

Biological Resources Technical Report
Temescal Valley Commerce Center Project Site
Unincorporated Riverside County, California

FINAL REPORT



HANS 190024, APN 283-160-043, GEO 00200040, CUP 20044

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GLOSSARY

AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
CAPSA	Criteria Area Plant Survey Areas
CDFG	California Department of Fish and Game (CDFW effective Jan 1 st 2013)
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranking
CWA	Clean Water Act
DBESP	Determination of Biological Equivalent or Superior Preservation
FESA	federal Endangered Species Act
GIS	Geographic Information System
HANS	Habitat Acquisition and Negotiation Strategy
JPR	Joint Project Review
MBTA	Migratory Bird Treaty Act
MSHCP	Multiple Species Habitat Conservation Plan
NCCP	Natural Communities Conservation Plan
NEPS	Narrow Endemic Plant Species
NEPSA	Narrow Endemic Plant Survey Areas
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NWPR	Navigable Water Protection Rule
OHWM	Ordinary High Water Mark
RCA	Western Riverside County Regional Conservation Authority
RCIP	Riverside County Integrated Project
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSC	California Species of Special Concern
SWRCB	State Water Resources Control Board
TPM	Tentative Parcel Map
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

EXECUTIVE SUMMARY

The 46.18-acre (14.12-acre offsite) Temescal Valley Commerce Center (60.30-acres total), is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Temescal Canyon Plan Area, Subunit 3 – Temescal Wash West and Proposed Extension of Existing Core 2. The Project Site is also located partially within MSHCP Criteria Areas 3035 and 3036, Cell Group F (Western Riverside County Regional Conservation Authority (RCA) Geographic Information System (GIS) Data Downloads 2020). Therefore, a Habitat Evaluation and Acquisition Negotiation Strategy (HANS) was conducted and issued on October 2020 (HANS 190024) and a Joint Project Review (JPR) is required.

The majority of the Project Site is flat and disturbed as a result of historic impacts associated with the operation of a concrete pipe manufacturing facility. The Project Site is also bisected by Temescal wash in the extreme northern corner and Coldwater Canyon along the western boundary. Remnant patches of Riversidean alluvial fan sage scrub, Riversidean sage scrub, and ornamental habitats persist. A total of 58.95 acres of vegetation communities will be directly impacted as a result of project implementation. Offsite impacts include road improvements, realignment of Temescal Canyon Road, realignment of Coldwater Canyon and outfall structure to Temescal Wash. Direct impacts to all vegetation communities will be mitigated to a level of less than significant by implementing Biological Mitigation and Avoidance Measure (**BIO-MM1** and **BIO-MM6**). A total of 1.35 acres of the Project Site is located within the Temescal Wash floodprone area. As referenced in HANS 190024, all 1.35 acres of the Project Site located within the Temescal Wash floodprone area will be dedicated as conserved land (**BIO-MM2**).

The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including Munz's onion, San Diego ambrosia, multi-stemmed dudleya, spreading navarretia, slender-horned spineflower, San Miguel savory, Hammitt's clay-cress, California Orcutt grass, and Wright's trichocoronis (RCA GIS Data Downloads 2020). No suitable habitat was documented or will be impacted onsite for MSHCP narrow endemic plants species (Glenn Lukos Associates 2021a). No MSHCP narrow endemic plant species were detected onsite and the project is consistent with MSHCP Section 6.1.3

The Project Site occurs completely within an MSHCP predetermined Survey Area for seven (7) criteria area plant species: Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, round-leaved filaree, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2020). No suitable soils were documented onsite for MSHCP criteria area plants (Glenn Lukos Associates 2021a). The project is consistent with MSHCP Section 6.3.2.

The Project Site is not located within an MSHCP Amphibian or Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2020). The project is consistent with MSHCP Section 6.3.2.

The Project Site occurs partially within a predetermined Survey Area for the burrowing owl. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2019 and 2021. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within the Project Site boundary during the focused survey effort. Regardless, at a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP (**BIO-MM3**).

No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common versatile fairy shrimp, the basin is not expected to be occupied by the Riverside fairy shrimp or vernal pool fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The project site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species.

No suitable habitat (riparian forest/woodlands) for the southwestern willow flycatcher or western yellow-billed cuckoo was detected within or adjacent to the Project Site. Suitable habitat for the least Bell's vireo was documented within and adjacent to the northern Project Site boundary (Temescal Wash). Focused USFWS protocol surveys were conducted during the spring of 2019 and 2021. A pair of Least Bell's vireo was detected within the Temescal Canyon Wash offsite impact areas during USFWS protocol surveys conducted during the spring of 2021. A total of 0.27-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (black willow, cottonwood, and mule fat scrub) will occur within the Temescal Wash offsite area. Impacts to least Bell's vireo would be reduced to less than significant with the implementation of four (4) MSHCP objectives for the protection of least Bell's vireo habitat and Biological Mitigation and Avoidance Measures (**BIO-MM6 and BIO-MM7**).

The Project Site possess vegetation including trees and shrubs expected to potentially provide nesting habitat for raptors and migratory birds protected under the California Department Fish and Game (CDFG) Code Section 3503. Loss of an active nest would be considered a potentially significant impact. Impacts to bird/raptor foraging and potential nesting habitat would be reduced to less than significant with the implementation of Biological Mitigation and Avoidance Measure (**BIO-MM4**).

Incidental MSHCP covered species documented during the focused surveys include the yellow warbler (Species of Special Concern (SSC)) and yellow-breasted chat SSC. Sensitive wildlife species expected to frequently or infrequently utilize the Project Site for movement, refugia, breeding and foraging include western spadefoot (SSC), orange-throated whiptail (California Watch List (CWL)), coastal western whiptail (SSC), red-diamond rattlesnake (SSC), coast horned lizard (SSC), Cooper's hawk (SSC), southern California rufous-crowned sparrow (CWL), Bell's sage sparrow (CWL), white-tailed kite

(State Fully Protected (SFP)), California horned lark (SWL), loggerhead shrike (SSC), coastal California gnatcatcher (Federally Threatened (FT), SSC), northwestern San Diego pocket mouse (SSC), Dulzura kangaroo rat (SSC), San Diego black-tailed jackrabbit (SSC), bobcat, and mountain lion. As previously stated, the MSHCP has determined that all of these sensitive species documented or potentially occurring within the Temescal Valley Commerce Center have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Potential impacts to these sensitive species will be mitigated by implementing Biological Mitigation and Avoidance Measures (**BIO-MM1** to **BIO-MM4**).

The Project Site falls within the Stephens' kangaroo rat (SKR) Fee Area outlined in the Riverside County SKR HCP. The project applicant shall pay the fees pursuant to County Ordinance 663.10 for the SKR HCP Fee Assessment Area as established and implemented by the County of Riverside (**BIO-MM5**).

Permanent impacts to 2.93-acre (0.25-acre riparian, 2.68-acre riverine), temporary impacts to 0.23-acre (0.08-acre riverine, 0.15-acre riparian) of MSHCP Section 6.1.2 Riparian/Riverine resources (3.16-acres total), and indirect impacts to 0.31-acre of MSHCP Section 6.1.2 Riparian/Riverine resources will be mitigated following review and approval of a DBESP by the County of Riverside EPD Regional Conservation Authority (RCA) and wildlife agencies. (**BIO-MM6**).

Permanent impacts to 2.93-acre, temporary impacts to 0.23-acre of California Department of Fish and Wildlife (CDFW), and 1.13-acre of USACE/RWQCB regulated resources will be mitigated following implementation of (**BIO-MM7**). Indirect impacts to the offsite, downstream Coldwater Canyon Creek, due to reduction in stream discharge associated with realignment of Coldwater Canyon Creek accounting for 0.31-acre will be mitigated through implementation of (**BIO-MM6** and **BIO-MM7**). The Project would require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside.

INTRODUCTION

The following biological technical report describes a detailed assessment of potential sensitive natural resources located within and immediately adjacent to the Temescal Valley Commerce Center Project Site. Specifically, the report has been prepared to support the California Environmental Quality Act (CEQA) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) documentation, compliance, and review process conducted by the County of Riverside Environmental Programs Division. As discussed below, the assessment includes a thorough literature review, site reconnaissance characterizing baseline conditions (including floral and faunal and dominate vegetation communities), focused sensitive species surveys, impact analysis, and proposed mitigation measures.

PROJECT LOCATION & DESCRIPTION

The 46.18-acre (14.12-acre offsite) Project Site (60.30-acres total), is located within Assessor's Parcel Number (APN) 283-160-043. Offsite impact areas associated with realigning Coldwater Canyon and road improvements to Temescal and Dawson Canyon Roads are located partially within existing Right-of-Ways (ROWs) and APNs 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009. The Project Site is located within United States Geological Survey (USGS) 7.5' Series Lake Mathews Quadrangle, Riverside County, Township 3 South, Range 6 West, Section 34. Specifically, the Project Site is located southeast and south of Dawson Canyon Road (Temescal Wash) and east of Temescal Canyon Road (Coldwater Canyon) as shown in Figure 1, *Regional Location Map*, and Figure 2, *Project Site Map*.

The Project Site is located within the Western Riverside County MSHCP Temescal Canyon Plan Area, Subunit 3 – Temescal Wash West and Proposed Extension of Existing Core 2. The Project Site is also located partially within MSHCP Criteria Areas 3035 and 3036, Cell Group F, as shown in Figure 3, *MSHCP Criteria Area and Photograph Key Map* (Western Riverside County Regional Conservation Authority (RCA) Geographic Information System (GIS) Data Downloads 2020). All 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land as detailed in HANS 190024 (Riverside County EPD 2020).

The majority of the Project Site is flat and disturbed as a result of historic impacts associated with the operation of a concrete pipe manufacturing facility. The Project Site is also bisected by Temescal Wash in the extreme northern corner and Coldwater Canyon along the western boundary. Remnant and reestablished disturbed patches of Riversidean alluvial fan sage scrub, Riversidean sage scrub, and ornamental habitats were documented onsite. The Temescal Valley Commerce Center Project would construct and operate one (1) last mile delivery station warehouse building that would total approximately 183,456 square feet (s.f.) and include associated improvements (e.g., parking areas, landscaping, walls/fences, utility infrastructure).

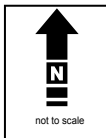


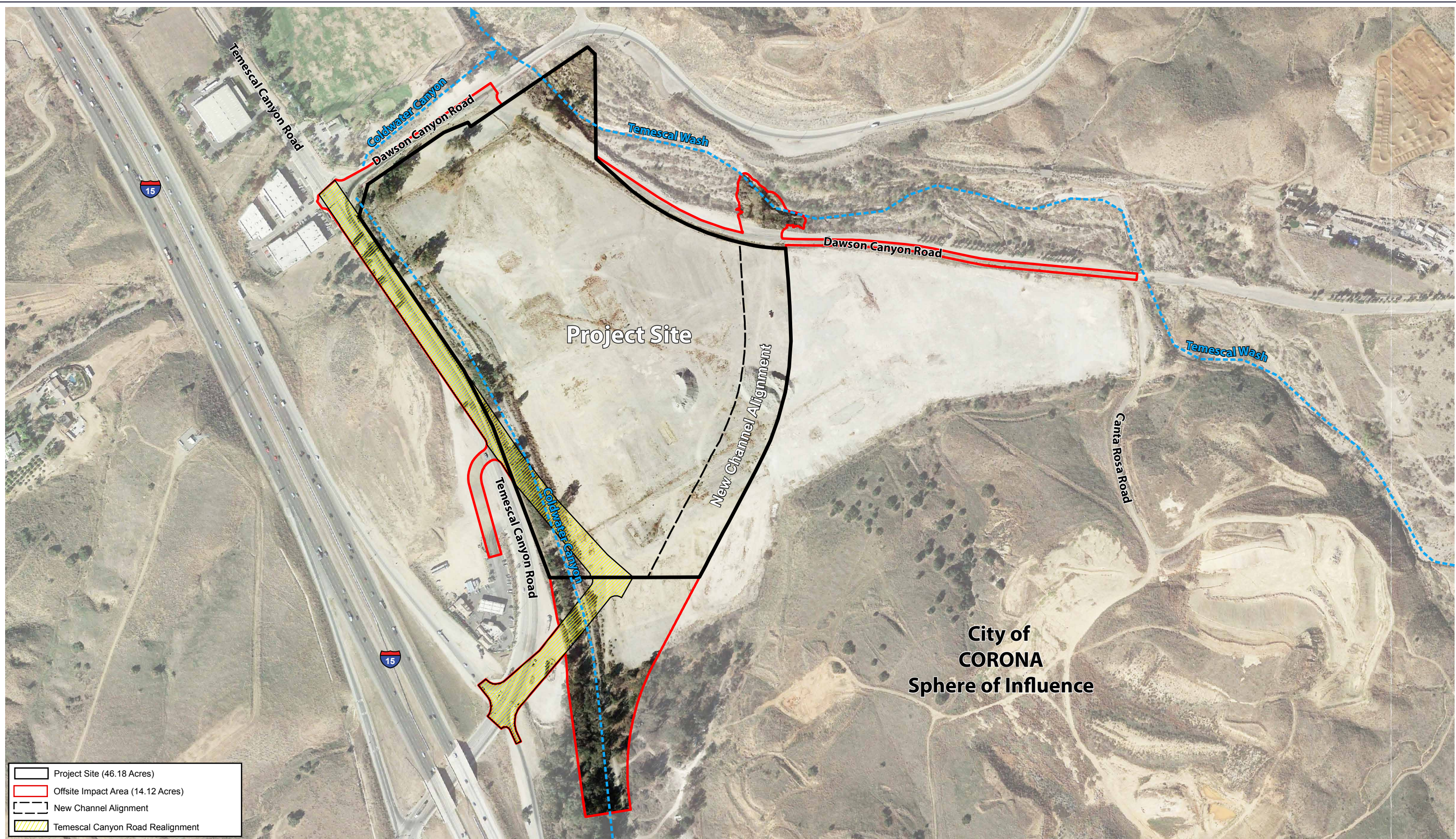
Project Site APN: 283-160-043

Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 1 - Regional Location Map

*Biological Resources Technical Report
Temescal Valley Commerce Project Site*

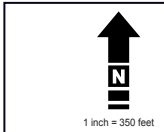


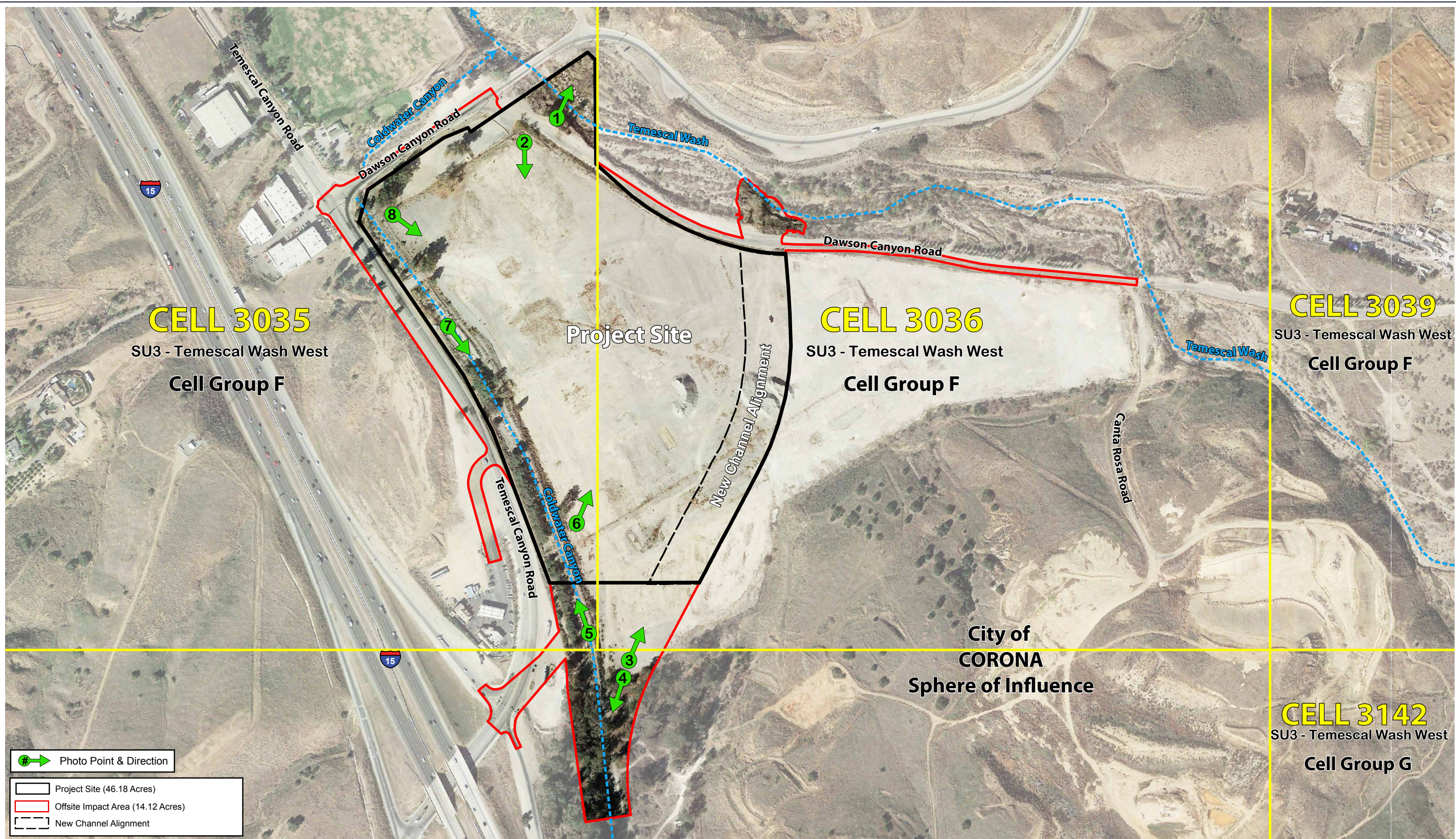


Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 2 - Project Site Map

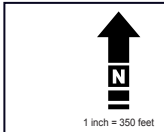
*Biological Resources Technical Report
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Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 3 - MSHCP Criteria Area and Photographic Key Map
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The Project would require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. The proposed confluence with Temescal Wash is currently a relatively undisturbed channel that will exhibit limited impacts associated with installation of an outfall for the relocated Coldwater Creek Channel. The area where Coldwater Creek will discharge to the site includes a well-defined low-flow channel and a terrace which is well above the low-flow channel, with a steep slope to the top of the Temescal Wash Bank. The low-flow channel is unvegetated with an algal mat and areas with adjacent mulefat scrub and Goodding's black willow forest. Terraces above the low flow channel support areas of sparse alluvial scrub. As stated by Glenn Lukos Associates:

"The proposed Temescal Business Park proposes to realign Coldwater Canyon Creek to its approximate historic location. The realignment would result in shifting the confluence approximately 1,000 feet upstream from the current discharge location. The realignment will result in potential impacts to riparian habitat within the 1,000 foot segment of Temescal Wash due to increased flows, and potential impacts to Coldwater Canyon Creek downstream of the site due to reduction of flows where an approximately 650-foot segment of Coldwater Canyon Creek, accounting for approximately 0.31 acre would exhibit reduced flows.

With the proposed realignment of Coldwater Canyon Creek, the total flow rate within Temescal Wash would be increased for the 1,000-foot reach between the proposed confluence and the existing confluence. This increase in flow also would result in an increase to water surface elevations and velocities. The increase in water surface elevations would range from 0.4 feet to 0.9 feet between the existing confluence location and the existing Dawson Canyon Road Bridge, 0.9 feet to 1.2 feet upstream of the bridge to the proposed confluence location, and transitioning from 0.5-foot increase to 0.0-foot increase upstream of the proposed confluence (with no measurable increase approximately 0.4 mile upstream of the proposed confluence). The increase in velocity would be approximately 0.5 feet per second (fps) in the reach from the existing confluence location to the proposed confluence location.

The area associated with the outfall that would discharge to Temescal Wash from the realigned Coldwater Canyon Creek supports riparian habitat, which extends immediately downstream consisting of black willow forest, mulefat scrub and alluvial scrub [see the attached Exhibit 5 from the application submitted to California Department of Fish and Wildlife]. Below this area, there is no areas consisting of riparian alliances with a mix of coastal sage scrub species, limited amounts of scalebroom and mule fat. Furthermore, the low-flow channel does not support vegetation. The species adjacent to the low-flow channel are commonly found in alluvial scrub that is highly adapted to high energy flows and the increase in velocities by 0.5 feet per second and depths ranging from 0.4 to 0.9 feet would not result in significant impacts to the vegetation.

Coldwater Canyon Creek was realigned in the late 1960's or early 1970's with the construction of the concrete pipe manufacturing facility that previously occupied the Project site. The path of the creek was shifted from the approximate center of the site to the western edge of the site parallel to Temescal Canyon Road and much of the drainage adjacent to the site has been channelized through the installation of rip rap to maintain the drainage in its current channel.” (Glenn Lukos Associates 2021b)

No fuel modification zones or weed abatement measures are required and therefore would not result in direct impacts to the proposed MSHCP Conservation Areas.

METHODOLOGY

LITERATURE REVIEW

Existing biological resource conditions within and adjacent to the Project Site were initially investigated through review of pertinent scientific literature. Federal register listings, protocols, and species data provided by the USFWS were reviewed in conjunction with anticipated federally listed species potentially occurring within the Project Site. The California Natural Diversity Database (CNDDDB 2020a), a CDFW Natural Heritage Division species account database, was also reviewed for all pertinent information regarding the locations of known occurrences of sensitive species in the vicinity of the property. In addition, numerous regional floral and faunal field guides were utilized in the identification of species and suitable habitats. Combined, the sources reviewed provided an excellent baseline from which to inventory the biological resources potentially occurring in the area. Other sources of information included the review of unpublished biological resource letter reports and assessments. Other CDFW reports and publications consulted include the following:

- Special Animals (CDFW 2020b);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2020c);
- Endangered, Threatened, and Rare Plants of California (CDFW 2020d); and
- Special Vascular Plants and Bryophytes List (CDFW 2020e).

FIELD SURVEYS

Reconnaissance surveys of the Project Site and offsite impact areas were conducted by Ruben Ramirez, Cadre Environmental on May 21st, 2019 and September 14th, 2020 in order to characterize and identify potential wildlife habitats, and to establish the accuracy of the data identified in the literature search and previous surveys.

An initial habitat assessment/survey for sensitive plants was conducted by Glenn Lukos Associates on August 20th 2019 and additional focused surveys were conducted on March 5th and August 12th 2020. (Glenn Lukos Associates 2021a).

Geologic and soil maps were examined to identify local soil types that may support sensitive taxa. Aerial photograph, topographic maps, and vegetation and rare plant maps prepared by previous studies in the region were used to determine community types and other physical features that may support sensitive plants/wildlife, uncommon taxa, or rare communities that occur within the Project Site.

The MSHCP has determined that all of the sensitive species potentially occurring within the Project Site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required for narrow endemic plant, criteria area, and specific wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" (MSHCP 2004). Based on the initial MSHCP review of predetermined Survey Areas, habitat assessments and focused surveys (as warranted) were conducted for the following twenty-two (22) species.

Criteria Area Species

- Parish's brittlebush (*Atriplex parishii*) [California Rare Plant Ranking (CRPR) List 1B.1];
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) [CRPR List 1B.2];
- thread-leaved brodiaea (*Brodiaea filifolia*) [Federally Threatened (FT)/State Endangered (SE), CRPR List 1B.1];
- smooth tarplant (*Centromadia pungens* ssp. *laevis*) [CRPR 1B.1];
- round-leaved filaree (*Erodium macrophyllum*) [CRPR List 2.1];
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) [CRPR List 1B.1];
- little mousetail (*Myosurus minimus* ssp. *apus*) [CRPR List 3.1].

Narrow Endemic Species

- Munz's onion (*Allium munzii*) [Federally Endangered (FE)/State Threatened, CRPR List 1B.1];
- San Diego ambrosia (*Ambrosia pumila*) [FE, CRPR 1B.1];
- slender-horned spineflower (*Dodecahema leptoceras*) [FE/SE, CRPR 1B.1];
- multi-stemmed dudleya (*Dudleya multicaulis*) [CRPR List 1B.2];
- spreading navarretia (*Navarretia fossalis*) [FT/SE, CRPR List 1B.1];
- California Orcutt grass (*Orcuttia californica*) [FE/SE, CRPR List 1B.1];
- San Miguel savory (*Clinopodium chandleri*, formerly *Satureja chandleri*) [CRPR List 1B.2];
- Hammitt's clay-cress (*Sibaropsis hammittii*) [CRPR 1B.2];
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) [CRPR List 2.1].

Section 6.1.2 Riparian, Riverine, Vernal Pool Species

- Riverside fairy shrimp (*Streptocephalus woottoni*) [FE];
- vernal pool fairy shrimp (*Branchinecta lynchi*) [FT];
- least Bell's vireo (*Vireo bellii pusillus*) [FE/SE;]
- southwestern willow flycatcher (*Empidonax traillii extimus*) [FE/SE];
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) [SE].

Wildlife Species

- burrowing owl (*Athene cunicularia*) [California Species of Special Concern (SSC)].

Vegetation Communities/Habitat Classification Mapping

Natural community names and hierarchical structure follows the CDFW “List of California Terrestrial Natural Communities” and/or Holland (1986) classification systems, which have been refined and augmented where appropriate to better characterize the habitat types observed onsite when not addressed by the MSHCP classification system.

Floristic Plant Inventory

A general plant survey was conducted throughout the Project Site during the initial reconnaissance in a collective effort to identify all species occurring onsite.

All plants observed during the survey efforts were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman (1993). Scientific nomenclature and common names used in this report generally follow Roberts et al. (2004) or Baldwin et al. (2012) for updated taxonomy. Scientific names are included only at the first mention of a species; thereafter, common names alone are used.

Wildlife Resources Inventory

All animals identified during the reconnaissance survey by sight, call, tracks, scat, or other characteristic sign were recorded onto a 1:200 scale orthorectified color aerial photograph or documented using a global positioning system (GPS). In addition to species actually detected, expected use of the site by other wildlife was derived from the analysis of habitats on the site, combined with known habitat preferences of regionally occurring wildlife species.

Vertebrate taxonomy followed in this report is according to the Center for North American Herpetology (2020 for amphibians and reptiles), the American Ornithologists’ Union (1988 and supplemental) for birds, and Baker et al. (2003) for mammals. Both common and scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Regional Connectivity/Wildlife Movement Corridors

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

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

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

MSHCP Riparian Bird Surveys

Based on results of the habitat assessment for Section 6.1.2 riparian bird species, focused surveys for the least Bell's vireo were conducted during the spring of 2019 and 2021. Suitable habitat for the least Bell's vireo was documented within and adjacent to the northern Project Site boundary (Temescal Wash). Following and concurrent with the initial habitat assessment conducted on May 21st, 2019 to determine the presence/absence of suitable habitat for sensitive riparian bird species within the Project Site, a total of eight (8) protocol least Bell's vireo surveys were conducted within the riparian corridor that bisects the property as illustrated in Figure 4, *Vegetation Communities Map*. All surveys followed the recommended USFWS (2001) guidelines. Specifically, guidelines for least Bell's vireo surveys require that at least eight (8) surveys be conducted from April 10th to July 31st.

The riparian habitats were systematically surveyed by Ruben Ramirez on May 21st, 31st, June 10th, 20th, 30th, July 10th, 16th, and 20th, 2019 by walking slowly and methodically along their margins. All observations of least Bell's vireo, including their behavior and breeding status were recorded and their locations noted. All surveys were conducted under optimal weather conditions and during early morning hours when bird activity is at a peak. Updated focused surveys were conducted by Ruben Ramirez on April 10th, 20th, 30th, May 9th, 20th, 30th, June 9th and 19th, 2021.

MSHCP Focused Burrowing Owl Surveys

In accordance with the MSHCP Burrowing Owl Survey Instructions (2006), survey protocol consists of two steps, Step I – Habitat Assessment and Step II – Locating Burrows and Burrowing Owls. Step II is comprised of two parts, Part A: Focused Burrow Surveys and Part B: Focused Burrowing Owl Surveys.

Each step is briefly outlined below, followed by the methodology and results of each survey conducted within the Project Site. All initial habitat assessment, burrow and focused surveys were conducted by Ruben Ramirez.

Surveys were conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys were not conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. None of the surveys were conducted within five (5) days of measurable precipitation. In addition to the MSHCP guidelines, field notes were taken daily. These notes recorded the date, location, animal species observed, and general habitat characteristics of each area and habitat examined that day.

Step I – Habitat Assessment

Step 1 of the MSHCP habitat assessment for burrowing owl consists of a walking survey to determine if suitable habitat is present onsite. Cadre Environmental conducted the habitat assessment on May 21st, 2019. Upon arrival at the Project Site, and prior to initiating the assessment survey, Cadre Environmental used binoculars to scan all suitable habitats on and adjacent to the property, including perch locations, to ascertain owl presence.

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

According to the MSHCP guidelines, if suitable habitat is present the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project Site boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. Results from the habitat assessment indicated that suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented within the property including foraging habitat documented throughout the Project Site. Accordingly, if suitable habitat is documented onsite, both Step II surveys and the 30-day pre-construction surveys are required in order to comply with the MSHCP guidelines.

Step II – Locating Burrows and Burrowing Owls

Concurrent with the initial habitat assessment, a detailed focused burrow survey was conducted and included documentation of appropriately sized natural burrows or suitable man-made structures that may be utilized by burrowing owl - as part of the MSHCP protocol, which is described below under Part A. Focused Burrow Survey. The MSHCP protocol indicated that no more than 100 acres should be surveyed per day/per biologist.

Part A: Focused Burrow Survey

A systematic survey for burrows, including burrowing owl sign, was conducted by walking across all suitable habitats mapped within the Project Site on May 21st, 2019. Pedestrian survey transects were spaced to allow 100% visual coverage of the ground surface. The distances between transect centerlines were no more than 20 meters (approximately 66 ft.) apart to the extent possible, and owing to the terrain and safety concerns along the northern Project Site boundary. Transect routes were also adjusted

to account for topography and in general ground surface visibility. All observations of suitable burrows or dens, natural or man-made, or sightings of burrowing owl, were recorded and mapped during the survey.

Part B: Focused Burrowing Owl Surveys

Eight (8) focused burrowing owl surveys (in addition to the initial focused burrow survey – Step II, Part A) were conducted on May 31st, June 20th, July 10th, August 10th, 2019, April 10th, 30th, May 20th and June 9th, 2021 from one hour before sunrise to two hours after sunrise (Cadre Environmental 2020, 2021). During visual surveys, all potentially suitable burrow or structure entrances were investigated for signs of owl occupation, such as feathers, tracks, or pellets, and carefully observed to determine if burrowing owls utilize these features, when present. All burrows are monitored at a short distance from the entrance, and at a location that would not interfere with potential owl behavior, when present. In addition to monitoring potential burrow locations, all suitable habitats in the Project Site were walked along transects averaging 20 meters (approximately 66 feet) between centerlines to the extent possible.

Jurisdictional Delineation

A formal jurisdictional delineation was conducted by Glenn Lukos Associates in October and November 2020 (Glenn Lukos Associates 2020a). The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the CDFW pursuant Sections 1600 *et seq.* of the California Fish and Game Code (CDFG Code); and Riparian/Riverine Areas and Vernal Pools defined in Section 6.1.2 of the Western Riverside County MSHCP. As stated by Glenn Lukos Associates 2020a:

“Prior to beginning the field-delineation a color aerial photograph, a topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of USACE/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army USACE of Engineers 1987 Wetland Delineation Manual¹ (Wetland Manual) and the 2008 Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)².

¹ Environmental Laboratory. 1987. USACE of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

² U.S. Army USACE of Engineers. 2008. Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

While in the field the limits of USACE and CDFW jurisdiction were recorded using sub-meter GPS technology.” (Glenn Lukos Associates 2020a)

EXISTING ENVIRONMENTAL SETTING

SURROUNDING LAND USES/TOPOGRAPHY/SOILS

The majority of the Project Site is flat and disturbed as a result of historic impacts associated with the operation of a concrete pipe manufacturing facility. The Project Site is also bisected by Temescal wash in the extreme northern corner and Coldwater Canyon along the western boundary. Remnant patches of disturbed Riversidean alluvial fan sage scrub, Riversidean sage scrub, and ornamental habitats persist as illustrated in Figure 4, *Vegetation Communities Map* and Figures 5 to 8, *Current Project Site Photographs*. The Soil Survey of Western Riverside Area has the following soils mapped within the boundary of the Project Site as shown on Figure 9, *Soils Association Map*:

- TeG – Terrace escarpments.
- GdC – Garretson gravelly very fine sandy loam, 2 to 8 percent slopes.
- CmC – Cortina cobbly loamy sand, 2 to 8 percent slopes
- CnC - Cortina gravelly coarse sandy loam, 2 to 8 percent slopes
- CIC – Cortina gravelly loamy sand, 2 to 8 percent slopes
- SgC – San Emigdio loam, 2 to 8 percent slopes

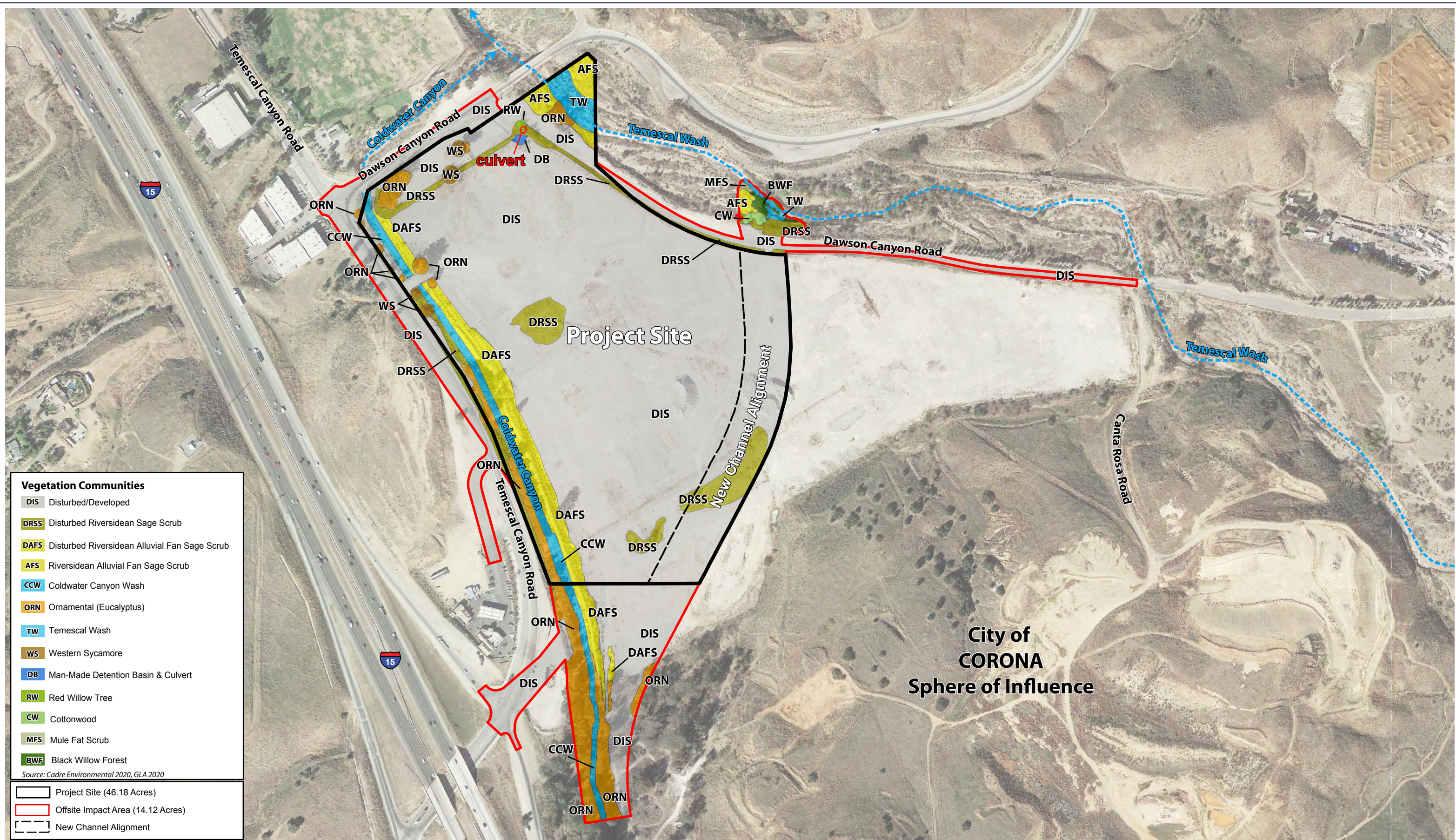
VEGETATION COMMUNITIES

Natural community names follow the CDFW “List of California Terrestrial Natural Communities” and/or Holland (1986) classification system, which have been refined and where appropriate to better characterize the habitat types onsite when not addressed by the MSHCP classification system. Acreage totals for vegetation communities documented onsite and offsite are listed in Table 1. *Vegetation Communities Acreages*.

Table 1. Vegetation Communities Acreages

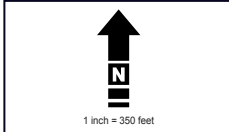
*Vegetation Type	Acres (onsite)	Acres (offsite)	Acres (total)
Disturbed/Developed	37.41	9.71	47.12
Disturbed Riversidean Sage Scrub	2.87	0.72	3.59
Riversidean Alluvial Fan Sage Scrub	0.64	0.13	0.77
Disturbed Riversidean Alluvial Fan Sage Scrub	2.23	0.47	2.70
Ornamental & Native Trees	1.31	2.21	3.52
Coldwater Canyon	1.18	0.51	1.69
Temescal Wash	0.54	0.10	0.64
Black Willow Forest	0.00	0.17	0.17
Cottonwood	0.00	0.07	0.07
Mule Fat Scrub	0.00	0.03	0.03
TOTALS	46.18	14.12	60.30

*Source: Cadre Environmental 2020, GLA 2020.



Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 4 - Vegetation Communities Map
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PHOTOGRAPH 1 - Northward view of Temescal Wash located within the northwestern region of the Project Site.



PHOTOGRAPH 2 - Southward view of the northwestern region of the Project Site.

Refer to Figure 3- MSHCP Criteria Area and Photograph Key Map

Figure 5 - Current Project Site Photographs
*Biological Resources Technical Report
Temescal Valley Commerce Center Project Site*





PHOTOGRAPH 3 - Northeast view of offsite new channel alignment.



PHOTOGRAPH 4 - Southwest view of offsite new channel alignment.

Refer to Figure 3- MSHCP Criteria Area and Photograph Key Map

Figure 6 - Current Project Site Photographs
*Biological Resources Technical Report
Temescal Valley Commerce Center Project Site*





PHOTOGRAPH 5 - Northeast view of Project Site from southeast corner.



PHOTOGRAPH 6 - Northeast view of Project Site from southwest corner.

Refer to Figure 3- MSHCP Criteria Area and Photograph Key Map

Figure 7 - Current Project Site Photographs
*Biological Resources Technical Report
Temescal Valley Commerce Center Project Site*





PHOTOGRAPH 7 - Southeast view of Coldwater Canyon located onsite and adjacent to Temescal Canyon Road.

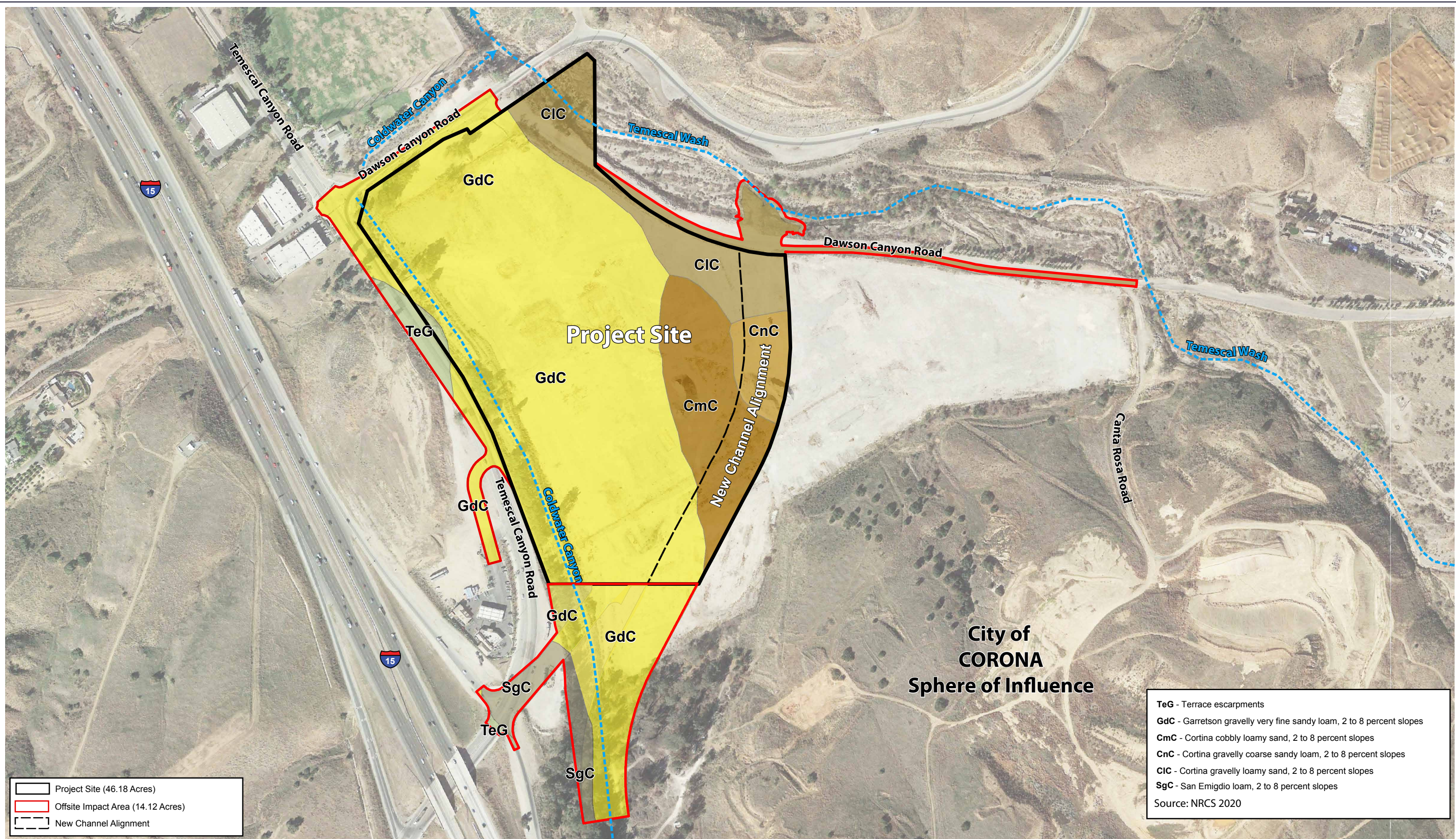


PHOTOGRAPH 8 - Southeast view of Project Site from northwest corner.

Refer to Figure 3- MSHCP Criteria Area and Photograph Key Map

Figure 8 - Current Project Site Photographs
*Biological Resources Technical Report
Temescal Valley Commerce Center Project Site*

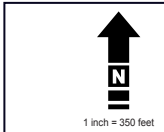




Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 9 - Soils Association Map

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Disturbed/Developed

The majority of the Project Site is dominated by heavily disturbed and altered soils generally devoid of vegetation. Species documented within this habitat type include stinknet (*Oncosiphon piluliferum*), black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), red-stemmed filaree (*Erodium cicutarium*), white-stemmed filaree (*Erodium moschatum*), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*), foxtail chess (*Bromus madritensis* ssp. *rubens*), mule fat (*Baccharis salicifolia*), Boccone's sand spurry (*Spergularia bocconi*), poverty weed (*Iva axillaris*), common knotweed (*Polygonum arenastrum*), and salt heliotrope (*Heliotropium curassavicum*).

Developed regions include the paved portions of Temescal and Dawson Canyon Roads.

The man-made detention basin and culvert was documented within the disturbed habitat in the northwest corner of the Project Site is generally devoid of vegetation. A single red willow (*Salix laevigata*) tree is located north of the basin.

Disturbed Riversidean Sage Scrub

Disturbed Riversidean sage scrub occurs along the northern and adjacent to the western Project Site boundary. Common species documented within this habitat type include brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), annual sunflower (*Helianthus annuus*) yellow sweetclover (*Melilotus officinalis*), caterpillar phacelia (*Phacelia cicutaria*), common sand aster (*Corethrogyne filaginifolia*), deerweed (*Acmispon glaber*), telegraph weed (*Heterotheca grandiflora*), clustered tarweed (*Deinandra fasciculata*) prickly sow thistle (*Sonchus asper*), horehound (*Marrubium vulgare*), Italian thistle (*Carduus pycnocephalus*), and pineapple weed (*Matricaria discoidea*).

Disturbed Riversidean Alluvial Fan Sage Scrub/Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub including disturbed patches equally dominated by ruderal species is present within and adjacent to Temescal Wash and Coldwater Canyon. Species documented within these vegetation communities include scale broom (*Lepidospartum squamatum*), California buckwheat, mugwort (*Artemisia douglasiana*), tarragon (*Artemisia dracuncululus*), western lavender (*Verbena lasiostachys*), coyote brush (*Baccharis pilularis*), sweetbush (*Bebbia juncea*), coast goldenbush (*Isocoma menziesii*), and California brickellbush (*Brickellia californica*).

Ornamental & Native Trees

Eucalyptus (*Eucalyptus globulus*) woodland habitat and four (4) native western sycamore (*Platanus racemosa*) trees were documented within the Project Site along the western boundary primarily adjacent to Coldwater Canyon.

Black Willow Forest, Cottonwood and Mule Fat Scrub

The offsite impact area located within Temescal Wash black willow forest, cottonwood trees and a patch of mule fat scrub. Species documented within these regions include black willow (*Salix gooddingii*), mule fat and Fremont's cottonwood trees (*Populus fremontii*).

GENERAL WILDLIFE SPECIES

General wildlife species documented on site include but are not limited to red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), rock dove (*Columba livia*), American kestrel (*Falco sparverius*), northern mockingbird (*Mimus polyglottos*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), cliff swallow (*Petrochelidon pyrrhonota*), American crow (*Corvus brachyrhynchos*), wrentit (*Chamaea fasciata*), greater roadrunner (*Geococcyx californianus*), California towhee (*Pipilo crissalis*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), desert cottontail rabbit (*Sylvilagus audubonii*), and coachwhip (*Masticophis flagellum*).

JURISDICTIONAL RESOURCES

The following section is excerpted and/or summarized directly from the following document prepared by Glenn Lukos Associates "Jurisdictional Delineation of the Corona Clay Project Site, an Approximate 46.18-Acre Property Located in the City of Corona Sphere of Influence, Riverside County", as outlined in Table 2, USACE Jurisdictional Resources, Table 3, CDFW/MSHCP Jurisdictional Resources, and as shown in Figure 10, Jurisdictional Resources Map.

As summarized in the following sections CDFW jurisdiction exceeds USACE jurisdiction and any project mitigation necessary to satisfy the requirements of CDFW would also satisfy the requirement of the USACE and Regional Water Quality Control Board (RWQCB).

**Table 2.
USACE Jurisdictional Resources**

Drainage	Type	Location	Total (acres/ linear feet)
Coldwater Canyon Creek			
Coldwater Canyon Creek	Non-Wetland Intermittent	Onsite	0.50/1,847
Coldwater Canyon Creek	Non-Wetland Intermittent	Offsite	0.31/966
Temescal Wash			
Temescal Wash	Non-Wetland Intermittent	Onsite	0.60/279
Temescal Wash	Non-Wetland Intermittent	Offsite	0.32/310

Source: GLA 2020a

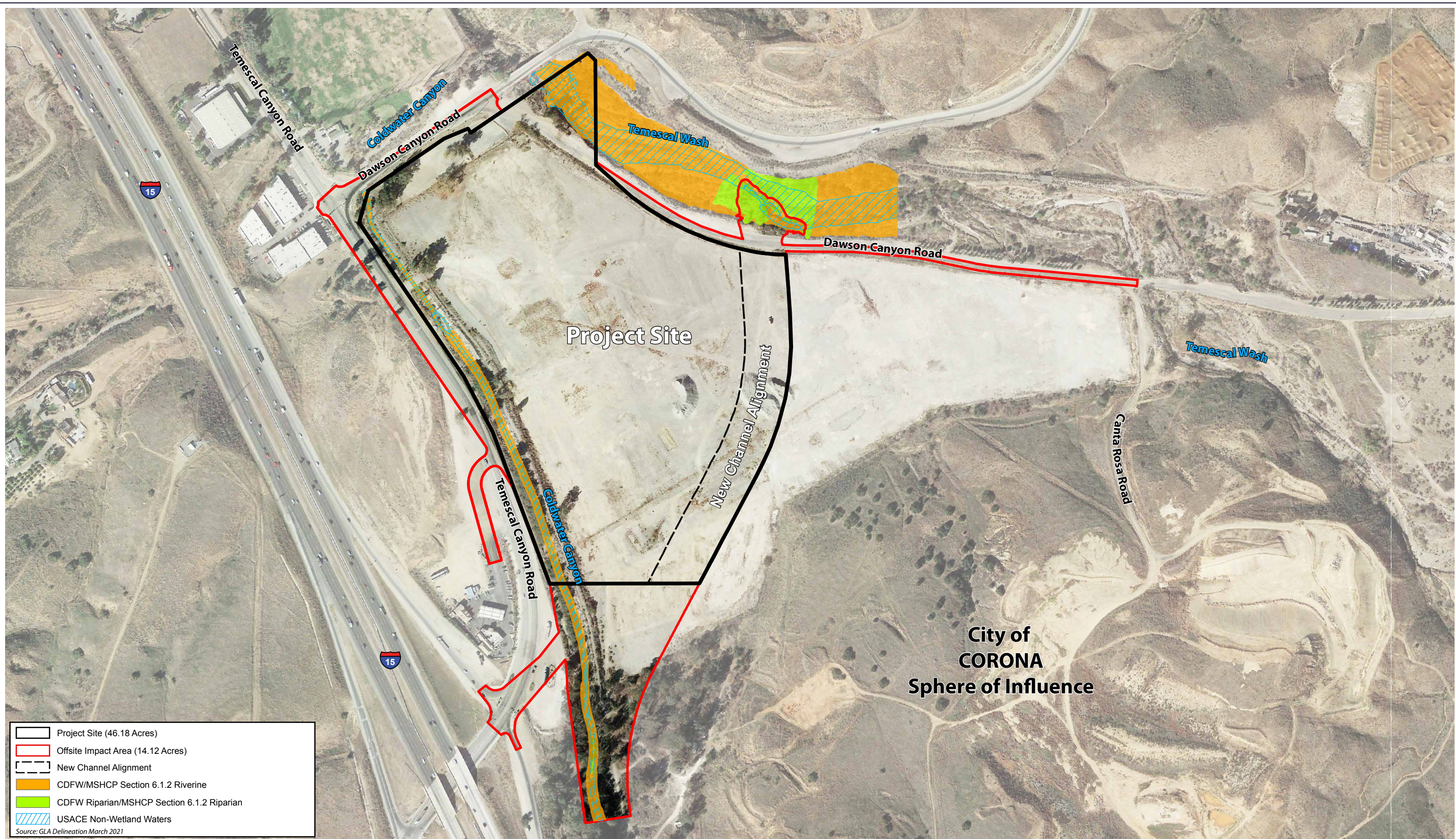


Figure 10 - Jurisdictional Resources Map
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Temescal Valley Commerce Project Site

USACE Jurisdiction

USACE jurisdiction within the Project site is associated with two intermittent drainages, Temescal Wash and Coldwater Canyon Creek. A limited portion of Temescal Wash traverses the northwestern corner of the Project Site and an additional segment of Temescal Wash parallels the northern project boundary and is discussed below. Coldwater Canyon Creek traverses the western boundary of the Project Site, and is tributary to Temescal Wash. Historically, Coldwater Canyon Creek extended across the middle portion of the Project site and was subsequently diverted into an earthen channel that extends along the western site boundary. The discussion of Coldwater Canyon Creek includes offsite areas to the south of the Project Site that would be subject to impacts associated with widening of Temescal Canyon Road.

**Table 3.
CDFW/MSHCP Jurisdictional Resources**

Drainage	Type	Location	Total (acres)
Coldwater Canyon Creek			
Coldwater Canyon Creek	Non-Riparian Intermittent	Onsite	1.22
Coldwater Canyon Creek	Non-Riparian Intermittent	Offsite	1.30
Coldwater Canyon Creek	Riparian Intermittent	Offsite	0.02
Coldwater Canyon Creek Total			2.54
Temescal Wash			
Temescal Wash	Non-Riparian Intermittent	Onsite	1.02
Temescal Wash	Non-Riparian Intermittent	Offsite	0.22
Temescal Wash	Intermittent – Alluvial Scrub	Offsite	0.13
Temescal Wash	Intermittent – Black Willow	Offsite	0.17
Temescal Wash	Intermittent – Cottonwood	Offsite	0.07
Temescal Wash	Intermittent – Mulefat Scrub	Offsite	0.03
Temescal Total			1.64

Source: GLA 2020a

Coldwater Canyon Creek

Coldwater Canyon Creek within the Project site totals approximately 0.50 acres of non-wetland, intermittent waters of the U.S. Coldwater Canyon Creek extends along the western boundary of the site for approximately 1,847 linear feet before discharging offsite beneath Dawson Canyon Road through two 7 by 14-foot concrete box culverts. Coldwater Canyon Creek ultimately discharges to the northwest of the Project Site into Temescal Wash. The offsite downstream segment accounts for 0.31acre of non-wetland intermittent waters.

Coldwater Canyon Creek exhibits an OHWM ranging from 10 to 16 feet in width and was indicated by the presence of a defined channel with algal mats, debris wrack, and shelving and terracing. Vegetation associated with the creek bank and channel consists

of native and non-native species, including: scale broom (*Lepidospartum squamatum*, Facultative upland (FACU)), brittlebush (*Encelia farinosa*, Upland (UPL)), mugwort (*Artemisia douglasiana*, Facultative (FAC)), stinkweed (*Dittrichia graveolens*, UPL), oleander (*Nerium oleander*, UPL), castor bean (*Ricinus communis*, FACU), poison oak (*Toxicodendron diversilobum*, FACU), salt cedar (*Tamarix*, FAC), tarragon (*Artemisia dracuncululus*, UPL), sweetbush (*Bebbia juncea*, UPL), mule fat (*Baccharis salicifolia*, FAC), a canopy of blue-gum eucalyptus (*Eucalyptus globulus*, UPL), California sagebrush (*Artemisia californica*, UPL), and a few scattered black willow (*Salix gooddingii*, Facultative Wetland (FACW)) individuals.

Temescal Wash

The northwestern corner of the Project Site is traversed by a segment of Temescal Wash which totals approximately 0.60 acre of non-wetland, intermittent waters of the U.S. The channel consists of finer substrates mixed with gravel and cobble. Vegetation along the channel includes giant reed (*Arundo donax*, FACW), scale broom (*Lepidospartum squamatum*, FACU), brittlebush (*Encelia farinosa*, UPL), mugwort (*Artemisia douglasiana*, FAC), stinkweed (*Dittrichia graveolens*, UPL), oleander (*Nerium oleander*, UPL), castor bean (*Ricinus communis*, FACU), poison oak (*Toxicodendron diversilobum*, FACU), salt cedar (*Tamarix*, FAC), tarragon (*Artemisia dracuncululus*, UPL), sweetbush (*Bebbia juncea*, UPL), mule fat (*Baccharis salicifolia*, FAC). The OHWM associated with this segment of Temescal Wash averages approximately 33 feet in width.

Before reaching the northwest corner of the site where the site is traversed by Temescal Wash, Temescal Wash parallels the northern project boundary of the site, remaining offsite. As a component of the Project, Coldwater Creek will be realigned and will discharge to Temescal Wash offsite near the Northeast corner of the site. The area where Coldwater Creek will discharge to the site includes a well-defined low-flow channel and a terrace which is well above the low-flow channel, with a steep slope to the top of the Temescal Wash Bank. The low-flow channel is unvegetated with an algal mat and areas with adjacent mulefat scrub dominated by mulefat (*Baccharis salicifolia*, FAC) and Goodding's black willow forest dominated by Goodding's black willow (*Salix gooddingii*, FACW) and red willow (*Salix laevigata*, FACW) in the canopy with mule fat in the understory. Terraces above the low flow channel support areas of sparse alluvial scrub dominated by sweetbush (*Bebbia juncea*, UPL), mule fat (*Baccharis salicifolia*, FAC), and scale broom (*Lepidospartum squamatum*, FACU).

Non-Jurisdictional Drainage Ditch

The site contains a man-made drainage swale that was used to capture drainage as part of the mining operation, that extends along the eastern and southeastern boundaries of the Project Site. Vegetation associated with the drainage swale include tocalote (*Centaurea melitensis*, UPL), summer mustard (*Hirschfeldia incana*, UPL), annual fescue (*Festuca myuros*, FACU), scale broom (*Lepidospartum squamatum*, FACU), salt cedar (*Tamarix ramosissima*, FAC), one black willow, slender wild oat (*Avena barbata*), and soft brome (*Bromus hordeaceus*, FACU). The drainage swale was excavated on dry land and drains primarily uplands; and as such, it is excluded from the definition of WOTUS.

CDFW Jurisdiction

CDFW jurisdiction is associated with Coldwater Canyon Creek and Temescal Wash described above and is summarized by site-specific descriptions outlined below. CDFW jurisdiction includes all areas of USACE jurisdiction and extend beyond the OHWM to the top of bank or canopy of associated riparian habitat.

Coldwater Canyon Creek

Coldwater Canyon Creek within the Project Site totals approximately 1.13 acres of CDFW jurisdiction, none of which consists of riparian habitat with the exception of a few scattered black willows and a few individuals of mule fat (*Baccharis salicifolia*). Coldwater Canyon Creek traverses along the western boundary of the site for approximately 1,847 linear feet before it extends offsite beneath Dawson Canyon Road through two 7 x 14-foot concrete box culverts. Coldwater Canyon Creek discharges northwest of the Project Site into Temescal Wash. The upstream offsite segment accounts for 1.32-acre, of which 0.02-acre consists of riparian habitat and extends from upstream of the site to the property boundary totaling 967 liner feet.

Coldwater Canyon Creek, both onsite and offsite, exhibits a well-defined channel and signs of intermittent flow with top the of bank ranging from 17 to 50 feet in width. Vegetation associated with the creek bottom and lower portions of the bank include native and non-native species, including: scale broom (*Lepidospartum squamatum*), brittlebush (*Encelia farinosa*), mugwort (*Artemisia vulgaris*), stinkweed (*Dittrichia graveolens*), oleander (*Nerium oleander*), castor bean (*Ricinus communis*), poison oak (*Toxicodendron diversilobum*), salt cedar (*Tamarix*), tarragon (*Artemisia dracuncululus*), sweetbush (*Bebbia juncea*), mulefat (*Baccharis salicifolia*), a canopy of blue-gum eucalyptus (*Eucalyptus globulus*), California sagebrush (*Artemisia californica*), and a few scattered black willow (*Salix gooddingii*) individuals. The top bank supports upland scrub species including sweet bush, scale broom, California sage brush and California buckwheat.

Temescal Wash

The northwestern corner of the Project Site is traversed by segment of Temescal Wash which totals approximately 1.02 acre of CDFW jurisdictional streambed that includes a low-flow channel, and adjacent areas that exhibit occasional flows. Thus, the area of CDFW jurisdiction associated with Temescal Wash averages approximately 228 feet in width. Vegetation along the channel includes giant reed, scale broom, brittlebush, stinkweed (*Dittrichia graveolens*, UPL), castor bean (*Ricinus communis*, FACU), salt cedar (*Tamarix*, FAC), tarragon (*Artemisia dracuncululus*, UPL), sweetbush (*Bebbia juncea*, UPL), and mule fat (*Baccharis salicifolia*, FAC). Before reaching the northwest corner of the site where the site is traversed by Temescal Wash, Temescal Wash parallels the northern project boundary of the site, remaining offsite. As a component of the Project, Coldwater Creek will be realigned and will discharge to Temescal Wash offsite near the Northeast corner of the site. As noted above, the area where Coldwater Creek will discharge to the site includes a well-defined low-flow channel and a terrace which is well above the low-flow channel, with a steep slope to the top of the Temescal Wash Bank. The low-flow channel is unvegetated with an algal mat and areas with

adjacent mulefat scrub dominated by mule fat (*Baccharis salicifolia*, FAC) and Goodding's black willow forest dominated by Goodding's black willow (*Salix gooddingii*, FACW) and red willow (*Salix laevigata*, FACW) in the canopy with mulefat in the understory. Two large Fremont cottonwood trees (*Populus fremontii*, FAC) are growing from the toe of the steep slope.

MSHCP Riparian/Riverine/Vernal Pool Resources

Regulated activities within inland streams, wetlands and riparian areas in Western Riverside County California fall under the jurisdiction of the MSHCP. The MSHCP requires, among other things, assessments for riparian/riverine and vernal pool resources. As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas, and vernal pools are required, as currently mandated by CEQA, using available information augmented by project-specific mapping provided to and reviewed by the permittee's biologist(s). Riparian/riverine areas and vernal pools are defined for this section as follows in accordance with Section 6.1.2, Vol. I, of the Final MSHCP Plan:

“Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.” (MSHCP 2004)

It is assumed the first part of the definition defines riparian habitat, and the second part defines riverine areas. Vernal pools are defined as:

“...seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season”. (MSHCP 2004)

No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common versatile fairy shrimp, the basin is not expected to be occupied by the Riverside fairy shrimp or vernal pool fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The Project Site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species.

As noted in Table 3, *CDFW/MSHCP Jurisdictional Resource* and as shown in Figure 10, *Jurisdictional Resources Map*, a total of 4.18 acres of MSHCP Section 6.1.2 riparian and riverine resources were documented onsite (Glenn Lukos Associates 2020a). An MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) will be required.

SENSITIVE BIOLOGICAL RESOURCES

The following discussion describes the plant and wildlife species present, or potentially present within the property boundaries, that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations, principally due to the species' declining or limited population sizes, usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected sensitive species are classified by state and/or federal resource management agencies, or both, as threatened or endangered, under provisions of the state and federal endangered species act. Vulnerable or "at-risk" species that are proposed for listing as threatened or endangered (and thereby for protected status) are categorized administratively as "candidates" by the USFWS. CDFW uses various terminology and classifications to describe vulnerable species. There are additional sensitive species classifications applicable in California. These are described below.

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

Plants: USFWS (2020), CNDDDB (CDFW 2020a), CDFW (2020d, 2020e), CNPS (2020), and Skinner and Pavlik (1994),

Wildlife: California Wildlife Habitat Relationships (2008), USFWS (2020), CNDDDB (CDFW 2020a), and CDFW (2020b, 2020c).

Habitats: CNDDDB (CDFW 2020a, 2020f).

FEDERAL PROTECTION AND CLASSIFICATIONS

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range..." Threatened species are defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined as follows in Section 3(18) of the FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification

as forms of a “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. Recently, the USFWS instituted changes in the listing status of former candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing at this time) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field offices have issued memoranda stating that former C2 species are henceforth to be considered Federal Species of Concern. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS. For purposes of this assessment, the following acronyms are used for federal status species:

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

The designation of critical habitat can also have a significant impact on the development of land designated as “*critical habitat*.” The FESA prohibits federal agencies from taking any action that will “*adversely modify or destroy*” critical habitat (16 U.S.C. § 1536(a)(2)). This provision of the FESA applies to the issuance of permits by federal agencies. Before approving an action affecting critical habitat, the federal agency is required to consult with the USFWS who then issues a biological opinion evaluating whether the action will “*adversely modify*” critical habitat. Thus, the designation of critical habitat effectively gives the USFWS extensive regulatory control over the development of land designated as critical habitat.

The MBTA makes it unlawful to “*take*” any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the United States and Great Britain, the Republic of Mexico, Japan, and the Union of Soviet States. For purposes of the MBTA, “*take*” is defined as to pursue, hunt, capture, kill, or possess or attempt to do the same.

The Bald Eagle and Golden Eagle Protection Act explicitly protects the bald eagle and golden eagle and imposes its own prohibition on any taking of these species. As defined in this act, take means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or disturb. Current USFWS policy is not to refer the incidental take of bald eagles for prosecution under the Bald Eagle and Golden Eagle Protection Act (16 U.S.C. 668-668d).

STATE PROTECTION AND CLASSIFICATIONS

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

Article 3, Sections 2080 through 2085, of CESA addresses the taking of threatened or endangered species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided..." Under CESA, "take" is defined as "...hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require "...permits or memorandums of understanding..." and can be authorized for "...endangered species, threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

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

SE	State Endangered
ST	State Threatened

SCE	State Candidate Endangered
SCT	State Candidate Threatened
SFP	State Fully Protected
SP	State Protected
SR	State Rare
SSC	California Species of Special Concern
CWL	California Watch List

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

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

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

As stated by the CNPS:

“Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is

present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.” (CNPS 2010)

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

SENSITIVE HABITATS

As stated by CDFW:

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

One (1) sensitive plant community was documented onsite including Riversidean alluvial fan sage scrub (32.070.00, Scale broom scrub) (G3, S3). These rankings are based on their degree of imperilment as measured by rarity, trends, and threats. Global (G) and State (S) ranks of “G3 and S3” characterize habitats that are of high inventory priority and vulnerable, while ranks of “G1 and S1” characterize habitats that are considered critically imperiled.

SENSITIVE PLANTS

The following section is excerpted and/or summarized based on the results of the following document “*Rare Plant Habitat Assessment and Focused Surveys for HANS 190024 – Temescal Canyon Road and Dawson Canyon Road Warehouse Site (APN 283-160-043, Riverside County, California (Glenn Lukos Associates 2021a)*”

The following discussion is presented in three parts:

- I) MSHCP species that can be excluded from the Project Site based on the lack of suitable habitat onsite; and
- II) additional special-status species found, if present, onsite.

I: Narrow Endemic and Criteria Area Plant Species Subject to Focused Surveys or Evaluated by Habitat Suitability Assessment and Not Found or Expected to Occur Onsite

Narrow Endemic Plants Survey Area (NEPSA): The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, slender-horned spineflower, San Miguel savory, Hammitt's clay-cress, California Orcutt grass, and Wright's trichocoronis (RCA GIS Data Downloads 2020). Suitable soil conditions and limited areas of native vegetation were potentially documented onsite for four (4) MSHCP narrow endemic sensitive plant species, San Diego ambrosia, slender horned spineflower, San Miguel savory and Wright's trichocoronis as shown in Table 4, *Sensitive Plant Species with Potential to Occur Onsite*. The potential need for these focused MSHCP sensitive plant surveys are addressed below pursuant to MSHCP Section 6.1.3.

Criteria Area Plants Survey Area (CAPSA): The Project Site occurs completely within an MSHCP predetermined Survey Area for seven (7) criteria area plant species: Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, round leaved filaree, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2020). No suitable soils were documented onsite for MSHCP criteria area plants. No additional surveys are required as outlined in Table 4, *Sensitive Plant Species with Potential to Occur Onsite*.

II. Additional Special-Status Plant Species Found Onsite

No state or federally listed threatened or endangered plant species were detected or expected to occur onsite. No other CNPS, special-status plants, or species of local concern were observed onsite or expected to be present onsite as outlined in Table 4, *Sensitive Plant Species with Potential to Occur Onsite*.

Site Conditions

The Project Site includes a large mostly flat area that has been subject to past mining and associated support operations. The majority of the Project Site is dominated by heavily disturbed and altered soils generally devoid of vegetation. Species documented within this habitat type include mostly non-native annuals typical of long-term disturbance on the site, including invasive species such as stinknet and stink wort (*Dittrichia graveolens*). Other non-native species common on the site include black mustard, tocalote, red-stemmed filaree, white-stemmed filaree, prickly lettuce, Russian thistle, and foxtail chess. Occasional native species include mule fat (*Baccharis salicifolia*), Boccone's sand spurry (*Spergularia bocconi*), poverty weed, common knotweed, and salt heliotrope.

The western edge of the Project Site is traversed by Coldwater Canyon, which historically extended across the central portion of the site and was re-aligned and channelized prior to 1980 along the western site boundary. Vegetation associated with the creek bank and channel consists of native and non-native species, including: scale broom, brittlebush, mugwort, stink wort, oleander (*Nerium oleander*), castor bean (*Ricinus communis*) poison oak (*Toxicodendron diversilobum*), salt cedar (*Tamarix, ramosissima*), tarragon (*Artemisia dracunculus*), sweetbush (*Bebbia juncea*), mulefat, a canopy of blue-gum eucalyptus, California sagebrush, and a few scattered black willow (*Salix gooddingii*) individuals.

Consistent with the disturbed conditions across most of the site, a review of historic aerial photographs beginning in 1994 extending through the present shows intense land uses during this period. An aerial from 1980 depicts land use very similar to December 2003 and March 2011 that show the intensity of the land use on the site that persisted for over 30 years until the operations on site were abandoned in 2014. The site has been vacant since 2014. The intense land uses during this period resulted in elimination of nearly all native habitat from the site, except for a narrow strip of disturbed Riversidean alluvial fan sage scrub on the eastern edge of Coldwater Canyon. Since the mining operation was abandoned, small patches of native vegetation that has colonized localized areas and support highly opportunistic species that include brittlebush, California sagebrush, California buckwheat, annual sunflower, yellow sweetclover, caterpillar phacelia, common sand aster, deerweed, telegraph weed, clustered tarweed and non-natives such as prickly sow thistle, horehound, Italian thistle, and pineapple weed.

Habitat/Suitability Assessment for CAPSA, NEPSA, Other Special-Status Plants

As summarized in Table 4, *Sensitive Plant Species with Potential to Occur Onsite*, the Project Site was evaluated to determine whether conditions were suitable for CAPSA, NEPSA and/or other special-status plant species. Each of these is addressed below.

Habitat/Suitability Assessment for CAPSA Plants

The Project Site was evaluated for suitable conditions for seven (7) criteria area plant species: Coulter's goldfields, Davidson's saltscale, little mouseltail, Parish's brittlescale, round leaved filaree, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2020). No suitable soils were documented onsite for MSHCP criteria area plants. No additional surveys are required due to lack of suitable soils.

Habitat/Suitability Assessment for NEPSA Plants

The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, slender-horned spineflower, San Miguel savory, Hammitt's clay-cress, California Orcutt grass, and Wright's trichocoronis (RCA GIS Data Downloads 2020).

Suitable soils and/or habitat conditions are not present for (5) five of the NEPSA species including Munz's onion and Hammitt's clay-cress due to lack of suitable clay soils,

many-stemmed dudleya, due to a lack of suitable soils and habitat, spreading navarretia and California Orcutt grass due to a lack of vernal pools. Also, as discussed in detail below, suitable habitat and soils are lacking for Wright's trichocoronis.

Potentially Suitable soil conditions and limited areas of native vegetation were documented onsite for four (4) NEPSA species, San Diego ambrosia, slender horned spineflower, San Miguel savory and Wright's trichocoronis as shown in Table 4, *Sensitive Plant Species with Potential to Occur Onsite*. The potential need for these focused MSHCP sensitive plant surveys are addressed below pursuant to MSHCP Section 6.1.3.

As discussed below, three of the plants determined to have potential for presence on the site occur within streams and associated floodplains. Thus, it is important to note that the segment of Coldwater Canyon Creek which crossed the site until it was developed (during the 1970s) was realigned and channelized with steep banks, eliminating any floodplain functions. The channel bottom exhibit scour and support mostly non-native herbaceous species, while the top of the eastern bank supports disturbed scrub and the top of the western bank supports a windrow of blue gum eucalyptus with no native understory.

San Diego ambrosia – According to the U.S. Fish and Wildlife Service 5-Year Review³ this species is an herbaceous perennial that produces aerial stems from their underground rhizomes in early spring after winter rains, and flower between May and October. This species occurs primarily on upper terraces of rivers and drainages but can also occur in other settings, including disturbed grasslands, which are lacking from the site. The only suitable habitat would be the terraces of Temescal Wash or Coldwater Canyon Creek. Coldwater Canyon and Temescal Wash was thoroughly surveyed during the jurisdictional delineation with all plant species recorded. The survey occurred in August during the peak of the blooming period and this easily identified species was not detected. No additional surveys are needed.

Slender-horned Spineflower – is usually found in drought prone alluvial benches subject to only rare flood events as noted by USFWS in the 2010 5-Year Review of the species.⁴ The habitat that supports most occurrences of this species has generally been categorized as alluvial scrub. This shrub habitat is found on sandy and gravelly soils in sandy wash systems where intermittent, scouring flood events occur. Importantly for this evaluation, USFWS reports that plants are typically found in alluvial fan scrub on benches and terraces away from active channels in areas receiving little surface disturbance from flooding, but subject to sheet or overland flows. The association of the species with older alluvial benches and terraces indicates the need or tolerance of infrequent flood events to maintain suitable habitat conditions. A few occurrences of this species are found on low alluvial benches or braids within active channels.

³ U.S. Fish and Wildlife Service. 2010. *Ambrosia pumila* (San Diego ambrosia) 5-Year Review: Summary and Evaluation

⁴ U.S. Fish and Wildlife Service. 2010. *Dodecahema leptoceras* (slender-horned spineflower) 5-Year Review: Summary and Evaluation

As noted above, Coldwater Canyon is a realigned channel lacking in benches or braids that are typical of the habitat for this species as this drainage consist of a channel with high steep constructed banks that do not contain terraces or benches typical for this species. Therefore, Coldwater Canyon does not exhibit potential for supporting this species.

According to USFWS in the 5-Year Recover Plan, the occurrence of this species in the Temescal Wash was presumed extant as of 2010 although the site was impacted by vandalism in 1989 and freeway construction. This occurrence is approximately five miles upstream of the Project Site and Corona Lake impounds Temescal Wash upstream of the site, substantially reducing potential for dispersal to the segment of Temescal Wash that crosses the corner of the site. Temescal Wash was thoroughly surveyed during the jurisdictional delineation with all plant species recorded. The survey occurred in August during the peak of the blooming period and this easily identified species was not detected. No additional surveys are needed.

Wright's trichocoronis – California Native Plant Society reports that this species occurs in alkaline meadows and seeps; marshes and swamps, riparian forests and vernal pools⁵, while the Jepson Herbarium reports the species from “moist places, drying riverbeds”.⁶ The only documented occurrences of this species in Western Riverside County occur within the San Jacinto River drainage and floodplain, which is exhibits suitable conditions including floodplain areas that exhibit seasonal ponding and drying riverbeds. Coldwater Canyon does not exhibit suitable conditions for this species lack all of the habitat requirements for this species which has no potential to occur.

San Miguel Savory – this species occurs in the Santa Ana Mountains to the southeast of the Project Site, where it occurs primarily on shaded slopes and within canyons in chaparral or oak woodland. The Project Site contains no potential for this species.

Habitat/Suitability Assessment for Other Special-Status Plants

Table 4, *Sensitive Plant Species with Potential to Occur Onsite* also addresses 13 additional species, none of which have potential to occur on the site as set forth in the Table (Glenn Lukos Associates 2021a).

⁵ <http://www.rareplants.cnps.org/detail/1520.html>

⁶ http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=79193

**Table 4.
Sensitive Plant Species with Potential to Occur Onsite.**

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
MSHCP Criteria Area Species		
Coulter's goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>) CRPR 1B.1 MSHCP Covered	Playas, vernal pools, marshes and swamps (coastal salt).	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction with historic mining disturbance on the Site.
Davidson's saltscale (<i>Atriplex serenana</i> var. <i> davidsonii</i>) CRPR 1B.2 MSHCP Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub and alkali sink scrub.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction with historic mining disturbance on the Site.
Little mousetail (<i>Myosurus minimus</i> ssp. <i>apus</i>) CRPR 3.1 MSHCP Covered	Little mousetail is widespread in California. It occurs in alkaline vernal pools, and vernal alkali plains and grasslands, and blooms March to June.	Not expected to occur on site due to a lack of suitable habitat vernal pool or vernal marsh habitat in conjunction with historic mining on the Site.
Parish's brittlescale (<i>Atriplex parishii</i>) CRPR 1B.1 MSHCP Covered	Occurs on alkali or saline flats, alkali meadows, and in or along the margins of vernal pools or playa depressions.	Not expected to occur onsite based on the absence of suitable alkali clay soils, associated habitats and historic disturbed conditions of the Site.
Round-leaved filaree (<i>Erodium macrophyllum</i>) CRPR 1B.2 MSHCP Covered	Open areas in cismontane woodland and valley and foothill grasslands, which are often associated with heavy clay soils below 3,600 feet elevation.	Not expected to occur onsite based on a lack of suitable clay and clay associated substrates, vegetation and historic disturbed conditions of the Project Site.
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>) CRPR 1B.1 MSHCP Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, and disturbed habitats.	Limited potential to occur onsite although not observed during general biological surveys

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
Thread-leaved brodiaea <i>(Brodiaea filifolia)</i> FT/SE CRPR 1B.1 MSHCP Covered	Typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline flats of riparian areas, vernal pools, mesic southern needlegrass grassland, mixed native-annual grassland, and alkali grassland plant communities in association with clay, clay loam, or alkaline silty-clay soils.	Not expected to occur onsite based on a lack of suitable clay and clay associated substrates, vegetation and historic disturbed conditions associated with mining activities on the Site.
MSHCP Narrow Endemic Species		
California Orcutt grass <i>(Orcuttia californica)</i> FE/SE CRPR 1B.1 MSHCP Covered	Vernal pools.	Not expected to occur on site due to the lack of suitable vernal pool habitat
Hammitt's clay-cress <i>(Sibaropsis hammittii)</i> CRPR 1B.2 MSHCP Covered	Occurs within chaparral and grassland habitats in association with clay substrates.	Not expected to occur on site based on a lack of suitable clay and clay associated substrates, vegetation and historic disturbed conditions of the Project Site.
Many-stemmed dudleya <i>(Dudleya multicaulis)</i> CRPR 1B.2 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction with historic mining disturbance on the Site.
Munz's onion <i>(Allium munzii)</i> FE/ST CRPR 1B.1 MSHCP Covered	Restricted to mesic clay soils in western Riverside County, California within southern needlegrass grassland annual grassland, open coastal sage scrub, or occasionally, in cismontane juniper woodlands.	Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction with historic mining disturbance on the Site.
San Diego ambrosia <i>(Ambrosia pumila)</i> FE CRPR 1B.1 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Not expected to occur on site. Study Area is located north of known range for the species and not detected during focused surveys.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
San Miguel savory (<i>Clinopodium chandleri</i> (formerly <i>Satureja chandleri</i>)) CRPR 1B.12 MSHCP Covered	Occurs in chaparral, cismontane woodland, coastal scrub, riparian woodland and valley and foothill grasslands from 120 to 1,075 meters (394 to 3,526 feet).	No potential to occur on site due to lack of suitable habitat.
Slender-horned spineflower (<i>Dodecahema leptoceras</i>) FT CRPR 1B.1 MSHCP Covered	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Not expected to occur due to lack of suitable habitat.
Spreading navarretia (<i>Navarretia fossalis</i>) FT CRPR 1B.1 MSHCP Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected to occur on site due to the lack of suitable vernal pool habitat
Wright's trichocoronis (<i>Trichocoronis wrightii</i> var. <i>wrightii</i>) CRPR 2.1 MSHCP Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected to occur on site due to the lack of suitable vernal pool or seasonal marsh habitat.
Other Sensitive Species Considered		
Brand's phacelia (<i>Phacelia stellaris</i>) CRPR 1B.1 MSHCP Covered	Coastal dunes and coastal sage scrub with sandy soils. Known to occur in open areas of sage scrub associated with the Santa Ana River floodplain.	No potential to occur near due to lack of suitable habitat.
California bedstraw (<i>Galium californicum</i> ssp. <i>primum</i>) CRPR 1B.2 MSHCP Covered	Chaparral, lower montane coniferous forest in granitic, sandy soils. Local occurrence limited to lower edge of pine belt in shaded areas at 1350-1700m elevation.	No potential to occur near due to lack of suitable habitat.
California satintail (<i>Imperata brevifolia</i>) CRPR 2.1	Wet meadows and seeps (often alkali), and riparian scrub/mesic habitats in wet springs, meadows, streamsides, and flood plains.	Not expected to occur due to lack of suitable habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Chaparral sand-verbena (<i>Abronia villosa</i> var. <i>aurita</i>) CRPR 1B.1	Sandy soils in sage-scrub, chaparral.	Not expected to occur due to lack of suitable habitat.
Peninsular spine flower (<i>Chorizanthe leptotheca</i>) CRPR 4.2	Annual herb generally blooming from May to August within alluvial fan, granitic chaparral, coastal scrub and lower montane coniferous forest habitats (CNPS 2020).	Not expected to occur due to lack of suitable habitat.
Coulter's matilija poppy (<i>Romneya coulteri</i>) CRPR 4.2 MSHCP Covered	Perennial rhizomatous herb generally blooming from March to August in chaparral and coastal scrub habitats (CNPS 2020).	Not detected onsite.
Horn's milk-vetch (<i>Astragalus hornii</i> var. <i>hornii</i>) CRPR 1B.1	Meadows and seeps, salty flats, playas/lake margins, alkaline.	No potential to occur near due to lack of suitable habitat.
Long-spined spine flower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>) CRPR 1B MSHCP Covered	Annual herb generally blooming from April to July within chaparral, coastal scrub, meadows and seeps, grassland and vernal pools in association with clay substrates (CNPS 2020).	No potential to occur near due to lack of suitable soils.
Mesa horkelia (<i>Horkelia cuneata</i> ssp. <i>puberula</i>) CRPR 1B.1	Occurs in chaparral, cismontane woodland, and coastal scrub.	No potential to occur near due to lack of suitable habitat.
Palmer's grapplinghook (<i>Harpagonella palmeri</i>) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to May in open grassy areas within chaparral, coastal scrub, grassland habitats in association with lay substrates (CNPS 2020).	No potential to occur near due to lack of suitable soils.
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parryi</i>) CRPR 3.2 MSHCP Covered	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	No potential to occur near due to lack of suitable habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Plummer's mariposa lily (<i>Calochortus plummerae</i>) CRPR 1B.2 MSHCP Covered	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, and valley and foothill grassland.	No potential to occur near due to lack of suitable habitat.
Rayless ragwort (<i>Senecio aphanactis</i>) CRPR 2.2	Drying alkaline flats in coastal sage scrub and cismontane woodland	No potential to occur near due to lack of suitable habitat.
Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>) CRPR 1B.1	Occurs in chaparral and coastal scrub.	No potential to occur near due to lack of suitable habitat.
Salt spring checkerbloom (<i>Sidalcea neomexicana</i>) CRPR 2.2	Found in alkali springs and marshes within creosote bush scrub, chaparral, yellow pine forest, coastal sage scrub and alkali sink.	No potential to occur near due to lack of suitable habitat.
San Bernardino aster (<i>Symphyotrichum defoliatum</i>) CRPR 1B.2	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic)/near ditches, streams springs.	No potential to occur near due to lack of suitable habitat.
Santa Ana River woollystar (<i>Eriastrum densifolium</i> ssp. <i>santorum</i>) FE/SE CRPR 1B.1 MSHCP Covered	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils.	No potential to occur near due to lack of suitable habitat.
Small-flowered microseris (<i>Microseris douglasii</i> var. <i>platycarpa</i>) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to May within cismontane woodland, coastal scrub, grassland and vernal pools in association with clay substrates (CNPS 2020).	No potential to occur near due to lack of suitable soils.
Small-flowered morning-glory (<i>Convolvulus simulans</i>) CRPR 4.2 MSHCP Covered	Annual herb generally blooming from March to July in chaparral, coastal scrub and grassland habitats in association with clay substrates and serpentinite seeps.	No potential to occur near due to lack of suitable soils.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
<p>Status</p> <p>California Native Plant Society (CNPS): California Rare Plant Rank (CRPR) CRPR 1A – plants presumed extinct in California CRPR 1B – plants rare, threatened, or endangered in California, but more common elsewhere CRPR 2A – plants presumed extirpated in California but common elsewhere CRPR 2B – plants rare, threatened, or endangered in California but more common elsewhere CRPR 3 – plants about which we need more information, a review list CRPR 4 – plants of limited distribution, a watch list .1 – Seriously endangered in California .2 – Fairly endangered in California .3 – Not very endangered in California</p> <p>Federal (USFWS) Protection and Classification FE – Federally Endangered FT – Federally Threatened FC – Federal Candidate for Listing</p> <p>State (CDFW) Protection and Classification SE – State Endangered ST – State Threatened</p>		

Source: GLA 2021a, Cadre Environmental 2020.

SENSITIVE WILDLIFE

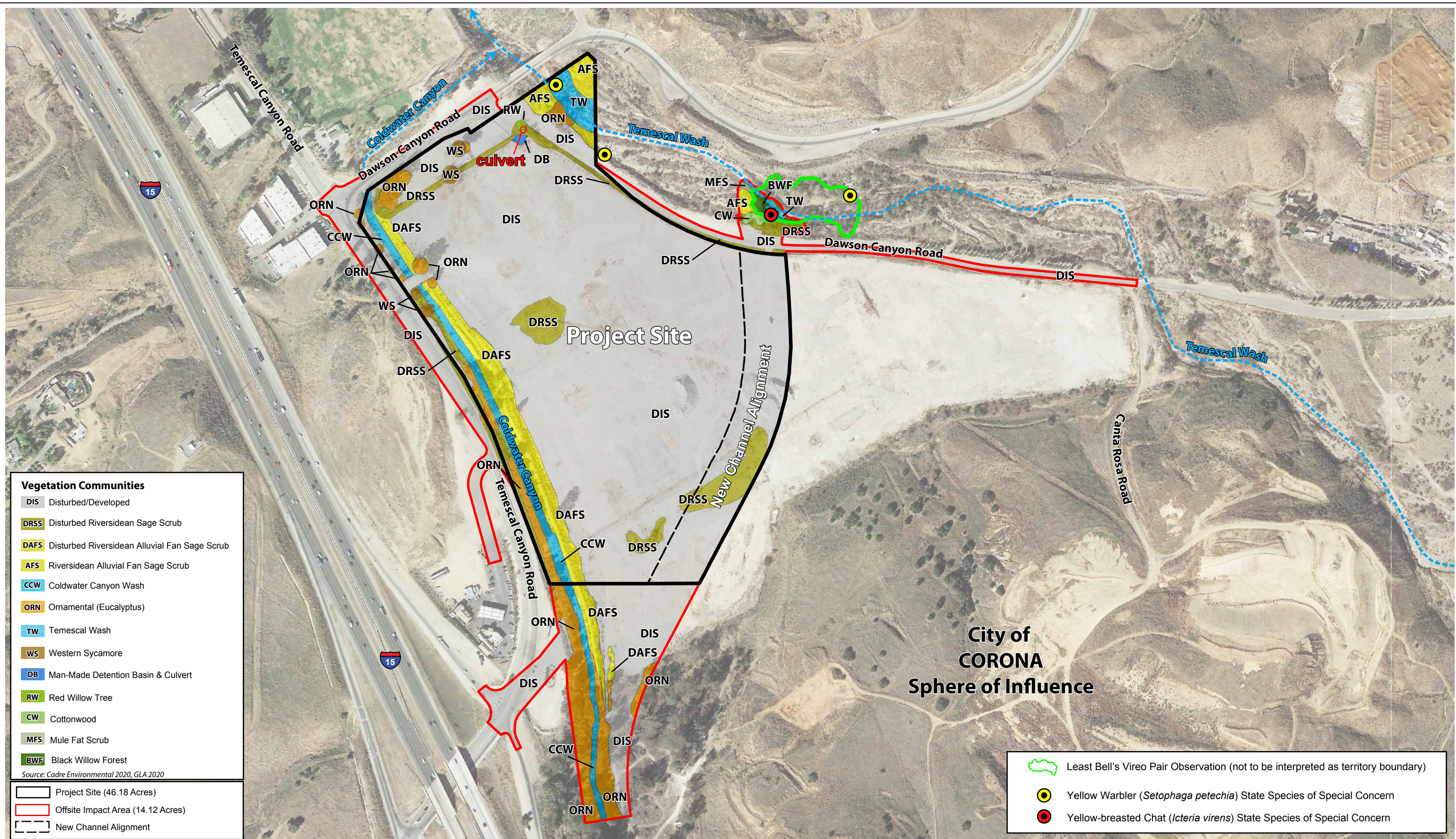
The following discussion is presented in two parts:

- I) MSHCP planning species detected on or adjacent to the Project Site;
- II) MSHCP and sensitive species that can be excluded from occurring within the Project Site or may occur onsite based on the presence of suitable habitat.

I: MSHCP Planning Species Documented on or Adjacent to the Project Site

A pair of Least Bell's vireo (*Vireo bellii pusillus*) FE/SE was detected within the Temescal Canyon Wash offsite impact areas during USFWS protocol surveys conducted during the spring of 2021 as shown in Figure 11, *Sensitive Species Observation Map*.

Incidental MSHCP covered species documented during the habitat assessment and/or focused survey efforts include, yellow warbler (*Setophaga petechia*) CDFW SSC, and yellow-breasted chat (*Icteria virens*) CDFW SSC, as shown in Figure 11, *Sensitive Species Observation Map*. As previously stated, the MSHCP has determined that this sensitive species documented within Project Site has been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004).



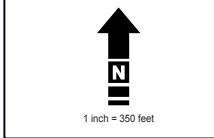
- Vegetation Communities**
- DIS Disturbed/Developed
 - DRSS Disturbed Riverside Sage Scrub
 - DAFS Disturbed Riverside Alluvial Fan Sage Scrub
 - AFS Riverside Alluvial Fan Sage Scrub
 - CCW Coldwater Canyon Wash
 - ORN Ornamental (Eucalyptus)
 - TW Temescal Wash
 - WS Western Sycamore
 - DB Man-Made Detention Basin & Culvert
 - RW Red Willow Tree
 - CW Cottonwood
 - MFS Mule Fat Scrub
 - BWF Black Willow Forest
- Source: Cadre Environmental 2020, GLA 2020

- Project Site (46.18 Acres)
- Offsite Impact Area (14.12 Acres)
- New Channel Alignment

- Least Bell's Vireo Pair Observation (not to be interpreted as territory boundary)
- Yellow Warbler (*Setophaga petechia*) State Species of Special Concern
- Yellow-breasted Chat (*Icteria virens*) State Species of Special Concern

Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 11 - Sensitive Species Observation Map
 Biological Resources Technical Report
 Temescal Valley Commerce Project Site



II. MSHCP and sensitive species that can be excluded from occurring within the Project Site or may occur onsite based on the presence of suitable habitat

Sensitive species that can be excluded from occurring onsite or known to occur within the region with potential to occur onsite are presented in Table 5, *Sensitive Wildlife Species with Potential to Occur Onsite*.

**Table 5.
Sensitive Wildlife Species with Potential to Occur Onsite.**

Species Name (Scientific Name) Status	Habitat Description	Comments
INVERTEBRATES		
<p>Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)</p> <p>FT MSHCP Covered Species</p>	<p>Vernal pool fairy shrimp is restricted to seasonal vernal pools (Eng, Belk, and Eriksen 1990; USFWS 1994). The vernal pool fairy shrimp prefers cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived (Eriksen and Belk 1999, MSHCP 2004).</p>	<p>No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common versatile fairy shrimp (<i>Branchinecta lindahli</i>), the basin is not expected to be occupied by the vernal pool fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The Project Site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species.</p>

Species Name <i>(Scientific Name)</i>	Habitat Description	Comments
Status		
Riverside fairy shrimp <i>(Streptocephalus woottoni)</i> FE MSHCP Covered Species	<p><i>S. woottoni</i> is restricted to deep seasonal vernal pools/ephemeral ponds, and stock ponds and other human modified depressions (Eng, Belk, and Eriksen 1990, USFWS 1993, USFWS 2001). Riverside fairy shrimp prefer warm-water pools that have low to moderate dissolved solids, are less predictable, and remained filled for extended periods of time (Eriksen and Belk 1999, MSHCP 2004).</p>	<p>No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common versatile fairy shrimp, the basin is not expected to be occupied by the Riverside fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The Project Site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species.</p>
AMPHIBIANS		
Western spadefoot <i>(Spea hammondi)</i> SSC MSHCP Covered Species	<p>The western spadefoot population is patchily but widely distributed throughout the Riverside Lowlands and San Jacinto Foothills Bioregions. Habitat for this species includes suitable breeding habitat below 1500 meters (i.e., vernal pools or other standing water is free of exotic species) secondary habitats including adjacent chaparral, sage scrub, grassland, and alluvial scrub habitats. (MSHCP 2004)</p>	<p>Potential to occur within Temescal Wash and adjacent alluvial fan sage scrub habitat types.</p>

Species Name (Scientific Name)	Habitat Description	Comments
Status		
REPTILES		
Orange-throated whiptail <i>(Aspidooscelis hyperythra)</i> CWL MSHCP Covered Species	The orange-throated whiptail occurs primarily in a wide variety of habitats but is more closely tied to coastal sage scrub and chaparral habitats with less than 90 percent vegetative cover.	Potential to occur onsite within and adjacent to the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Coastal western whiptail <i>(Aspidooscelis tigris stejnegeri)</i> SSC MSHCP Covered Species	The coastal western whiptail occurs in a wide variety of habitats including coastal sage scrub, desert scrub, Riversidean alluvial fan scrub, woodlands, grasslands, playas, and respective ecotones between these habitats (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Red-diamond rattlesnake <i>(Crotalus ruber)</i> SSC MSHCP Covered Species	The red-diamond rattlesnake is often found in areas with dense vegetation especially chaparral and sage scrub up to 1,520 meters in elevation (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Western pond turtle <i>(Emys marmorata)</i> SSC MSHCP Covered Species	The western pond turtle inhabits slow moving permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons (Rathbun <i>et al.</i> , 1992; Holland, 1994). Pools are the preferred habitat within streams (Bury, 1972, MSHCP 2004).	No potential to occur onsite based on a lack of open water.
Coast horned lizard <i>(Phrynosoma blainvillii)</i> SSC MSHCP Covered Species	The horned lizard occurs primarily in scrub, chaparral, and grassland habitats. The species is common in most areas of the Plan Area except where adjacent to urban situations (MSHCP 2004).	Potential to occur onsite within and adjacent to the Riversidean sage scrub and alluvial fan sage scrub habitat types.

Species Name (Scientific Name) Status	Habitat Description	Comments
BIRDS		
Cooper's hawk (<i>Accipiter cooperii</i>) SSC MSHCP Covered Species	Cooper's hawk is most commonly found within or adjacent to riparian/oak forest and woodland habitats. This uncommon resident of California increases in numbers during winter migration.	Potential nesting habitat is present onsite with mature Eucalyptus woodland (Ornamental) located within Coldwater Canyon.
Southern California rufous-crowned sparrow (<i>Aimophila ruficeps canescens</i>) CWL MSHCP Covered Species	Southern California rufous-crowned sparrow is a non-migratory bird species that primarily occurs within sage scrub and grassland habitats and to a lesser extent chaparral sub-associations (Unitt 2004). This species generally breeds on the ground within grassland and scrub communities in the western and central regions of California.	Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Bell's sage sparrow (<i>Artemisospiza belli belli</i>) CWL MSHCP Covered Species	Bell's sage sparrow is an uncommon to fairly common but localized resident breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains (MSHCP 2004).	Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Burrowing owl (<i>Athene cunicularia</i>) SSC MSHCP Covered Species	The burrowing owl uses predominantly open land, including grassland, agriculture (e.g., dry-land farming and grazing areas), playa, and sparse coastal sage scrub and desert scrub habitats (Garrett and Dunn 1981). Some breeding burrowing owls are year-round residents and additional individuals from the north may winter throughout the MSHCP Area Plan (MSHCP 2004).	No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Project Site during the 2019 survey efforts. <u>Not detected onsite during focused surveys conducted during the spring of 2019 or 2021.</u>

Species Name <i>(Scientific Name)</i>	Habitat Description	Comments
Status Western yellow-billed cuckoo <i>(Coccyzus americanus occidentalis)</i> FT/SE MSHCP Covered Species	Although the preferred habitat, riparian scrub and forest, is well distributed at scattered locations within the Plan Area in the Riverside Lowland Bioregions, the western yellow-billed cuckoo apparently no longer inhabits much of this habitat (MSHCP 2004).	No potential to occur onsite based on a lack of riparian scrub, forest or woodland habitats within or adjacent to the Project Site.
White-tailed kite <i>(Elanus leucurus)</i> SFP MSHCP Covered Species	The white-tailed kite is found in riparian, oak woodlands adjacent to large open spaces including grasslands, wetlands, savannahs and agricultural fields. This non-migratory bird species occurs throughout the lower elevations of California and commonly nests in coast live oaks (Unitt 2004).	May occasionally forage onsite within the open disturbed habitats.
Southwestern willow flycatcher <i>(Empidonax traillii extimus)</i> FE/SE MSHCP Covered Species	The southwestern willow flycatcher is narrowly distributed at few locations within the Plan Area. Although the preferred habitat, riparian woodland and select other forests, is well distributed within all bioregions and spread over the entire Plan Area, few current locations for the willow flycatcher have been documented (MSHCP 2004).	No potential to occur onsite based on a lack of riparian scrub, forest or woodland habitats within or adjacent to the Project Site. No USFW GIS Database records of species within or adjacent to Project Site (USFWS 2020).
California horned lark <i>(Eremophila alpestris actia)</i> SWL	Habitat for the California horned lark includes agriculture (field croplands), grassland, cismontane alkali marsh, playa and vernal pool habitat, Riversidean alluvial fan sage scrub, and coastal sage scrub (Garrett and Dunn 1988). It has been recorded in chaparral and riparian	May occasionally forage onsite within the open disturbed habitats.

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
	habitat - however these are not typical habitats used by the species.	
American peregrine falcon <i>(Falco peregrinus anatum)</i> SFP MSHCP Covered Species	Throughout the species' range, peregrine falcons are found in a large variety of open habitats, including tundra, marshes, seacoasts, savannahs and high mountains (AOU 1998, MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Yellow-breasted chat <i>(Icteria virens)</i> SSC MSHCP Covered Species	The yellow-breasted chat is associated with riparian woodland and riparian scrub habitats. (MSHCP 2004)	Present – Detected within Temescal Canyon Wash.
Loggerhead shrike <i>(Lanius ludovicianus)</i> SSC MSHCP Covered Species	Loggerhead shrike prefer open ground for foraging and thick trees and shrubs including sage scrub, chaparral, and desert scrub habitats for nesting.	Potential to forage and nest onsite within the open disturbed, Riversidean sage scrub and alluvial fan sage scrub habitat types.
Black-crowned night heron <i>(Nycticorax nycticorax)</i> MSHCP Covered Species	Black-crowned night-herons require marshes, ponds, reservoirs, and estuaries for foraging and also occur along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and, rarely, in kelp beds in marine subtidal habitats (MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Osprey <i>(Pandion haliaetus)</i> CWL MSHCP Covered Species	The osprey is restricted to large water bodies supporting fish with surrounding or nearby forest Habitats, often ponderosa pine or mixed conifer (MSHCP 2004).	No potential to occur onsite based on a lack of open water within or adjacent to the Project Site.
Double-crested cormorant <i>(Phalacrocorax auritus)</i> CWL MSHCP Covered Species	The double-crested cormorant is a common inhabitant of seacoasts and inland waters, rarely observed out of sight of land (MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
Downy woodpecker <i>(Picoides pubescens)</i>	Potential habitat for the downy woodpecker includes riparian scrub, woodland, forest, and oak woodland habitat in all Bioregions within the Plan Area (MSHCP 2004).	No potential to occur onsite based on a lack of suitable habitat.
White-faced ibis <i>(Plegadis chihi)</i> CWL MSHCP Covered Species	The white-faced ibis is sparsely distributed throughout the Riverside Lowlands Bioregions of the MSHCP Plan Area within its suitable habitat. It occurs at some of the areas of freshwater marsh habitat but is only documented for breeding at two locations: Prado Basin and Mystic Lake/San Jacinto Wildlife Area (MSHCP 2004).	No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Coastal California gnatcatcher <i>(Polioptila californica californica)</i> FT/SSC MSHCP Covered Species	The coastal California gnatcatcher is a non-migratory bird species that primarily occurs within sage scrub habitats in coastal southern California dominated by California sagebrush (<i>Artemisia californica</i>), and California buckwheat (<i>Eriogonum fasciculatum</i>).	Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Yellow warbler <i>(Setophaga petechia)</i> SSC MSHCP Covered Species	Habitat characteristics of the yellow warbler are well known to include riparian scrub and forest and woodland. (MSHCP 2004)	Detected onsite within Temescal Wash.
Tree swallow <i>(Tachycineta bicolor)</i> MSHCP Covered Species	Suitable habitat is provided for the tree swallow by the riparian forest and woodland up through the lodgepole pine belt for breeding habitats. It frequents valley foothill and montane riparian habitats below 2,700 meters (9,000 feet) for breeding within its range (MSHCP 2004).	No potential to occur onsite based on a lack of riparian scrub, forest or woodland habitats within the Project Site.

Species Name <i>(Scientific Name)</i>	Habitat Description	Comments
Status Least Bell's vireo <i>(Vireo bellii pusillus)</i> FE/SE MSHCP Covered Species	Least Bell's vireo resides in riparian habitats with a well-defined understory including southern willow scrub, mule fat, and riparian forest/woodland habitats.	Present – Pair detected within Temescal Wash offsite impact area during 2021 USFWS focused surveys. The least Bell's vireo was also documented within 500 feet of the Project Site in 2005 within Temescal Wash (USFWS 2020).
MAMMALS		
Northwestern San Diego pocket mouse <i>(Chaetodipus fallax fallax)</i> SSC MSHCP Covered Species	The northwestern San Diego pocket mouse occurs throughout the Plan Area in coastal sage scrub (including Diegan and Riversidean upland sage scrubs and alluvial fan sage scrub), sage scrub/grassland ecotones, chaparral at all elevations up to 6,000 feet (MSHCP 2004).	Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Dulzura kangaroo rat <i>(Dipodomys simulans)</i> MSHCP Covered Species	The Dulzura kangaroo rat occurs throughout the Plan Area in coastal sage scrub (including Diegan and Riversidean upland sage scrubs and alluvial fan sage scrub), sage scrub/grassland ecotones, chaparral, and desert scrubs at all elevations up to 2,600 feet. (MSHCP 2004)	This species is expected to occur onsite within the Temescal Canyon Wash floodprone area.
Stephens' kangaroo rat <i>(Dipodomys stephensi)</i> FE/ST MSHCP Covered Species	The Stephens' kangaroo rat is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer (MSHCP 2004).	Not expected to occur onsite based on a lack of suitable habitat.
Western mastiff bat <i>(Eumops perotis californicus)</i> SSC	Western mastiff bats are found in a variety of biotic environments from low desert scrub to chaparral, oak woodland and ponderosa pine.	Not expected to occur onsite based on a lack of suitable habitat.

Species Name <i>(Scientific Name)</i>	Habitat Description	Comments
Status Yellow bat <i>(Lasiurus xanthinus)</i> SSC	Although formerly associated only with the desert palm oasis in California (Bond, 1970), yellow bats appear to be expanding their range to the coast and northward, possibly as a result of the planting of ornamental palms.	Not expected to occur onsite based on a lack of suitable habitat.
San Diego black-tailed jackrabbit <i>(Lepus californicus bennettii)</i> SSC	The San Diego black-tailed jackrabbit in open habitats, primarily including grasslands, sage scrub, alluvial fan sage scrub, and Great Basin sage scrub.	Expected to occur onsite within the open disturbed, Riversidean sage scrub and alluvial fan sage scrub vegetations.
Bobcat <i>(Lynx rufus)</i> MSHCP Covered Species	The bobcat requires large expanses of relatively undisturbed brushy and rocky habitats near springs or other perennial water sources.	Expected to occur within and adjacent to Temescal Canyon Wash.
Pocketed free-tailed bat <i>(Nyctinomops femorosaccus)</i> SSC MSHCP Covered Species	Usually associated with rugged canyons, high cliffs, and rock outcroppings. Roosts in rock crevices and caves during the day; may also roost in buildings or under roof tiles (Ziener et al. 1988-1990).	Not expected to occur onsite based on a lack of suitable habitat.
Mountain lion <i>(Puma concolor)</i> MSHCP Covered Species	Mountain lions use rocky areas, cliffs, and ledges that provide cover within open woodlands and chaparral, as well as riparian areas that provide protective habitat connections for movement between fragmented core habitats. (MSHCP 2004)	Expected to occur within and adjacent to Temescal Canyon Wash.
American badger <i>(Taxidea taxus)</i> SSC	The American badger prefers friable soils in open grassland and scrub habitat in southern California.	No burrows documented onsite.

Species Name (Scientific Name)	Habitat Description	Comments
Status		
<p>Federal (USFWS) Protection and Classification FE – Federally Endangered FT – Federally Threatened FC – Federal Candidate for Listing</p> <p>State (CDFW) Protection and Classification SE – State Endangered ST – State Threatened SSC – State Species of Special Concern CWL – California Watch List SPF – State Fully Protected</p>		

Sources: Cadre Environmental 2020.

Critical habitat designations by the USFWS were researched to determine if any of the Project Site is located within USFWS critical habitat. The Project Site does not occur within a designated critical habitat for federally endangered or threatened species.

REGIONAL CONNECTIVITY/WILDLIFE MOVEMENT CORRIDORS

Overview

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

- (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
- (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and

- (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss 1983; Fahrig and Merriam 1985; Simberloff and Cox 1987; Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as “wildlife corridor”, “travel route”, “habitat linkage”, and “wildlife crossing” to refer to areas in which wildlife moves from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

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

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

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

Wildlife Movement within Project Site

The reaches of Temescal Wash and Coldwater Canyon located within and adjacent to the Project Site represent regional travel routes and movement corridors. The Project Site is also located within Proposed Extension of Existing Core 2 (Lake Mathews/Estelle Mountain Extension). However, the majority of the Project Site is heavily disturbed due to a historic operation of a concrete pipe manufacturing facility and remains bordered by existing fencing. Any proposed development within the central region of the Project Site will be required to comply with all MSHCP urban/wildlands interface guidelines presented in Section 6.1.4 and the fuels management guidelines presented in Section 6.4.

LOCAL

**Western Riverside County Multiple Species Habitat Conservation Plan
Compliance Analysis**

The proposed Project Site is located completely within the MSHCP, which is a comprehensive multi-jurisdictional effort that includes western Riverside County and eighteen (18) cities including the County of Riverside. Rather than addressing sensitive species on an individual basis, the MSHCP focuses on conservation of 146 species, including those listed at the federal and state levels and those that could become listed in the future. The MSHCP proposed a reserve system of approximate 500,000 acres, of which 347,000 acres are currently within public ownership and 153,000 acres will need to be assembled from lands currently in private ownership. The MSHCP allows the County and other permittees to issue take permits for listed species so that applicants do not need to receive endangered species incidental take authorization from the USFWS and CDFW.

On June 7th, 2003, the County Board of Supervisors adopted the MSHCP, certified the Environmental Impact Report/Environmental Impact Statement, and authorized the Chairman to sign the Implementing Agreement with the respective wildlife agencies. The Incidental Take Permit was issued by the wildlife agencies on June 22nd, 2004. The County of Riverside is a Permittee under the MSHCP.

MSHCP Reserve Design & Criteria Area Objectives

Regions of the MSHCP have been organized into Area Plans that generally coincide with logical political boundaries, including city limits or long-standing unincorporated communities.

The Temescal Valley Commerce Center project is located within the Temescal Canyon Area Plan. The Temescal Canyon Area Plan has a target conservation acreage of 29,555 – 31,870 acres; it is composed of approximately 26,070 acres of existing Public/Quasi-Public Lands and 3,485 – 5,800 acres of Additional Reserve Lands.

Temescal Wash Area Plan – Cell Group F

The Project Site is located within the Western Riverside County MSHCP Temescal Canyon Plan Area, Subunit 3 – Temescal Wash West and Proposed Extension of Existing Core 2. The Project Site is located completely within MSHCP Criteria Areas 3035 and 3036, Cell Group F. As stated in the MSHCP:

“Conservation within this Cell Group F will contribute to assembly of Proposed Extension of Existing Core 2. Conservation within this Cell Group will focus on coastal sage scrub and Riversidean alluvial fan sage scrub in a mosaic of upland habitat, and water and riparian scrub, woodland, forest habitat. Areas conserved within this Cell Group will be connected to a variety of uplands and wetlands proposed for conservation in Cell Group E”

to the north, Cell Group G to the south, and to coastal sage scrub habitat proposed for conservation in Cells #2937 and #2935 in the Lake Matthews Area Plan to the north. Conservation within this Cell Group will range from 65%-75% of the Cell Group focusing on the central and eastern portions of the Cell Group.” (MSHCP 2004)

The proposed action would result in 53.72-acres of permanent and 0.23-acre of temporary impacts (53.95-acres) within Cell Group F primarily to disturbed habitats. As shown in Figure 12, *MSHCP Reserve Assembly Analysis Map*, the proposed project would not conflict with the reserve design for Cell Group F. Specifically, a total of 518 acres of existing (RCA conserved land) and potential conservation lands meeting the MSHCP reserve assembly guidelines are located within Cell Group F totaling 66% (lower conservation threshold). As noted in the MSHCP, the proposed reserve design focuses on the central and eastern regions of the Cell Group including Temescal Wash respective of contributing to the assembly of Proposed Extension of Existing Core 2. Specifically, the Project Site is located in the western region of the Cell Group (where conservation is not identified) and permanent impacts will occur south of Temescal Canyon Wash. As stated in the MSHCP:

“Proposed Extension of Existing Core 2 (Lake Mathews/Estelle Mountain Extension) consists of private lands located in the western region of the Plan Area. This extension is contiguous with Existing Core C (Lake Mathews/Estelle Mountain) along the length of its eastern border and serves to extend the Habitat in the Lake Mathews/Estelle Mountain area and smooth out edges along the border of this Core. Proposed Extension of Existing Core 2 is also connected to Proposed Constrained Linkage 4 (North Temescal Wash) in the north; and Proposed Linkage 1 and Proposed Constrained Linkages 3, 5 (Horsethief Canyon), and 6 (Temescal Wash south) in the south. The extension provides Habitat for species as listed in the table below, and also provides for movement of species. The Lake Mathews/Estelle Mountain Extension supports populations of coastal California gnatcatcher; thus high quality, connected Habitat must be maintained in this area which is surrounded by city (Corona) and community Development planned land uses. In addition, the proposed Hemet to Corona/Lake Elsinore CETAP Corridor Alternative 1B intersects the extension and may contribute to Edge Effects, if chosen. Guidelines Pertaining to Urban/Wildlands Interface for the management of edge factors such as lighting, urban runoff, toxics, and domestic predators are presented in Section 6.1 of this document.” (MSHCP 2004)

As previously stated, and noted in the MSHCP, the proposed reserve design focuses on the central and eastern regions of the Cell Group including Temescal Wash respective of contributing to the assembly of Proposed Extension of Existing Core 2. Specifically, the Project Site is located in the western edge of Proposed Extension of Existing Core 2 and western region of Cell Group F (where conservation is not identified) and permanent impacts will occur south of Temescal Canyon Wash. Following implementation of the UWIG and BMP's the proposed action would be Consistent with MSHCP goals and objectives for Proposed Extension of Existing Core 2.

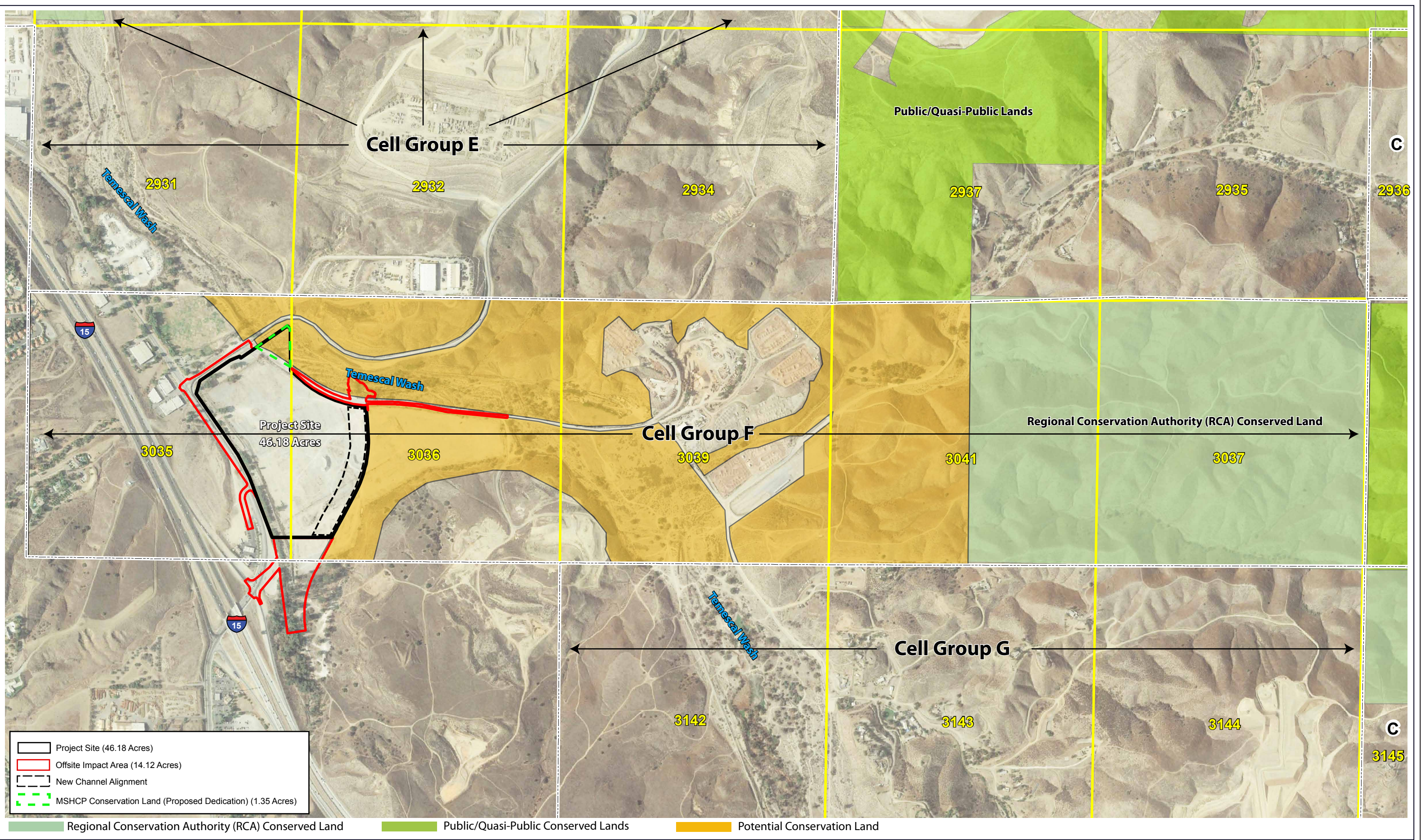


Figure 12 - MSHCP Reserve Assembly Analysis Map
 Biological Resources Technical Report
 Temescal Valley Commerce Project Site

The proposed action was reviewed for consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) by the following agencies:

- Riverside County Environmental Programs Division – HANS 190024 (Oct 2020)
- All 1.35 acres of the Project Site designated as “Proposed Conservation” in HANS 190024 and located within Temescal Wash will be dedicated as conservation land.

MSHCP Sensitive Species Surveys

The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including Munz’s onion, San Diego ambrosia, multi-stemmed dudleya, spreading navarretia, slender-horned spineflower, San Miguel savory, Hammitt’s clay-cress, California Orcutt grass, and Wright’s trichocoronis (RCA GIS Data Downloads 2020). No suitable habitat was documented or will be impacted onsite for MSHCP narrow endemic plants species as outlined in Table 3, Sensitive Plant Species with Potential to Occur Onsite (Glenn Lukos Associates 2020b). The project is consistent with MSHCP Section 6.1.3

The Project Site occurs completely within an MSHCP predetermined Survey Area for seven (7) criteria area plant species: Coulter’s goldfields, Davidson’s saltscale, little mousetail, Parish’s brittlescale, round-leaved filaree, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2020). No suitable soils were documented onsite for MSHCP criteria area plants as outlined in Table 3, Sensitive Plant Species with Potential to Occur Onsite (Glenn Lukos Associates 2020b). The project is consistent with MSHCP Section 6.3.2.

The Project Site is not located within an MSHCP Amphibian or Mammal Species Survey Area; therefore, no surveys are required (RCA GIS Data Downloads 2020). The project is consistent with MSHCP Section 6.3.2.

The Project Site occurs partially within a predetermined Survey Area for the burrowing owl. Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were documented adjacent to the property including foraging habitat documented throughout the Project Site. Based on the presence of suitable habitat, focused MSHCP burrowing owl surveys were conducted during the spring of 2019 and 2021. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within the Project Site boundary during the focused survey effort. Regardless, at a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP. If burrowing owls are detected onsite during the 30-day preconstruction survey, a burrowing owl relocation plan will be developed for the passive/active translocation of individuals as directed by the RCA and wildlife agencies. The project is consistent with MSHCP Section 6.3.2.

MSHCP Riparian, Riverine, Vernal Pool Resources (Section 6.1.2)

Regulated activities within inland streams, wetlands and riparian areas in Western Riverside County California fall under the jurisdiction of the MSHCP. The MSHCP

requires, among other things, assessments for riparian/riverine and vernal pool resources. As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas, and vernal pools are required, as currently mandated by CEQA, using available information augmented by project-specific mapping provided to and reviewed by the permittee's biologist(s). Riparian/riverine areas and vernal pools are defined for this section as follows in accordance with Section 6.1.2, Vol. I, of the Final MSHCP Plan:

“Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.” (MSHCP 2004)

It is assumed the first part of the definition defines riparian habitat, and the second part defines riverine areas. Vernal pools are defined as:

“...seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season”. (MSHCP 2004)

No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common versatile fairy shrimp, the basin is not expected to be occupied by the Riverside fairy shrimp or vernal pool fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The project site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species.

No suitable habitat (riparian forest/woodlands) for the southwestern willow flycatcher or western yellow-billed cuckoo was detected within or adjacent to the Project Site. Suitable habitat for the least Bell's vireo (*Vireo bellii pusillus*), was documented within and adjacent to the northern Project Site boundary (Temescal Wash). Focused USFWS protocol surveys were conducted during the spring of 2019 and 2021.

A pair of least Bell's vireo were detected within the offsite impact area (Temescal Wash) during the 2021 focused survey effort as shown in Figure 11, *Sensitive Species Observation Map*.

A total of 0.27-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (black willow, cottonwood, and mule fat scrub) will occur within the

Temescal Wash offsite area. As outlined below, the MSHCP identifies four (4) objectives (presented as *italics/underlined*) for the protection of least Bell's vireo habitat located within Temescal Wash, followed by an analysis of MSHCP project consistency.

1. "Include within the MSHCP Conservation Area at least 9,430 acres of suitable habitat" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash.
2. "Include within the MSHCP Conservation Area at least 8 core areas and interconnecting linkages" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash. The reach of Temescal Wash where the reestablishment will occur represents potential conservation land.
3. "Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important to the least Bell's vireo. If survey results are positive, 90% of the occupied portions of the property that provide for long-term conservation value shall be conserved. This will involve including 100 meters of undeveloped landscape adjacent to the habitat conserved" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of occupied habitat following implementation of all proposed mitigation measures (0.54-acre of riparian reestablishment) would not adversely impact conservation of core areas of linkages for the species. All MSHCP Urban/Wildlands Interface Guidelines measures will be implemented to ensure the species is not indirectly impacted by the proposed development and following proposed restoration activities within the temporary impact area.
4. "Within the MSHCP Conservation Area, maintain (once every 3 years) the continued use of, and successful reproduction at 75% percent of known vireo occupied habitat (including any nesting locations identified in the MSHCP Conservation Area in the future)" (MSHCP 2004). Based on recent as well as historic observations of least Bell's vireo within Temescal Wash, the species is expected to breed within the permanent and temporary offsite impact area following completion of reestablishment measures which meet the minimum success criteria.

In addition to implementing all four (4) least Bell's vireo objectives listed above, initial vegetation clearing of occupied or potential least Bell's vireo habitat will occur outside of the nesting season (March 15th to September 15th). Potential indirect impacts to suitable least Bell's vireo habitat within Temescal Wash during and following completion of construction and riparian reestablishment will be avoided by implementing all MSHCP

Urban/Wildlands Interface Guidelines and Best Management Practices (BMP) including a commitment to conduct noise monitoring during construction activities in order to ensure noise levels do not exceed 60dB within 300 feet of least Bell's vireo habitat during the nesting period.

The project is consistent with MSHCP Section 6.1.2.

As noted in Table 3, CDFW/MSHCP *Jurisdictional Resources*, and shown in Figure 10, *Jurisdictional Resources Map*, a total of 4.18 acres of MSHCP Section 6.1.2 riparian and riverine resources were documented onsite (Glenn Lukos Associates 2020a). An MSHCP Determination of Biological Equivalent or Superior Preservation (DBESP) will be required.

Rough-Step Unit 7 - A grading/clearance permit was issued for this property in 1989 (LU/APP/Pmt. No. 10900) prior to the 1994 vegetation mapping or 2004 adoption of the Western Riverside County MSHCP. With the exception of Riversidean alluvial fan sage scrub (RAFSS) located within Temescal Wash, the 7.70-acre of RAFSS mapped onsite in 1994 is disturbed or developed (Temescal Canyon and Dawson Canyon Roads). The project also includes the dedication of a 1.35-acre reach of Temescal Canyon Wash within which 1.18-acre is RAFSS. All offsite permanent (0.05-acre) and temporary (0.08-acre) impacts to RAFSS (0.13-acre total) within Temescal Wash as a result of the proposed realignment of Coldwater Canyon will be mitigated at a ratio of 3:1 (0.39-acre) through the reestablishment of RAFSS in the temporary offsite impact area as well as disturbed habitats within or adjacent to the 1.35-acre land dedication within Temescal Wash.

MSHCP Urban/Wildlands Interface Guidelines

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area. The Project Site is not currently located adjacent to an existing MSHCP Conservation Area. However, final reserve design may result in conserved lands being established both north and east of the Project Site. Therefore, as addressed in the following report all proposed Urban/Wildlands Interface Guidelines and Best Management Practices (BMP) will be implemented. The project is consistent with MSHCP Section 6.1.4.

MSHCP Fuels Management Guidelines

The fuels management guidelines presented in Section 6.4 of the MSHCP are intended to address brush management activities around new development within or adjacent to MSHCP Conservation Areas. The Project Site is not currently located adjacent to an existing MSHCP Conservation Area. However, final reserve design may result in conserved lands being established both north and east of the Project Site. Therefore, as addressed in the following report all fuels management guidelines will be implemented.

No fuel modification zones or weed abatement measures are required and therefore would not result in direct impacts to the proposed MSHCP Conservation Areas.

The project is consistent with MSHCP Section 6.4.

County of Riverside Protected Trees

The following regulations apply to tree removal within Riverside County.

- Riverside County Ordinance No. 499.
- Riverside County Ordinance No. 559.
- The Riverside County Oak Tree Management Guidelines address the treatment of oak woodlands and their preservation.

No trees will be removed within the County of Riverside right-of-way and the Project Site is located below 5,000 feet in elevation. No oak species occur onsite and the removal of primarily Eucalyptus trees would not conflict with any County of Riverside protected tree ordinance or oak tree management guidelines.

County of Riverside General Plan Area Plan Volume 1, Temescal Canyon Area Plan, Temescal Wash Policy Area

As outlined below, the County of Riverside General Plan, Area Plan Volume 1, Temescal Canyon Area Plan policies have been incorporated into the project design and mitigation approach.

The project is located partially within the Serrano and Temescal Wash Policy Areas. As stated by the County of Riverside:

“The site designated Light Industrial and Community Center east of Interstate 15 near its intersection with Temescal Canyon Road will serve as a Job Center for area residents. Its location adjacent to Interstate 15, proximity to several residential neighborhoods, as well as its setting in the foothills of the Gavilan Hills, makes this an attractive site for employment and supporting uses.” (County of Riverside 2015, Serrano Policy Area)

As stated by the County of Riverside:

“The Temescal Wash, extending 28 miles from Lake Elsinore to the Santa Ana River, is the principal drainage course within the Temescal Canyon. The Wash also serves as an important component of the Western Riverside County Multiple Species Habitat Conservation Plan and has the potential for providing recreational amenities to the Temescal Canyon. The preservation and enhancement of this feature is an important component of the Temescal Canyon Area Plan land use plan. This policy area is coterminous with boundaries of the 100-year flood zone for the Wash, and spans the El Sobrante Landfill Policy Area, the East Temescal Hillside Policy Area, and the Serrano Policy Area” (County of Riverside 2015, Temescal Wash Policy Area)

TCAP 6.1 Protect the multipurpose open space attributes of the Temescal Wash through adherence to policies in the Flood and Inundation Hazards section of the Safety Element, the Floodplain and Riparian Area Management and Wetland sections of the Multipurpose Open Space Element, and the Open Space, Habitat and Natural Resource Preservation section of the Land Use Element in the General Plan.

The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of **(BIO-MM6)**. The proposed project would not conflict with Policy 6.1.

TCAP 6.2 Encourage the maintenance of Temescal Wash in its natural state, with its ultimate use for recreational and open space purposes such as trails, habitat preservation, and groundwater recharge.

The Project will require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site where it will naturally discharge into Temescal Wash. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of **(BIO-MM6)**. The proposed project would not conflict with Policy 6.2.

TCAP 17.1 Protect viable oak woodlands through adherence to the Oak Tree Management Guidelines adopted by the County of Riverside.

The proposed project will not directly or indirectly impact oak species. The proposed project would not conflict with Policy 17.1.

TCAP 19.1 Protect sensitive biological resources in the Temescal Canyon Area Plan through adherence to policies found in the Multiple Species Habitat Conservation Plans, Environmentally Sensitive Lands, Wetlands, and Floodplain and Riparian Area Management Sections General Plan Multipurpose Open Space Element.

The proposed project will be processed through an MSHCP Joint Project Review (JPR) with the Regional Conservation Authority (RCA) and wildlife agencies to ensure the project is in compliance with all MSHCP species and reserve design and assembly requirements. The JPR will also require the development, review and approval of an MSHCP consistency analysis and DBESP. The proposed project would not conflict with Policy 19.1.

TCAP 19.2 Conserve existing wetlands and wetland functions and values in Temescal Wash, Prado Basin and the Santa Ana River with a focus on conservation of existing riparian, woodland, coastal sage scrub, alluvial

fan scrub and open water habitats. An objective of no net loss of wetland functions and values associated with Prado Basin and Temescal Wash is identified for this area.

The Project will require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site where it will naturally discharge into Temescal Wash. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of (**BIO-MM6**). The proposed project would not conflict with Policy 19.2.

TCAP 19.3 Conserve existing known populations of least Bell's vireo and southwestern willow flycatcher within the Temescal Canyon Area Plan including locations at Prado Basin, Santa Ana River, and Temescal Wash. Maintain existing breeding habitat for this species at Prado Basin, Santa Ana River and Temescal Wash.

A pair of least Bell's vireo were detected within the offsite impact area (Temescal Wash) during the 2021 focused survey effort as shown in Figure 11, *Sensitive Species Observation Map*. A total of 0.27-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (black willow, cottonwood, and mule fat scrub) will occur within the Temescal Wash offsite area. As outlined below, the MSHCP identifies four (4) objectives (presented as *italics/underlined*) for the protection of least Bell's vireo habitat located within Temescal Wash, followed by an analysis of MSHCP project consistency.

1. "Include within the MSHCP Conservation Area at least 9,430 acres of suitable habitat" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash within or adjacent to the 1.35-acre proposed dedicated conservation lands.
2. "Include within the MSHCP Conservation Area at least 8 core areas and interconnecting linkages" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash. The reach of Temescal Wash where the reestablishment will occur represents potential conservation land.

3. “Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important to the least Bell’s vireo. If survey results are positive, 90% of the occupied portions of the property that provide for long-term conservation value shall be conserved. This will involve including 100 meters of undeveloped landscape adjacent to the habitat conserved” (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of occupied habitat following implementation of all proposed mitigation measures (0.54-acre of riparian reestablishment) would not adversely impact conservation of core areas of linkages for the species. All MSHCP Urban/Wildlands Interface Guidelines measures will be implemented to ensure the species is not indirectly impacted by the proposed development and following proposed restoration activities within the temporary impact area.

4. “Within the MSHCP Conservation Area, maintain (once every 3 years) the continued use of, and successful reproduction at 75% percent of known vireo occupied habitat (including any nesting locations identified in the MSHCP Conservation Area in the future)” (MSHCP 2004). Based on recent as well as historic observations of least Bell’s vireo within Temescal Wash, the species is expected to breed within the permanent and temporary offsite impact area following completion of reestablishment measures which meet the minimum success criteria.

In addition to implementing all four (4) least Bell’s vireo objectives listed above, initial vegetation clearing of occupied or potential least Bell’s vireo habitat will occur outside of the nesting season (March 15th to September 15th). Potential indirect impacts to suitable least Bell’s vireo habitat within Temescal Wash during and following completion of construction and riparian reestablishment will be avoided by implementing all MSHCP Urban/Wildlands Interface Guidelines and Best Management Practices (BMP).

The proposed project would not conflict with Policy 19.3.

TCAP 19.4 Conserve and manage habitat for the benefit of Santa Ana sucker, Santa Ana speckled dace, and arroyo chub in the Temescal Canyon Area Plan at Prado Basin and the Santa Ana River, focusing on maintenance of the existing hydriodic regime and maintaining and improving water quality. Maintenance and enhancement of existing wetland and/or open water connections between the Santa Ana River and Temescal Wash may also benefit breeding for these species.

The Project will require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site where it will naturally discharge into Temescal Wash. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of **(BIO-MM6)**. The proposed project would not conflict with Policy 19.4.

TCAP 19.5 Conserve meaningful, interconnected representations of the Santa Ana Mountains and Riverside Lowlands bioregions within the Temescal Canyon Area Plan.

The majority of the Project Site is flat and disturbed as a result of historic impacts associated with the operation of a concrete pipe manufacturing facility. Development of the Project Site will not conflict with the goals of conserving natural habitat or linkages within these bioregions. The proposed project would not conflict with Policy 19.5.

TCAP 19.6 Conserve clay soils supporting sensitive plant species known to occur in the Temescal Canyon Area Plan including Munz's onion, Palmer's grappling hook, small-flowered morning glory, long-spined spineflower, thread-leaved brodiaea, small-flowered microseris, and many-stemmed dudleya.

No clay soils occur onsite as shown in Figure 9, Soils Association Map. The proposed project would not conflict with Policy 19.6.

TCAP 19.7 Conserve sandy soils cooccurring with chaparral supporting Palomar monkeyflower, known to occur in the Temescal Canyon Area Plan.

"Habitat for Palomar monkeyflower occurs on sandy soil in chaparral and yellow pine forest, sandy washes and in disturbed areas near roads and trails in the Santa Ana, Agua Tibia and San Jacinto mountains at higher elevations (1,500 m to 2,000 m)." (MSHCP 2004). No chaparral habitat was documented within or adjacent to the Project Site and the property is located below 1,000 feet elevation (300 meters). The proposed project would not conflict with Policy 19.7.

TCAP 19.8 Conserve locations supporting California muhly, heart-lived pitcher sage and Hall's monardella and other sensitive plant species that may occur in a wide variety of habitat types within the Temescal Canyon Area Plan.

"For the purpose of the conservation analysis, potential habitat for the California muhly includes chaparral, coastal sage scrub, montane coniferous forest, meadow, and meadow/marshes between 100 and 2,000 m. Potential habitat for Hall's monardella includes broad-leaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland and valley and foothill grassland within the Agua Tibia, San Jacinto, San Bernardino, and Santa Ana Mountains of western Riverside County. Potential habitat for heart-leaved pitcher sage includes closed-cone coniferous forest, chaparral and cismontane woodland elevations between 550 m and 1,370 m within the Santa Ana Mountains of Western Riverside County." (MSHCP 2004). The majority of the Project Site is flat and disturbed as a result of historic impacts associated with the operation of a concrete pipe manufacturing facility. Development of the Project Site will not conflict with the goals of conserving natural habitat for these sensitive plant species based on a lack of undisturbed soils and natural vegetation communities. The proposed project would not conflict with Policy 19.8.

TCAP 19.9 Provide for and maintain connection(s) from the Cleveland National Forest to Prado Basin and the Santa Ana River within the Temescal

Canyon Area Plan, providing opportunities for offsite connections to the Chino Hills State Park.

The Project will require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site where it will naturally discharge into Temescal Wash. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of (**BIO-MM6**). The proposed project would not conflict with Policy 19.9.

TCAP 19.10 Conserve upland habitat adjacent to Temescal Wash to augment existing upland habitat conservation in the Lake Mathews/Estelle Mountain Reserve areas and provide for contiguous connection of upland habitat blocks from the existing reserve to Temescal Wash. Habitat conservation should focus on blocks of existing upland habitat east of Temescal Wash connecting to the Lake Mathews/Estelle Mountain Reserve.

The proposed project is located west of Temescal Wash. All 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). The proposed project would not conflict with Policy 19.10.

TCAP 19.11 Conserve upland habitat in La Sierra Hills, focusing on maintenance of intact habitat block(s) with opportunities for connection to the Lake Mathews/Estelle Mountain Reserve.

The proposed project is located west of Temescal Wash. All 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). The proposed project would not conflict with Policy 19.11.

TCAP 19.12 Conserve floodplain areas supporting sensitive plant species known to occur in the Temescal Canyon Area Plan, including Parry's spineflower, peninsular spineflower, and smooth tarplant.

The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of (**BIO-MM6**). The proposed project would not conflict with Policy 19.12.

TCAP 19.13 Provide for and maintain a robust upland habitat connection from the eastern edge of Temescal Wash to the existing Lake Mathews/Estelle Mountain Reserve.

The proposed project is located west of Temescal Wash. All 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). The proposed project would not conflict with Policy 19.13.

TCAP 19.14 Provide for and maintain an upland habitat connection from La Sierra Hills to the Lake Mathews/Estelle Mountain Reserve.

The proposed project is located west of Temescal Wash. All 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). The proposed project would not conflict with Policy 19.14.

TCAP 19.15 Conserve rocky soils co-occurring with coastal sage scrub, peninsular juniper woodland, or chaparral supporting Payson's jewelflower, known to occur in the Temescal Canyon Area Plan.

For the purpose of the conservation analysis, potential habitat for Payson's jewelflower includes peninsular juniper woodland and scrub, chaparral and coastal sage scrub between 400 and 2,200 m in the southeastern portion of the Plan Area. The Project Site does not possess rocky substrates as shown in as shown in Figure 9, Soils Association Map and the property is located below 1,000 feet elevation (300 meters). The proposed project would not conflict with Policy 19.15.

TCAP 19.16 Provide for and maintain a continuous linkage along Temescal Wash from the southern boundary of the Temescal Canyon Area Plan to the Santa Ana River.

The proposed project will result in 0.39-acre of permanent and 0.23-acre of temporary impacts to Temescal Wash. A total of 1.35-acres of the Project Site located within Temescal Wash will be dedicated as conservation land (HANS 190024). Temporary and permanent impacts to Temescal Wash will be mitigated following implementation of (BIO-MM6). The proposed project would not conflict with Policy 19.12. The proposed project would not conflict with Policy 19.16.

County of Riverside Municipal Code

Chapter 4.62, MSHCP Mitigation Fee, BIO-MM2

The County of Riverside's Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the County General Plan and proposed development projects. As stated by the County of Riverside, the following are provisions within the Counties Municipal Code that are relevant to the proposed project.

"Sec. 4.62.070 – Western Riverside County Multiple Species Habitat Conservation Plan mitigation fee. In order to assist in providing revenue to acquire and conserve lands necessary to implement the MSHCP, the Western Riverside County Multiple Species Habitat Conservation Plan mitigation fee shall be paid for each residential unit, development project

or portion thereof to be constructed. Five categories of the fee are defined and include: (1) residential units, density less than 8.0 dwelling units per acre; (2) residential units, density between 8.1 and 14.0 dwelling units per acre; (3) residential, density greater than 14.1 dwelling units per acre; (4) commercial acreage; and (5) industrial acreage. Because there can be mixed traditional commercial, industrial and residential uses within the same project, for fee assessment purposes only, the commercial or industrial acreage fee shall be applied to the whole project based upon the existing underlying zoning classification of the property at the time of issuance of a building permit. Subject to an adjustment of the fee as set forth in Section 4.62.160 of this chapter, the following fee shall be paid for each development project within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan fee area:

- 1. Residential, density less than 8.0 dwelling units per acre \$1,651 per dwelling unit;*
- 2. Residential, density between 8.1 and 14.0 dwelling units per acre \$1.057 per dwelling unit;*
- 3. Residential, density greater than 14.1 dwelling units per acre \$859 per dwelling unit;*
- 4. Commercial \$5,620 per acre;*
- 5. Industrial \$5,620 per acre.*

Sec. 4.62.090 – Imposition of Fees. Notwithstanding any provision of Ordinance No. 457 to the contrary, no building permit shall be issued for any residential unit or development project except upon the condition that the Western Riverside County Multiple Species Habitat Conservation Plan fee required by this chapter be paid.

Sec. 4.62.100 Payment of Fees. *The fee shall be paid as follows:*

- The fee shall be paid in full at the time a certificate of occupancy is issued for the residential unit or development project or upon final inspection, whichever occurs first. No final inspection shall be made, and no certificate of occupancy shall be issued, prior to full payment of the Western Riverside County MSHCP Fee. However, this section shall not be construed to prevent payment of the fee prior to the issuance of an occupancy permit or final inspection.*
- A fee shall be assessed one time per lot or parcel except in cases of changes in land use. The fee required to be paid when there is a change in land use shall be reduced by the amount of any previously paid fee for that property. No refunds shall be provided for changes in land use to a lower fee category. It shall be the responsibility of the applicant to provide documentation of any previously paid fee.*

- *The fee for commercial and industrial development projects shall be paid in its entirety for the project area and shall not be prorated. The fee required to be paid shall be the fee in effect at the time of payment.*
- *There shall be no deferment of the fee beyond final inspection or issuance of certificate(s) of occupancy.*
- *Notwithstanding any other written requirements to the contrary, the fee shall be paid whether or not the development project is subject to city conditions of approval imposing the requirement to pay the fee.*
- *If all or part of the development project is sold prior to payment of the fee, the project shall continue to be subject to the requirement to pay the fee as provided herein.*
- *For development projects which the city does not require a final inspection or issuance of a certificate of occupancy, the fee shall be paid prior to any use or occupancy.*
- *For purposes of this chapter, congregate care residential facilities and recreational vehicle parks shall pay the commercial acreage fee.”*

Chapter 4.64, Stephens’ Kangaroo Rat (SKR) Mitigation Fee BIO-MM3

“4.64.060 Stephens’ Kangaroo Rat Mitigation fee. All applicants for development permits within the boundaries of the fee assessment area who cannot satisfy mitigation requirements through on-site mitigation as determined through the environmental review process shall pay a mitigation fee of five hundred dollars (\$500.00) per gross acre of the parcels proposed for development. However, for single-family residential development, wherein all lots within the development are greater than one-half acre in size, a mitigation fee of two hundred twenty-five dollars (\$250.00) per residential unit shall be paid; and for agricultural development which requires a development permit excluding the construction of single-family residences in connection with the agricultural development, a mitigation fee of one hundred dollars (\$100.00) or one percent of the valuation of the buildings to be constructed whichever is greater shall be paid, provided that at no time shall such fee exceed the amount required to be paid if a fee of five hundred dollars (\$500.00) per gross acre were applied to the parcel proposed for agricultural development. The determination of value or valuation of an agricultural building shall be made by the building official.”

“4.64.070 Imposition of fee. No development permit for real property located within the boundaries of the fee assessment area shall be issued or approved except upon the condition that on-site mitigation will be

provided as determined through the environmental review process or the mitigation fee required by this chapter be paid, and it is determined that the development will not jeopardize the implementation of a habitat conservation plan for the Stephens' Kangaroo Rat.”

“4.64.080 Payment of fee. The mitigation fee shall be paid upon issuance of a grading permit or a certificate of occupancy or upon final inspection, whichever occurs first. Payment of the mitigation fee shall satisfy county conditions of approval previously placed on development permits with regard to impact mitigation for the Stephens' Kangaroo Rat which have not been previously satisfied and no further review and approval pursuant to the provisions of this chapter shall be required..... The total number of surface acres of land within each phase shall be determined through a physical survey prepared by a licensed surveyor or registered civil engineer.”

FEDERAL

Federal Endangered Species Act

The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of the FESA of 1973, allowing participating jurisdictions to authorize "take" of plant and wildlife species. The MSHCP has been issued under this Section and provides incidental take for all covered species.

Clean Water Act

A stated by Glenn Lukos Associates:

“Army Corps of Engineers - Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a), pursuant to the Navigable Waters Protection Rule⁷ (NWPR), as:

(a) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term “waters of the United States” means:

- (1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;*
- (2) Tributaries;*
- (3) Lakes and ponds, and impoundments of jurisdictional waters; and*
- (4) Adjacent wetlands.*

⁷ U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(b) Non-jurisdictional waters. The following are not “waters of the United States”:

- (1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;*
- (2) Groundwater, including groundwater drained through subsurface drainage systems;*
- (3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
- (4) Diffuse stormwater run-off and directional sheet flow over upland;*
- (5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
- (6) Prior converted cropland;*
- (7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
- (8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
- (9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
- (10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;*
- (11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
- (12) Waste treatment systems.*

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the Ordinary High Water Mark (OHWM) which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Wetland Definition Pursuant to Section 404 of the Clean Water Act - The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil

conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List⁸⁹); soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland." (Glenn Lukos Associates 2020a)

Migratory Bird Treaty and Bald and Golden Eagle Protection Acts

Migratory birds including resident raptors and passerines are protected under the federal MBTA. The MBTA of 1918 implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the U.S. and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the Union of Soviet Socialist Republics (1976) further expanded the scope of international protection of migratory birds. Each new treaty has been incorporated into the MBTA as an amendment and the provisions of the new treaty are implemented domestically. These four treaties and their enabling legislation, the MBTA, established Federal responsibilities for the protection of nearly all species of birds, their eggs and nests. The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof. The Bald and Golden Eagle Protection Act affords additional protection to all bald and golden eagles.

STATE

California Endangered Species Act

⁸ Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

⁹ Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

The CESA is similar to FESA in that it contains a process for listing of species regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The MSHCP serves as an HCP pursuant the Natural Communities Conservation Plan (NCCP) under the NCCP Act of 2001, allowing participating jurisdictions to authorize "Take" of plant and wildlife species.

As stated by CDFW:

"On June 22, 2004, the Department issued NCCP Approval and Take Authorization for the Western Riverside County MSCHP per Section 2800 et seq. of the California Fish and Game Code. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit." (CDFG 2004)

California Fish and Game Code 3503 and 3513

As stated by CDFW:

"CHAPTER 1. General Provisions [3500 - 3516] (Chapter 1 enacted by Stats. 1957, Ch. 456.) It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. (Amended by Stats. 1971, Ch. 1470.)"

Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The CESA follows the NPPA and covers both plants and wildlife determined to be threatened with extinction or endangered. Plants listed as rare under the NPPA are designated as threatened under the CESA. No plants listed under the CESA occur on the Project Site onsite or offsite impact areas.

Regional Water Quality Control Board

A stated by Glenn Lukos Associates 2020b:

"Regional Water Quality Control Board - The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States¹⁰ and

¹⁰ Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code of Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional

waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

State Wetland Definition - The State Board Wetland Definition and Procedures define an area as wetland as follows: An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;¹¹*
and
3. *Artificial wetlands¹² that meet any of the following criteria:*
 - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;*
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;*

determination; “waters of the U.S.” identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of “waters of the U.S.” or any current or historic federal regulation defining “waters of the U.S.” under the federal Clean Water Act.

¹¹ “Created by modification of a surface water of the state” means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

¹² Artificial wetlands are wetlands that result from human activity.

- c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
- d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
- i. Industrial or municipal wastewater treatment or disposal,
 - ii. Settling of sediment,
 - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
 - iv. Treatment of surface waters,
 - v. Agricultural crop irrigation or stock watering,
 - vi. Fire suppression,
 - vii. Industrial processing or cooling,
 - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
 - ix. Log storage,
 - x. Treatment, storage, or distribution of recycled water, or
 - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
 - xii. Fields flooded for rice growing.¹³

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

California Department of Fish and Wildlife - Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

The Fish and Game Code defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW also defines a

¹³ Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.” (Glenn Lukos Associates 2020a)

ENVIRONMENTAL IMPACTS

The following sections include an analysis of the direct impacts, indirect impacts, and cumulative effects of the proposed action on sensitive biological resources. This analysis characterizes the project related activities that are anticipated to adversely impact the species, and when feasible, quantifies such impacts. Direct effects are defined as actions that may cause an immediate effect on the species or its habitat, including the effects of interrelated actions and interdependent actions. Indirect effects are caused by or result from the proposed actions, are later in time, and are reasonably certain to occur. Indirect effects may occur outside of the area directly affected by the proposed action.

Cumulative impacts refer to incremental, individual environmental effects of two or more projects when considered together. These impacts taken individually may be minor but may be collectively significant. Cumulative effects include future tribal, local, or private actions that are reasonably certain to occur in the proposal vicinity considered in this report. A cumulative impact to biological resources may occur if a project has the potential to collectively degrade the quality of the environment, substantially reduce the habitat of wildlife species or cause a population to drop below self-sustaining levels, thereby threatening to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

THRESHOLD OF SIGNIFICANCE

The environmental impacts relative to biological resources are assessed using impact significance criteria which mirror the policy statement contained in the CEQA at Section 21001 (c) of the Public Resources Code. This section reflects that the legislature has established it to be the policy of the state to:

“Prevent the elimination of fish and wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities...”

The following definitions apply to the significance criteria for biological resources:

- “*Endangered*” means that the species is listed as endangered under state or federal law.
- “*Threatened*” means that the species is listed as threatened under state or federal law.
- “*Rare*” means that the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens.
- “*Region*” refers to the area within southern California that is within the range of the individual species.
- “*Sensitive habitat*” refers to habitat for plants and animals (1) which plays a special role in perpetuating species utilizing the habitat on the property, and (2) without which there would be substantial danger that the population of that species would drop below self-perpetuating levels.
- “*Substantial effect*” means significance loss or harm of a magnitude which, based on current scientific data and knowledge, (1) would cause a species or a native plant or animal community to drop below self-perpetuating levels on a statewide or regional basis or (2) would cause a species to become threatened or endangered.

Impacts to biological resources may result in a significant adverse impact if one or more of the following conditions would result from implementation of the proposed project.

- a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?
- b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?
- c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Wildlife Service?
- d) 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?
- e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?
- f) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Also, the determination of impacts has been made according to the federal definition of “*take*”. The federal FESA prohibits the “*taking*” of a member of an endangered or threatened wildlife species or removing, damaging, or destroying a listed plant species by any person (including private individuals and private or government entities). The

FESA defines “take” as “to harass, harm, pursue, hunt, shoot, would, kill, trap, capture or collect” an endangered or threatened species, or to attempt to engage in these activities.

DIRECT IMPACTS

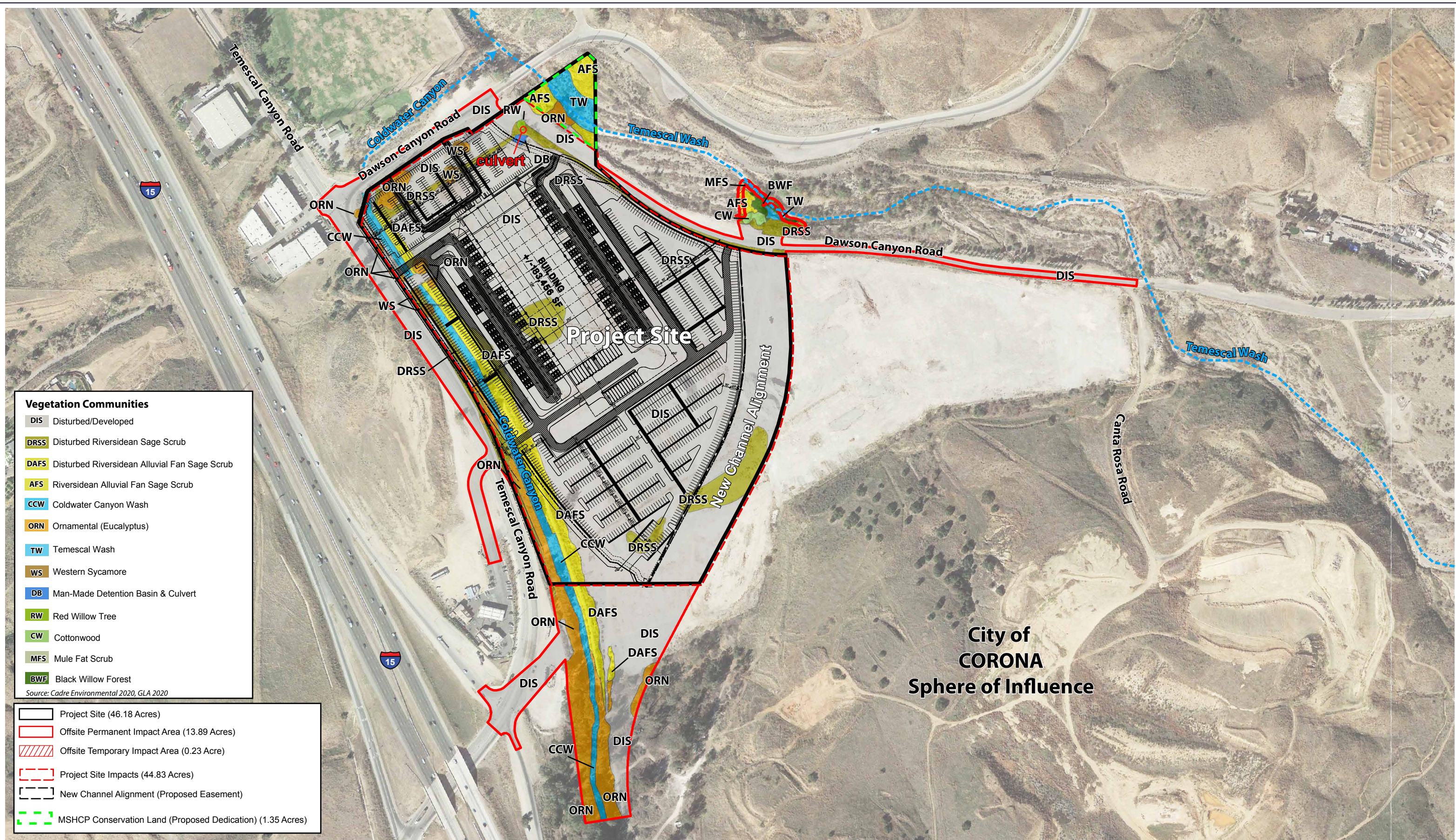
Vegetation Communities

A total of 58.95 acres of vegetation communities will be directly impacted as a result of project implementation as summarized in Table 6, *Vegetation Community Impacts*, and illustrated on Figure 13, *Vegetation Communities Impact Map*. Offsite impacts include road improvements, realignment of Temescal Canyon Road, realignment of Coldwater Canyon and construction of an outfall structure to Temescal Wash. Direct impacts to all vegetation communities will be mitigated to a level of less than significant by implementing Biological Mitigation and Avoidance Measure (**BIO-MM1**). A total of 1.35-acres of the Project Site is located within the Temescal Wash floodprone area. All 1.35-acres of the Project Site located within the Temescal Wash floodprone area will be dedicated as conserved land (HANS 190024) (**BIO-MM2**).

Table 6. Vegetation Community Impacts

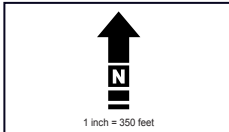
Vegetation Type	Acres (onsite)	Acres (offsite)	Acres Impact Perm (onsite)	Acres Impact Perm (offsite)	Acres Impact Temp (offsite)	TOTAL Impacts	Dedicated Conserved Land
Disturbed Developed	37.41	9.71	37.36	9.71	0.00	47.07	0.05
Disturbed Riversidean Sage Scrub	2.87	0.72	2.87	0.69	0.03	3.59	0.00
Disturbed/Riversidean Alluvial Fan Sage Scrub	2.23	0.47	2.23	0.47	0.00	2.70	0.00
Riversidean Alluvial Fan Sage Scrub	0.64	0.13	0.00	0.08	0.05	0.13	0.64
Ornamental & Native Trees	1.31	2.21	1.19	2.21	0.00	3.40	0.12
Coldwater Canyon	1.18	0.51	1.18	0.51	0.00	1.69	0.00
Temescal Wash	0.54	0.10	0.00	0.05	0.05	0.10	0.54
Black Willow Forest	0.00	0.17	0.00	0.09	0.08	0.17	0.00
Cottonwood	0.00	0.07	0.00	0.07	0.00	0.07	0.00
Mule Fat Scrub	0.00	0.03	0.00	0.01	0.02	0.03	0.00
TOTALS	46.18	14.12	44.83	13.89	0.23	58.95	1.35

*Source: Cadre Environmental 2021.



Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 13 - Vegetation Communities Impact Map
 Biological Resources Technical Report
 Temescal Valley Commerce Center Project Site



Protected Trees

The following regulations apply to tree removal within Riverside County: 1) Riverside County Ordinance No. 499, 2) Riverside County Ordinance No. 559, and 3) The Riverside County Oak Tree Management Guidelines address the treatment of oak woodlands and their preservation. No trees will be removed within the County of Riverside right-of-way and the Project Site is located below 5,000 feet in elevation. No oak species occur onsite and the removal of primarily Eucalyptus trees would not conflict with any County of Riverside protected tree ordinance or oak tree management guidelines. No Impact.

Sensitive Plants

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" (MSHCP 2004).

The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including Munz's onion, San Diego ambrosia, multi-stemmed dudleya, spreading navarretia, slender-horned spineflower, San Miguel savory, Hammitt's clay-cress, California Orcutt grass, and Wright's trichocoronis (RCA GIS Data Downloads 2020). No suitable habitat was documented or will be impacted onsite for MSHCP narrow endemic plants species as outlined in Table 3, Sensitive Plant Species with Potential to Occur Onsite (Glenn Lukos Associates 2021a). No Impact.

The Project Site occurs completely within an MSHCP predetermined Survey Area for seven (7) criteria area plant species: Coulter's goldfields, Davidson's saltscale, little mousetail, Parish's brittlescale, round-leaved filaree, smooth tarplant, and thread-leaved brodiaea (RCA GIS Data Downloads 2020). No suitable soils were documented onsite for MSHCP criteria area plants as outlined in Table 3, Sensitive Plant Species with Potential to Occur Onsite (Glenn Lukos Associates 2021a). No Impact.

No state or federally listed threatened or endangered plant species were detected or expected to occur onsite. No other CNPS, special-status plants, or species of local concern were observed onsite or expected to be present onsite as outlined in Table 3, *Sensitive Plant Species with Potential to Occur Onsite*. No Impact.

Sensitive Wildlife

The MSHCP has determined that all of the sensitive species potentially occurring onsite have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required wildlife species if suitable habitat is documented onsite and/or if the property is located within a predetermined "Survey Area" (MSHCP 2004).

The Project Site occurs partially within a predetermined Survey Area for the burrowing owl. Suitable burrowing owl burrows potentially utilized for refugia and/or nesting were

documented adjacent to the property including foraging habitat documented throughout the Project Site. Therefore, focused surveys were conducted by Cadre Environmental during the spring and summer of 2019. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the project site during the 2019 or 2021 survey effort (Cadre Environmental 2020, 2021).

Regardless, at a minimum, a 30-day preconstruction survey will be conducted immediately prior to the initiation of construction to ensure protection for this species and compliance with the conservation goals as outlined in the MSHCP. If burrowing owls are detected onsite during the 30-day preconstruction survey, a burrowing owl relocation plan will be developed for the passive/active translocation of individuals as directed by the RCA and wildlife agencies. Potential impacts to burrowing owl will be mitigated by implementing Biological Mitigation and Avoidance Measure (**BIO-MM3**).

Incidental MSHCP covered species documented during the focused survey includes the yellow warbler (SSC) and yellow-breasted (SSC). Sensitive wildlife species expected to frequently or infrequently utilize the Project Site for movement, refugia, breeding and foraging include western spadefoot (SSC), orange-throated whiptail (CWL), coastal western whiptail (SSC), red-diamond rattlesnake (SSC), coast horned lizard (SSC), Cooper's hawk (SSC), southern California rufous-crowned sparrow (CWL), Bell's sage sparrow (CWL), white-tailed kite (SFP), California horned lark (SWL), loggerhead shrike (SSC), coastal California gnatcatcher (FT, SSC), northwestern San Diego pocket mouse (SSC), Dulzura kangaroo rat (SSC), San Diego black-tailed jackrabbit (SSC), bobcat, and mountain lion. As previously stated, the MSHCP has determined that all of these sensitive species documented or potentially occurring within the Temescal Valley Commerce Center have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Potential impacts to these sensitive species will be mitigated by implementing Biological Mitigation and Avoidance Measures (**BIO-MM1** to **BIO-MM3**).

The Project Site possess vegetation including trees and shrubs expected to potentially provide nesting habitat for raptors and migratory birds protected under the CDFG Codes. Measures for potential direct/indirect impacts to common and sensitive bird and raptor species will require compliance with the CDFG Code Section 3503. Construction outside the nesting season (between September 1st and February 15th) does not require preconstruction nesting bird surveys. However, if construction is proposed between February 16th and August 31st, a qualified biologist will conduct a preconstruction nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds or raptors within or directly adjacent (100 feet) to the Project Site.

Loss of an active nest would be considered a potentially significant impact. Impacts to raptor foraging and potential nesting habitat would be reduced to less than significant with the implementation of Biological Mitigation and Avoidance Measure (**BIO-MM4**).

No vernal pools were documented onsite based on a lack of suitable soils and characteristic vernal pool plant species. Although the one (1) 0.03-acre heavily disturbed basin located along the northwest boundary may be occupied by the common

versatile fairy shrimp, the basin is not expected to be occupied by the Riverside fairy shrimp or vernal pool fairy shrimp. The man-made detention basin and culvert was created in 2012 to capture seasonal overflow from Coldwater Canyon resulting from the unnatural flow pattern at the intersection of Temescal and Dawson Canyon Roads. Coldwater Canyon will be redirected to its historic alignment in the eastern region of the Project Site and the feature will no longer be hydrated by sheet flow. The Project Site is dominated by sandy loam substrates, and the feature does not provide long-term conservation value for any target MSHCP species. No Impact.

No suitable habitat (riparian forest/woodlands) for the southwestern willow flycatcher or western yellow-billed cuckoo was detected within or adjacent to the Project Site.

Suitable habitat for the MSHCP covered least Bell's vireo (*Vireo bellii pusillus*), was documented within and adjacent to the northern Project Site boundary (Temescal Wash). A pair of least Bell's vireo were detected within the offsite impact area located within Temescal wash during the 2021 focused survey effort. A total of 0.27-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (black willow, cottonwood, and mule fat scrub) will occur within the Temescal Wash offsite area. As outlined below, the MSHCP identifies four (4) objectives (presented as *italics/underlined*) for the protection of least Bell's vireo habitat located within Temescal Wash, followed by an analysis of MSHCP project consistency.

1. "Include within the MSHCP Conservation Area at least 9,430 acres of suitable habitat" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash.
2. "Include within the MSHCP Conservation Area at least 8 core areas and interconnecting linkages" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash. The reach of Temescal Wash where the reestablishment will occur represents potential conservation land.
3. "Include within the MSHCP Conservation Area additional areas within the Criteria Area identified as important to the least Bell's vireo. If survey results are positive, 90% of the occupied portions of the property that provide for long-term conservation value shall be conserved. This will involve including 100 meters of undeveloped landscape adjacent to the habitat conserved" (MSHCP 2004). Permanent and temporary impacts to 0.27-acre of occupied habitat following implementation of all proposed mitigation measures (0.54-acre of riparian reestablishment) would not adversely impact conservation of core areas of linkages for the species. All MSHCP Urban/Wildlands Interface

Guidelines measures will be implemented to ensure the species is not indirectly impacted by the proposed development and following proposed restoration activities within the temporary impact area.

4. “Within the MSHCP Conservation Area, maintain (once every 3 years) the continued use of, and successful reproduction at 75% percent of known vireo occupied habitat (including any nesting locations identified in the MSHCP Conservation Area in the future)” (MSHCP 2004). Based on recent as well as historic observations of least Bell’s vireo within Temescal Wash, the species is expected to breed within the permanent and temporary offsite impact area following completion of reestablishment measures which meet the minimum success criteria.

In addition to implementing all four (4) least Bell’s vireo objectives listed above, initial vegetation clearing of occupied or potential least Bell’s vireo habitat will occur outside of the nesting season (March 15th to September 15th). Potential indirect impacts to suitable least Bell’s vireo habitat within Temescal Wash during and following completion of construction and riparian reestablishment will be avoided by implementing all MSHCP Urban/Wildlands Interface Guidelines and BMPs.

The Project Site falls within the SKR Fee Area outlined in the Riverside County SKR HCP. The project applicant shall pay the fees pursuant to County Ordinance 663.10 for the SKR HCP Fee Assessment Area as established and implemented by the County of Riverside (**BIO-MM5**).

Jurisdictional Resources/MSHCP Section 6.1.2 Resources

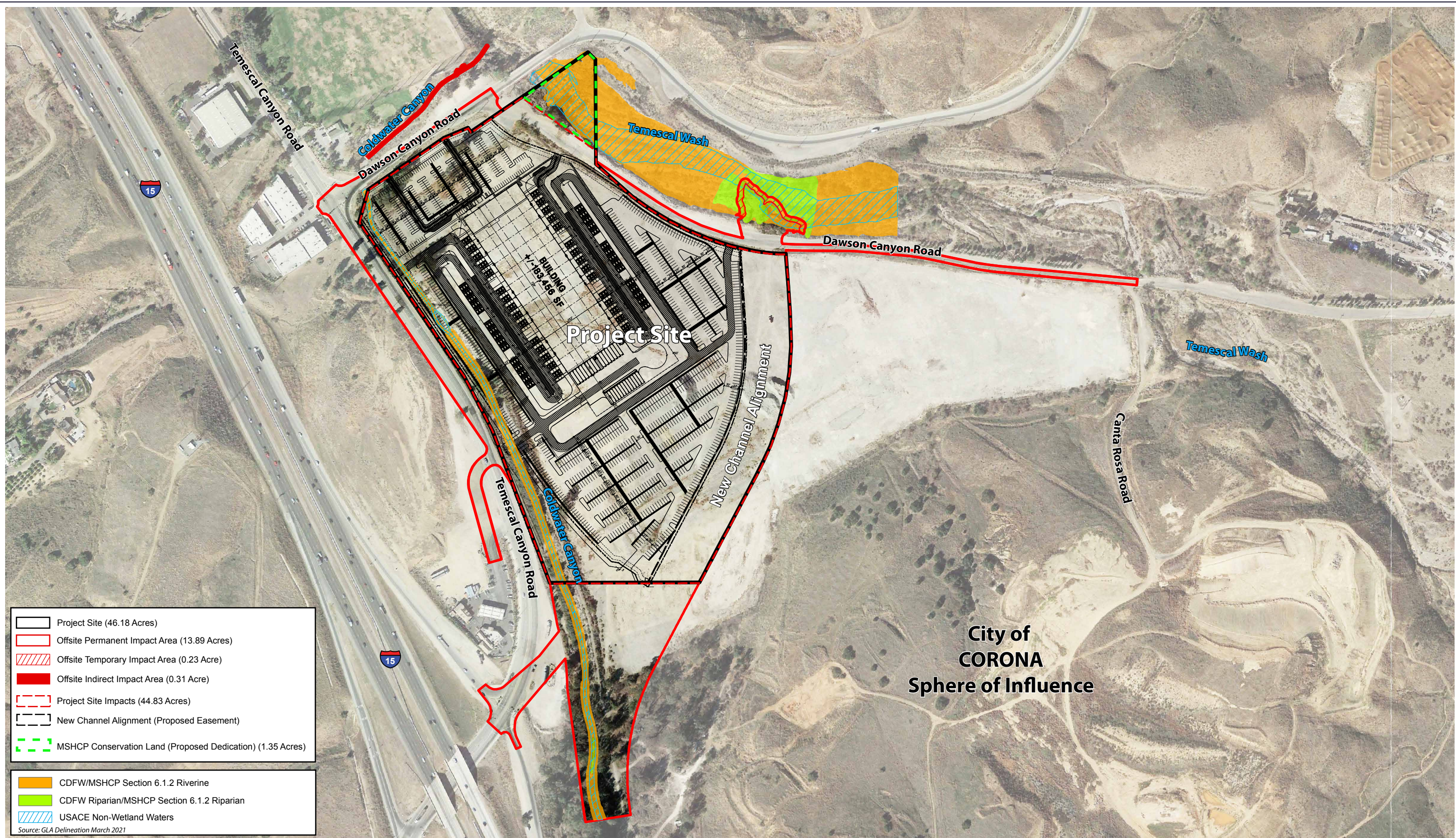
The following section is excerpted and/or summarized directly from the following document prepared by Glenn Lukos Associates “*Jurisdictional Delineation of the Corona Clay Project Site, an Approximate 46.18-Acre Property Located in the City of Corona Sphere of Influence, Riverside County*”, as outlined in Table 7, *USACE Jurisdictional Resources: Impacts and Avoidance*, Table 8, *CDFW/MSHCP Jurisdictional Resources: Impacts and Avoidance*, and as shown in Figure 14, *Jurisdictional Resources Impact Map*.

As summarized in the following sections CDFW jurisdiction exceeds USACE jurisdiction and any project mitigation necessary to satisfy the requirements of CDFW would also satisfy the requirement of the USACE and RWQCB.

Coldwater Canyon Creek

Construction of the project will result in fill of the 0.50-acre onsite segment of USACE jurisdiction, accounting for 1,847 linear feet and would also include indirect impacts to 0.31-acre of offsite areas, accounting for 966 linear feet, none of which consists of wetlands.

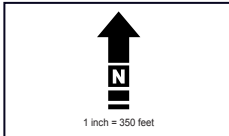
Construction of the project will result in fill of the 1.22-acres of CDFW jurisdiction onsite, accounting for 1,847 linear feet and would also include fill of 1.32 acre of offsite areas of which 0.02-acre is riparian habitat accounting for 540 linear feet (2.54 acres total).



- Project Site (46.18 Acres)
 - Offsite Permanent Impact Area (13.89 Acres)
 - Offsite Temporary Impact Area (0.23 Acre)
 - Offsite Indirect Impact Area (0.31 Acre)
 - Project Site Impacts (44.83 Acres)
 - New Channel Alignment (Proposed Easement)
 - MSHCP Conservation Land (Proposed Dedication) (1.35 Acres)
-
- CDFW/MSHCP Section 6.1.2 Riverine
 - CDFW Riparian/MSHCP Section 6.1.2 Riparian
 - USACE Non-Wetland Waters
- Source: GLA Delineation March 2021

Project Site APN: 283-160-043. Offsite Impact Area APNs: Portions of 283-160-009, -030, -035, 283-170-012, -013, -015, -21, 283-190-013, -024, 283-200-008, and -009

Figure 14 - Jurisdictional Resources Impact Map
Biological Resources Technical Report
Temescal Valley Commerce Project Site



Temescal Wash

A limited area of Temescal Wash occurs offsite that will be subject to impacts for construction of an outfall for Coldwater Canyon Creek that will be realigned and include the new Temescal Wash discharge location. Construction of the outfall would result in permanent impacts to 0.16-acre of USACE jurisdiction, none of which consists of wetlands and 0.16-acre of temporary impacts to USACE jurisdiction, none of which consist of wetlands.

**Table 7.
USACE Jurisdictional Resources: Impacts and Avoidance**

Drainage	Type	Location	Total (acres/linear feet)	Temporary Impact (acres/linear feet)	Permanent Impact (acres/linear feet)
Coldwater Canyon Creek					
Coldwater Canyon Creek	Non-Wetland Intermittent	Onsite	0.50/1,847	0.00	0.50/1,847
Coldwater Canyon Creek	Non-Wetland Intermittent	Offsite	0.31/966	0.00	0.31/966
Temescal Wash					
Temescal Wash	Non-Wetland Intermittent	Onsite	0.60/279	0.0/0.0	0.0/0.0
Temescal Wash	Non-Wetland Intermittent	Offsite	0.32/310	0.16/310	0.16/274
Total				0.16	0.97

Source: GLA 2020a

A limited area of Temescal Wash occurs offsite that will be subject to impacts for construction of an outfall for Coldwater Canyon Creek that will be realigned and include the new Temescal Wash discharge location. Construction of the outfall would result in permanent impacts to 0.39 acre of CDFW jurisdiction, of which 0.25 acre consists of vegetated riparian habitat and 0.23 acre of temporary impacts, of which consist 0.15 acre consists of vegetated riparian habitat. A breakdown of the riparian habitat alliances in Temescal Wash is provided in Table 8 below.

**Table 8.
CDFW/MSHCP Jurisdictional Resources: Impacts and Avoidance**

Drainage	Type	Location	Total (Acres)	Temporary Impact (Acres)	Permanent Impact (Acres)
Coldwater Canyon Creek					
Coldwater Canyon Creek	Non-Riparian Intermittent	Onsite	1.22	0.00	1.22
Coldwater Canyon Creek	Non-Riparian Intermittent	Offsite	1.30	0.00	1.30
Coldwater Canyon Creek	Riparian Intermittent	Offsite	0.02	0.00	0.02
Coldwater Canyon Creek Total			2.54	0.00	2.54
Temescal Wash					
Temescal Wash	Non-Riparian Intermittent	Onsite	1.02	0.0	0.0
Temescal Wash	Non-Riparian Intermittent	Offsite	0.22	0.08	0.14
Temescal Wash	Intermittent – Alluvial Scrub	Offsite	0.13	0.05	0.08
Temescal Wash	Intermittent – Black Willow	Offsite	0.17	0.08	0.09
Temescal Wash	Intermittent – Cottonwood	Offsite	0.07	0.0	0.07
Temescal Wash	Intermittent – Mulefat Scrub	Offsite	0.03	0.02	0.01
Temescal Total			1.64	0.23	0.39

Source: GLA 2020a.

Permanent onsite/offsite impacts to 2.93-acre (0.25-acre riparian, 2.68-acre riverine) and temporary onsite/offsite impacts to 0.23-acre (0.08-acre riverine, 0.15-acre riparian) of MSHCP Section 6.1.2 Riparian/Riverine resources (3.16-acres total) will be mitigated following review and approval of a DBESP by the County of Riverside EPD Regional Conservation Authority (RCA) and wildlife agencies (**BIO-MM6**).

Offsite permanent (0.05-acre) and temporary (0.08-acre) impacts to RAFSS (0.13-acre total within the 3.16-acre impact area) within Temescal Wash as a result of the proposed realignment of Coldwater Canyon will be mitigated at a ratio of 3:1 (0.39-acre) through the reestablishment of RAFSS in the temporary offsite impact area as well as disturbed habitats within or adjacent to the 1.35-acre land dedication within Temescal Wash (**BIO-MM6**).

Permanent impacts to 2.93-acre, temporary impacts to 0.23-acre of CDFW, and 1.13-acre of USACE regulated resources will mitigated following implementation of (**BIO-MM7**).

Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis

As documented in the previous section (REGIONAL AND REGULATORY SETTING, LOCAL, Western Riverside County Multiple Species Habitat Conservation Plan Compliance Analysis), implementation of the proposed project will be consistent with all provisions, guidelines and objectives of the MSHCP following implementation of Biological Mitigation and Avoidance Measures (**BIO-MM1** to **BIO-MM7**).

INDIRECT IMPACTS

Jurisdictional Resources/MSHCP Section 6.1.2 Resources

Coldwater Canyon Creek was realigned in the late 1960's or early 1970's with the construction of the concrete pipe manufacturing facility that previously occupied the Project site. The path of the creek was shifted from the approximate center of the site to the western edge of the site parallel to Temescal Canyon Road and much of the drainage adjacent to the site has been channelized through the installation of rip rap to maintain the drainage in its current channel. With the realignment, the current channel would be filled during site grading and the drainage would be realigned. With the realignment of the channel and filling of the existing drainage, flows that currently continue downstream from the bridge at Dawson Canyon Road, continuing for approximately 650 feet to Temescal Wash. This 650-foot segment, that averages approximately 20 feet in width, would experience reduced discharge. (Glenn Lukos Associates. 2021b)

This segment consists largely of unvegetated channel that supports limited riparian habitat consisting of an approximately 0.04-acre patch of arroyo willow which occurs just above the confluence with Temescal Wash. Thus, the reduced discharge would not result in significant losses to riparian habitat, as it is likely, that the willows are supported by subsurface water and do not specifically depend of surface discharge. Nevertheless, CDFW and the RWQCB would likely consider the reduction in hydrology (as opposed to the increases experienced by Temescal Wash) to be a significant impact to the 650-foot segment of Coldwater Canyon Creek, which would remain untouched by the project. Indirect impacts to the offsite, downstream Coldwater Canyon Creek, due to reduction in stream discharge associated with realignment of Coldwater Canyon Creek accounting for 0.31-acre will be mitigated through the purchase of 0.31-acre of reestablishment and 0.31-acre of rehabilitation credits from the Riverpark Mitigation Bank for a ratio of 2:1, totaling 0.62-acre (**BIO-MM6** and **BIO-MM7**). With the proposed mitigation, potentially significant indirect impacts would be reduced to less-than-significant. (Glenn Lukos Associates. 2021b)

MSHCP Urban/Wildlands Interface Guidelines

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area. The Project Site is not currently located adjacent to an existing MSHCP Conservation Area. However, final reserve design may result in conserved lands being established both

north and east of the Project Site. Therefore, as addressed below all proposed Urban/Wildlands Interface Guidelines and Best Management Practices (BMP) will be implemented.

Water Quality/Hydrology

The project will comply with all applicable water quality regulations, including obtaining and complying with those conditions established in (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permits. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable Best Management Practices (BMPs) during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any stream course. The Project would also require that the reach of Coldwater Canyon located adjacent to Temescal and Dawson Canyon Roads be redirected to its historic alignment in the eastern region of the Project Site. A 180-foot wide, 5.70-acre drainage easement will be granted to the County of Riverside. No significant impacts are anticipated.

Toxics

Storm water treatment systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources. Toxic sources within the Project Site would be limited to those commonly associated with warehouse development, such as pesticides, insecticides, herbicides, fertilizers, and vehicle emissions. In order to mitigate the potential effects of these toxics, the project will incorporate structural BMPs, as required in association with compliance with WDRs and the NPDES permit system, in order to reduce or prevent the level of toxins introduced into the Temescal Wash and the surrounding areas.

Specifically, in terms of safeguarding against release of toxins, the project will possess an underground water quality system. All onsite water will flow through storm drain lines into underground rock lined chambers. There, the water will desilt and settle, then run through bio-filtration units. For the most part, most storms will not make it into the channel. For big events, as the chambers fill, they will release water that has been run through the system. No significant impacts are anticipated.

Lighting

Night lighting associated with the proposed development will be directed away from potential conserved open space habitat located north and west of the Project Site. No significant impacts are anticipated.

Noise

Because the proposed project development will not result in noise levels that exceed residential, commercial or mixed-use noise standards established for Riverside County, wildlife within open space habitats west of the Project Site will not be subject to noise

that exceeds these established standards. Short-term construction-related noise impacts will be reduced by the implementation of the following:

- During all Project Site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards
- The construction contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by County of Riverside staff.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

No significant impacts are anticipated.

Invasive Species

The landscape plans for the residential, commercial and mixed development shall avoid the use of invasive species for the portions of the development areas adjacent to the open space areas west of the Project Site. Invasive plants that should be avoided are included in Table 6-2 of the MSHCP, *Plants That Should Be Avoided Adjacent to the MSHCP Conservation Area*. No significant impacts are anticipated.

Barriers

Barriers are intended to reduce or minimize unauthorized public access and associated impacts to protected resources. The Project Site is a commercial warehouse project which will be completely fenced preventing staff from entering potential conserved lands both north and west of the property. No barriers within Temescal Wash are proposed. No significant impacts are anticipated.

CUMULATIVE IMPACTS

The permanent direct and/or indirect impacts of the project would not result in significant cumulative impacts (CEQA Section 15310) to environmental resources within the region of the Project Site. Cumulative impacts refer to incremental effects of an individual project when assessed with the effects of past, current, and proposed projects. Although the project would result in the permanent loss of 58.95 acres of primarily disturbed lands (82%), the MSHCP was developed to address the comprehensive regional planning effort and anticipated growth in the County of Riverside. The proposed project has been designed and mitigated to remain in compliance with all MSHCP conservation goals and guidelines and therefore will not result in an adverse cumulative impact.

MITIGATION & AVOIDANCE MEASURES

The following biological mitigation and avoidance measures address those adverse impacts determined to be potentially significant or are relevant to the protection of biological resources to the extent practicable as part of ensuring compliance and consistency with all MSHCP conservation goals and CEQA guidelines.

BIO-MM1 MSHCP Local Development Mitigation Fee

The project applicant shall pay MSHCP Local Development Mitigation fees as established and implemented by the County of Riverside. Five categories of the fee are defined and include: Residential, density less than 8.0 dwelling units per acre \$1,651 per dwelling unit; Residential, density between 8.1 and 14.0 dwelling units per acre \$1.057 per dwelling unit; Residential, density greater than 14.1 dwelling units per acre \$859 per dwelling unit; Commercial \$5,620 per acre; and Industrial \$5,620 per acre.

BIO-MM2 MSHCP Proposed Conservation Area

The project applicant will provide the RCA with fee title/ownership and management responsibilities for 1.35-acres of MSHCP Proposed Conservation Area located within the Temescal Wash floodprone area as indicated on HANS 190024, and as illustrated on Figure 12, *MSHCP Reserve Assembly Analysis Map*.

BIO-MM3 MSHCP Burrowing Owl 30-Day Preconstruction Survey

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

If burrowing owls are detected onsite during the 30-day preconstruction survey, during the breeding season (February 1st to August 31st) then construction activities shall be limited to beyond 300 feet of the active burrows until a qualified biologist has confirmed that nesting efforts are complete or not initiated. In addition to monitoring breeding activity, if construction is proposed to be initiated during the breeding season or active/passive relocation is proposed, a burrowing owl mitigation plan will be developed and approved by the County of Riverside Environmental Programs Division, CDFW and USFWS.

BIO-MM4 Regulatory Requirement CDFG Code

Regulatory requirement for potential direct/indirect impacts to nesting common and sensitive bird and raptor species will require compliance with the CDFG Code Section 3503. Construction outside the nesting season (between September 1st and January 31st) do not require pre-removal nesting bird surveys. If construction is proposed between February 1st and August 31st, a qualified biologist will conduct a nesting bird

survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the Project Site.

The survey(s) will focus on identifying any raptors and/or bird nests that are directly or indirectly affected by construction activities. If active nests are documented, species-specific measures will be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest will be postponed until the young birds have fledged. The perimeter of the nest setback zone will be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, will be submitted to the County of Riverside Environmental Programs Division for review and approval prior to initiation of grading in the nest-setback zone.

The qualified biologist will serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. A final monitoring report of the findings, prepared by a qualified biologist, will be submitted to the County of Riverside Environmental Programs Division documenting compliance with the CDFG Code. Any nest permanently vacated for the season would not warrant protection pursuant to the CDFG Code.

BIO-MM5 SKR Fee Area

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

BIO-MM6 MSHCP Riparian/Riverine Resources

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset permanent impacts to 2.93-acres (0.25-acre riparian, 2.68-acre riverine) and temporary impacts to 0.23-acre (0.08-acre riverine, 0.15-acre riparian) of MSHCP Section 6.1.2 riparian and riverine resources (3.16-acres total) as follows and prepare an MSHCP Determination of Biological Equivalent or Superior Preservation.

1. Mitigation for permanent impacts to 2.93-acres of riverine habitat within Coldwater Canyon Creek and Temescal Wash would include 2.93-acres of reestablishment and 2.93-acres of rehabilitation credits from the Riverpark Mitigation Bank for a ratio of 2:1, totaling 5.86-acres.
2. Mitigation for temporary impacts to 0.23-acre of riverine habitat within Temescal Wash would be mitigated with 0.23-acre of reestablishment and 0.23 acre of rehabilitation credits from the Riverpark Mitigation Bank for a ratio of 2:1, totaling 0.46-acre.

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset indirect impacts to 0.31-acre of Coldwater Canyon as follows:

3. Indirect impacts to the offsite, downstream Coldwater Canyon Creek, due to reduction in stream discharge associated with realignment of Coldwater Canyon Creek accounting for 0.31-acre will be mitigated through 0.31-acre of reestablishment and 0.31-acre of rehabilitation credits from the Riverpark Mitigation Bank for a ratio of 2:1, totaling 0.62-acre.

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset 0.27-acre of 3.16-acres of MSHCP Section 6.1.2 riparian and riverine resources impacts to least Bell's vireo habitat as follows:

4. Permanent and temporary impacts to 0.27-acre of riparian habitat occupied or representing suitable habitat for the least Bell's vireo within Temescal Wash will be subject to additional mitigation through reestablishment of 0.34-acre of black willow, 0.14-acre cottonwood and 0.06-acre of mule fat scrub (0.54-acre total) resulting in a 2:1 replacement of Section 6.1.2 Riparian habitat within Temescal Wash.

To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset 0.13-acre of impacts to MSHCP Section 6.1.2 Riversidean alluvial fan sage scrub as follows:

5. Offsite permanent (0.05-acre) and temporary (0.08-acre) impacts to RAFSS (0.13-acre total) within Temescal Wash as a result of the proposed realignment of Coldwater Canyon will be mitigated at a ratio of 3:1 (0.39-acre) through the reestablishment of RAFSS in the temporary offsite impact area as well as disturbed habitats within or adjacent to the 1.35-acre conservation land dedication within Temescal Wash.

BIO-MM7 USACE/CDFW/RWQCB

Prior to issuance of a grading permit, the project applicant will obtain a, Clean Water Act (CWA) Section 404 permit, 1602 Streambed Alteration Agreement from CDFW and a WDR permit issued by the RWQCB pursuant to the California Water Code Section 13260.

Implementation of Mitigation and Avoidance Measures **BIO-MM1** through **BIO-MM7** would reduce all potential significant unavoidable impacts on biological resources below a level of significance and ensure compliance with MSHCP conservation requirements.

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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.*

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