Western Riverside County - MSHCP Consistency Analysis

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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1. EXECUTIVE SUMMARY

The 46.18-acre (14.12-acre offsite) Temescal Valley Commerce Center Project Site (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).

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.

A Habitat Evaluation and Acquisition Negotiation Strategy (HANS) determination HANS 190024 was issued by the County of Riverside Environmental Programs Division. 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. The following report was prepared for use during the Joint Project Review (JPR) and analysis of consistency with the MSHCP reserve design and guidelines.

The Project Site is not located within an MSHCP Survey area for amphibians, or mammals (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 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 2021). No MSHCP narrow endemic plant species were detected onsite during focused surveys 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 2021). 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. The project is consistent with MSHCP Section 6.3.2.

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, mule fat scrub and cottonwood) will occur within the Temescal Wash offsite area. As detailed in the following report, the project will comply with the four (4) MSHCP objectives for the protection of least Bell's vireo habitat.

Permanent impacts to 2.93-acre (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/Riverine resources (3.16-acres total) will be mitigated following review and approval of a Determination of Biological Equivalent or Superior Preservation (DBESP) by the County of Riverside Environmental Programs Division (EPD) and wildlife agencies (Glenn Lukos Associates 2020). 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. As a result of the realignment, 0.31-acre of indirect offsite impacts will occur to the downstream reach of Coldwater Canyon Creek due to reduction in stream discharge. To meet the criteria of a biologically equivalent or superior alternative, the applicant will offset permanent and temporary impacts to 3.16-acre and indirect impacts to 0.31-acre of MSHCP Section 6.1.2 Riparian and Riverine resources as follows:

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 Riversidean alluvial fan sage scrub (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 Riversidean alluvial fan sage scrub in the temporary offsite impact area as well as disturbed habitats within Temescal Wash.

None of the twenty-eight (28) MSHCP species not adequately covered has the potential to occur within the Project Site impact area.

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. Following implementation of the UWIG and BMP's the proposed action would be

Consistent with MSHCP goals and objectives for Criteria Areas 3035 and 3036, Cell Group F.

2. INTRODUCTION

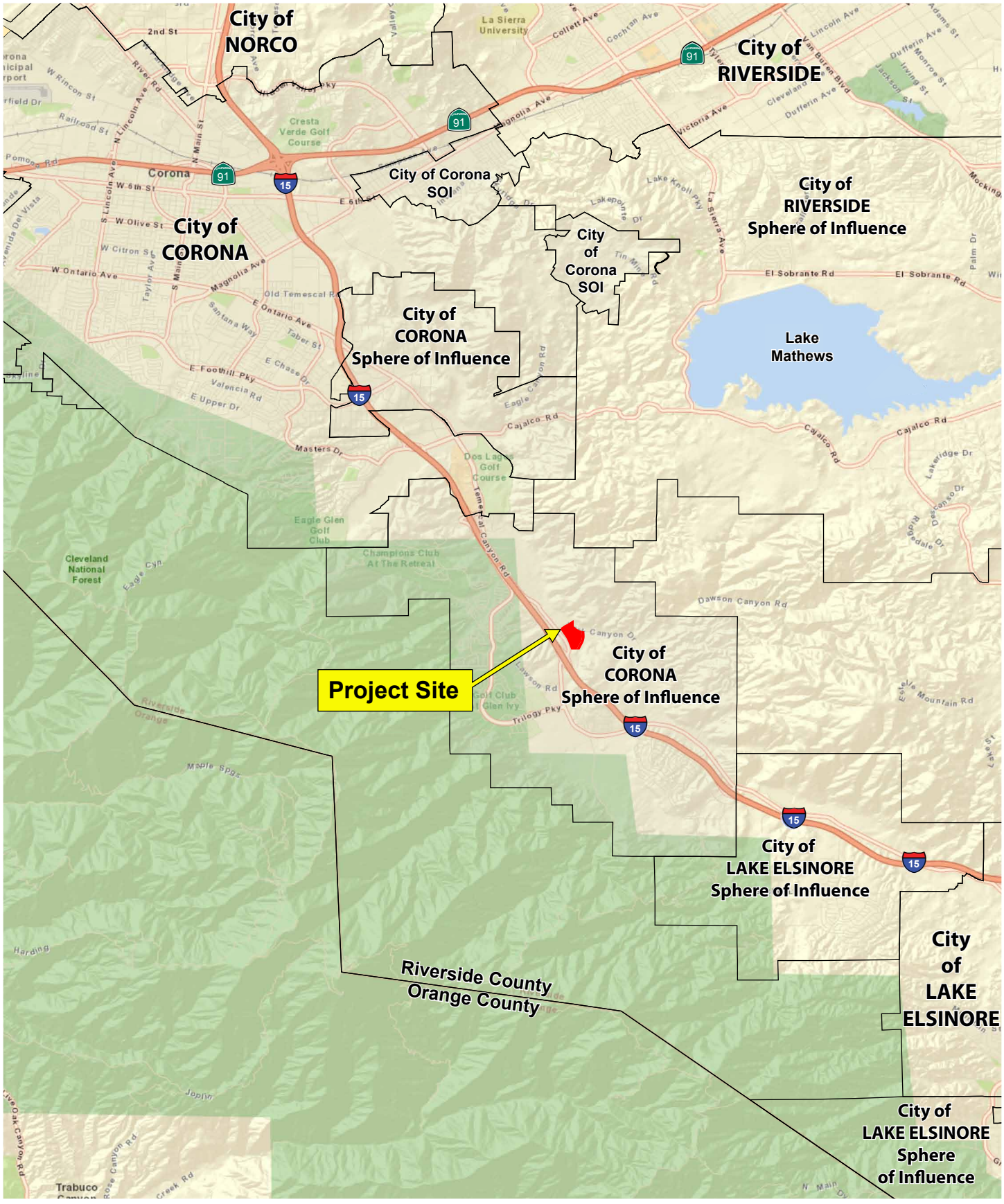
This document presents the results of a Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis (Analysis) and habitat assessment conducted on May 21st, 2019 and September 14th, 2020 by Cadre Environmental and Jurisdictional Delineation conducted by Glenn Lukos Associates in October and November 2020 for the Temescal Valley Commerce Center Project Site (Project Site). Specifically, the following report presents existing conditions, impact assessment and proposed best management practices to ensure compliance and consistency with MSHCP goals and objectives of the Reserve System.

2.1. Project Site 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 south and southeast 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 Relationship 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 County of Riverside will condition the project to convey the proposed conservation area to the RCA prior to any project ground disturbance.

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 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

MSHCP Consistency Analysis - HANS 190024
Temescal Valley Commerce Project Site

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not to scale

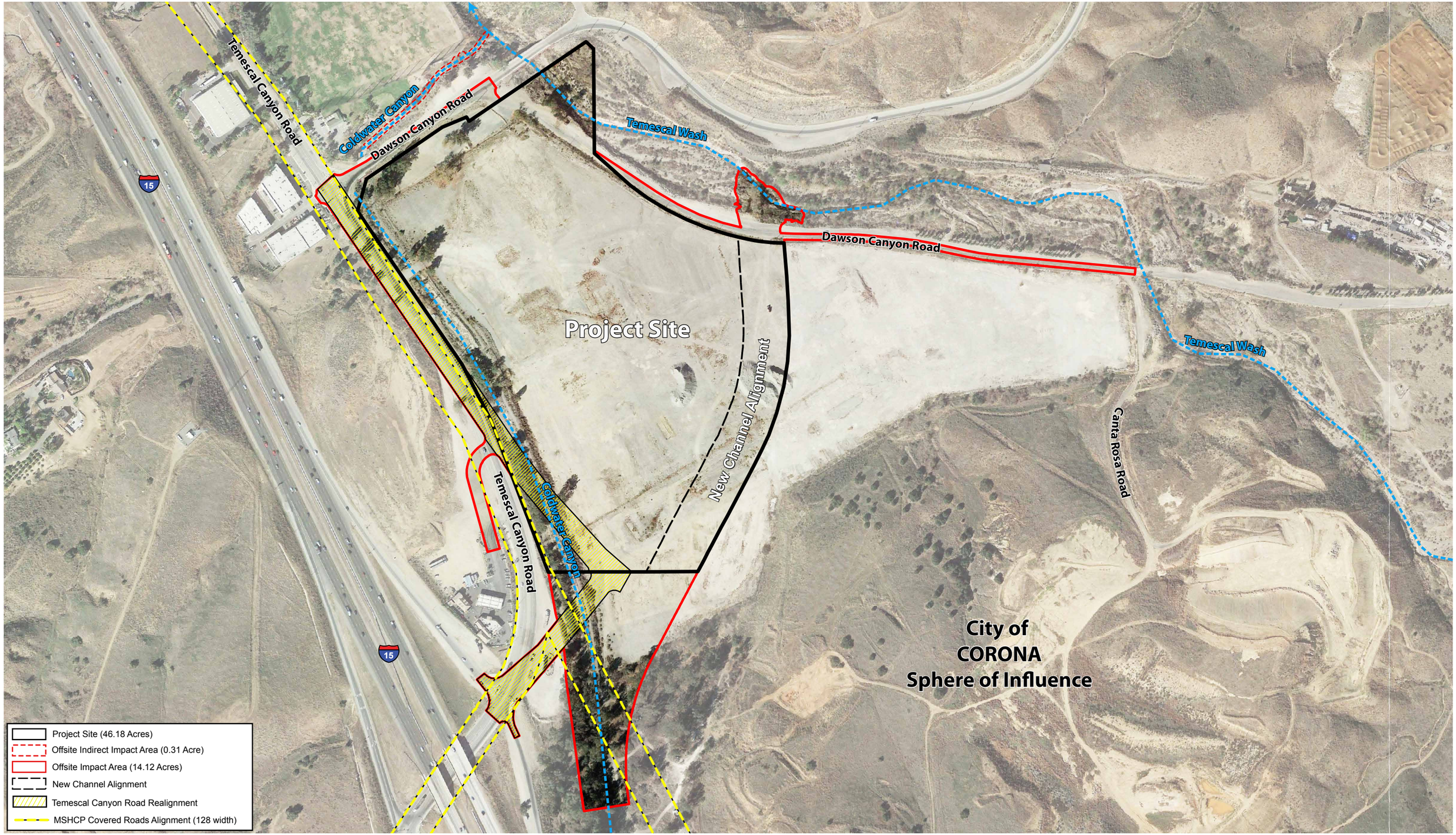

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Figure 2 - Project Site Map

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Temescal Valley Commerce Project Site

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1 inch = 350 feet

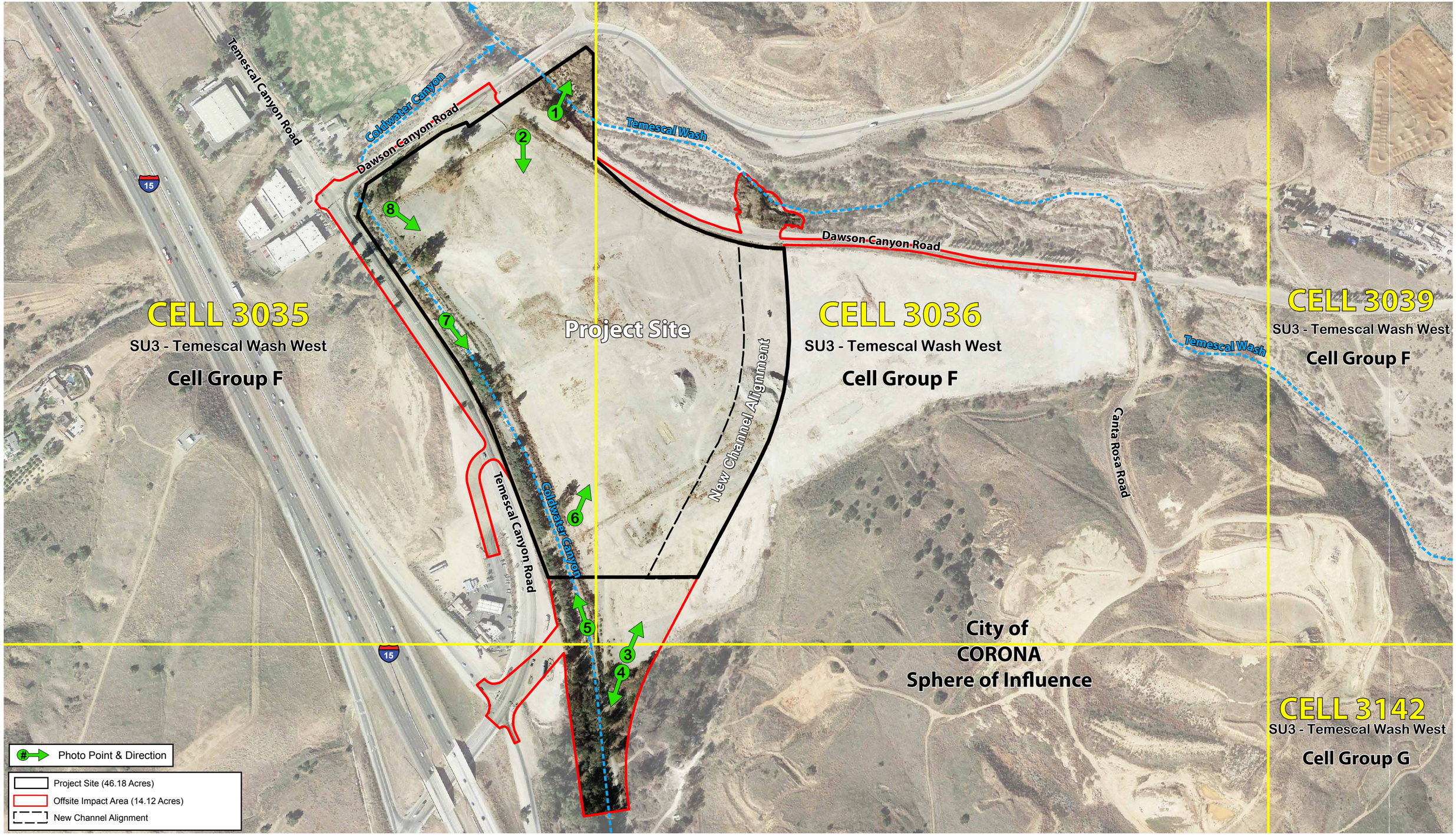

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Figure 3 - MSHCP Criteria Area and Photographic Key Map

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Temescal Valley Commerce Center Project Site

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1 inch = 350 feet

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 channel will be natural-bottom and outfall to Temescal Wash. The Riverside County Flood Control and Water Conservation District will maintain the channel and therefore, no habitat restoration activities are proposed. 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 in 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 are no areas consisting of riparian alliances with a mix of coastal sage scrub species, limited amounts of scalebroom and mulefat. 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.

A total of 58.95 acres of vegetation communities will be directly impacted as a result of project implementation. Specifically, a total of 53.72-acres of permanent and 0.23-acre of temporary impacts (53.95-acres) within Cell Group F primarily to disturbed habitats would occur as a result of project implementation as outlined in Table 1, *Vegetation Community and Cell Group (CG) F Impacts.*

Table 1. Vegetation Community and Cell Group (CG) F Impacts

Vegetation Type	Acres CG F (onsite)	Acres CG F (offsite)	Acres (offsite)	TOTAL Project Site Acres	Acres Impacts CG F (onsite/ offsite)	TOTAL Impacts	Dedicated Conserved Land
Disturbed Developed	37.41	7.08	2.63	47.12	44.44	47.07	0.05
Disturbed Riversidean Sage Scrub	2.87	0.72	0.00	3.59	3.59	3.59	0.00
Disturbed Riversidean Alluvial Fan Sage Scrub	2.23	0.28	0.19	2.70	2.51	2.70	0.00
Riversidean Alluvial Fan Sage Scrub	0.64	0.13	0.00	0.77	0.13	0.13	0.64
Ornamental & Native Trees	1.31	0.37	1.84	3.52	1.56	3.4	0.12
Coldwater Canyon	1.18	0.17	0.34	1.69	1.35	1.69	0.00
Temescal Wash	0.54	0.1	0.00	0.64	0.10	0.1	0.54
Black Willow Forest	0.00	0.17	0.00	0.17	0.17	0.17	0.00
Cottonwood	0.00	0.07	0.00	0.07	0.07	0.07	0.00
Mule Fat Scrub	0.00	0.03	0.00	0.03	0.03	0.03	0.00
TOTALS	**46.18**	**9.12**	**5.00**	**60.30**	**53.95**	**58.95**	**1.35**

Source: Cadre Environmental 2021

2.2. Covered Roads

The project proposes improvements and the realignment of a single covered road, Temescal Canyon Road as shown in Figure 2, *Project Site Map*. As stated in the MSHCP Section 7.51"

"*The specific location for the planned roads, bridges and interchanges depicted on Figure 7-1 are not exact; the ultimate alignment and design will be determined during project level engineering and approval for the alignment which will include appropriate environmental review pursuant to CEQA. The ultimate alignment and design of the facility will be subject to the following design, siting and construction guidelines.*

- *Planned roads will be located in the least environmentally sensitive location Feasible, including disturbed and developed areas or areas that have been previously altered. Alignments will follow existing roads, easements, right-of-ways, and disturbed areas, as appropriate to minimize habitat fragmentation.*

- *Planned roads will avoid, to the greatest extent Feasible, impacts to Covered Species and wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a federal 404 and /or state 1600 permit.*

- *Design of planned roads will consider wildlife movement requirements, as further outlined below under Guidelines for Construction of Wildlife Corridors.*

- *Narrow Endemic Plant Species will be avoided; if avoidance is not Feasible, then mitigation as described in the Narrow Endemics Plant Policy will be implemented.*

- *Any construction, maintenance and operation activities that involves clearing of natural vegetation will be conducted outside the active breeding season (March 1 through June 30).*

- *Prior to design and construction of transportation facilities, biological surveys will be conducted within the study area for the facility including vegetation mapping and species surveys and/or wetland delineations. The appropriate biological surveys to be conducted will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to MSHCP Conservation Area resources in conjunction with project siting, design, construction and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of Feasible recommendations*." (MSHCP 2004, Section 7.51)

The proposed realignment of Temescal Canyon Road would follow the proposed realignment and widening of Coldwater Canyon to its original drainage pattern. Therefore, the realignment of Temescal Canyon Road would occur northwest of the future

Coldwater Canyon location and would not include the construction of a wildlife crossing as defined in Section 7.52 and 7.53. No covered species, wetlands or narrow endemic plants would be impacted as a result of the proposed action. The proposed action is not located within or adjacent to Temescal Wash.

The proposed 100-foot wide realignment of Temescal Canyon Road would partially extend outside of the MSHCP Covered Roads GIS layer as shown in Figure 2, *Project Site Map*. However, all impacts associated with construction and completion of the realignment would occur within a 128-foot wide or less right-of-way (cut and fill, roadway, median and shoulder). The realignment of Temescal Canyon Road through the project site was required by the County of Riverside to correspond with the approved Serrano Commerce Center Specific Plan No. 353 which incorporated the future Temescal Canyon Road alignment extending east of the Project Site. The proposed action would not directly or indirectly impact current or proposed conservation lands.

2.3. Covered Public Access Activities

The proposed project does not include covered public access activities including but not limited to construction or improvements to trails or other public access facilities.

2.4. General Setting

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 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, and SgC – San Emigdio loam, 2 to 8 percent slopes.

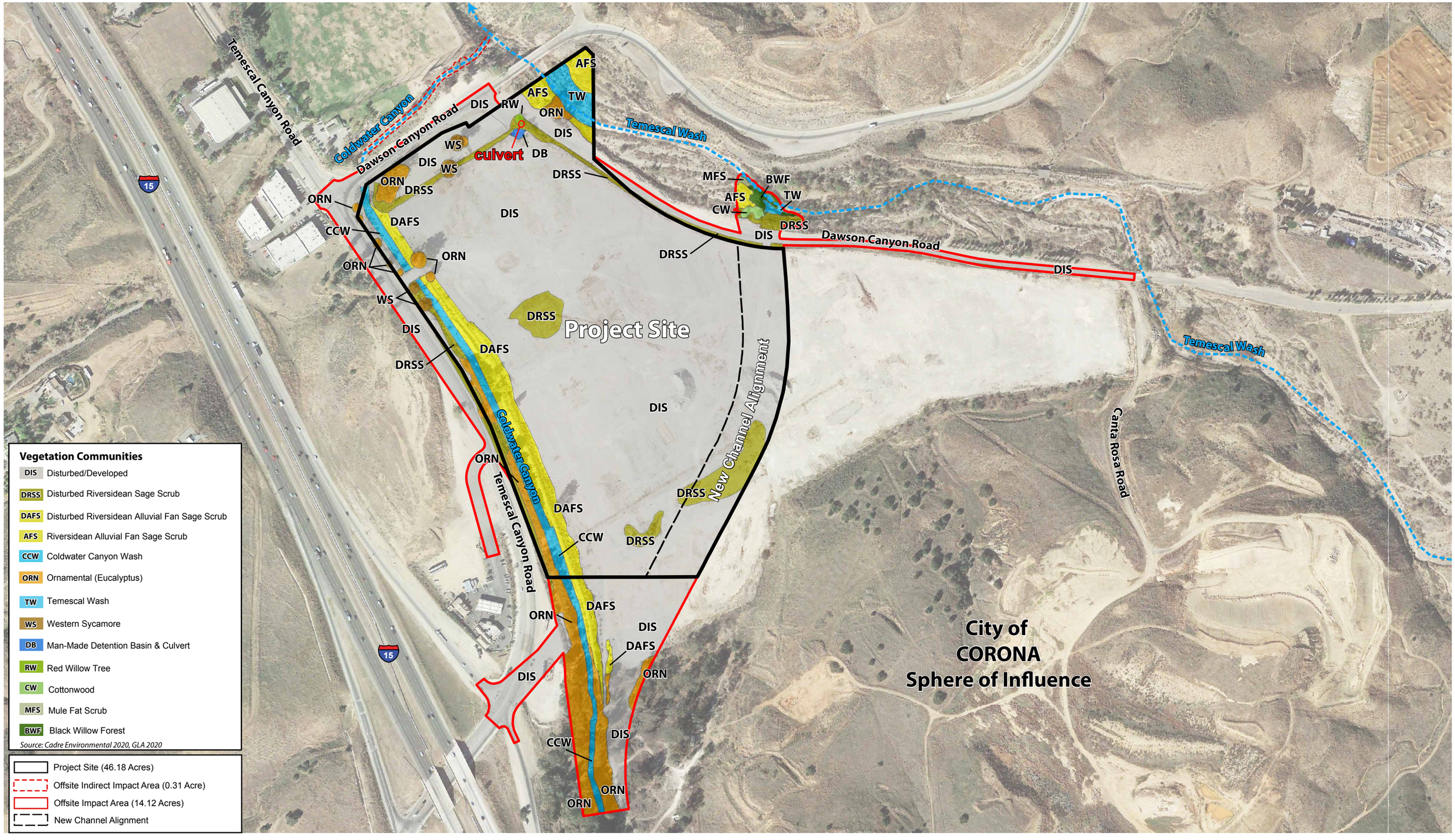

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Figure 4 - Vegetation Communities Map

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1 inch = 350 feet

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
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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
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Temescal Valley Commerce Center Project Site

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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

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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

MSHCP Consistency Analysis - HANS 190024
Temescal Valley Commerce Center Project Site

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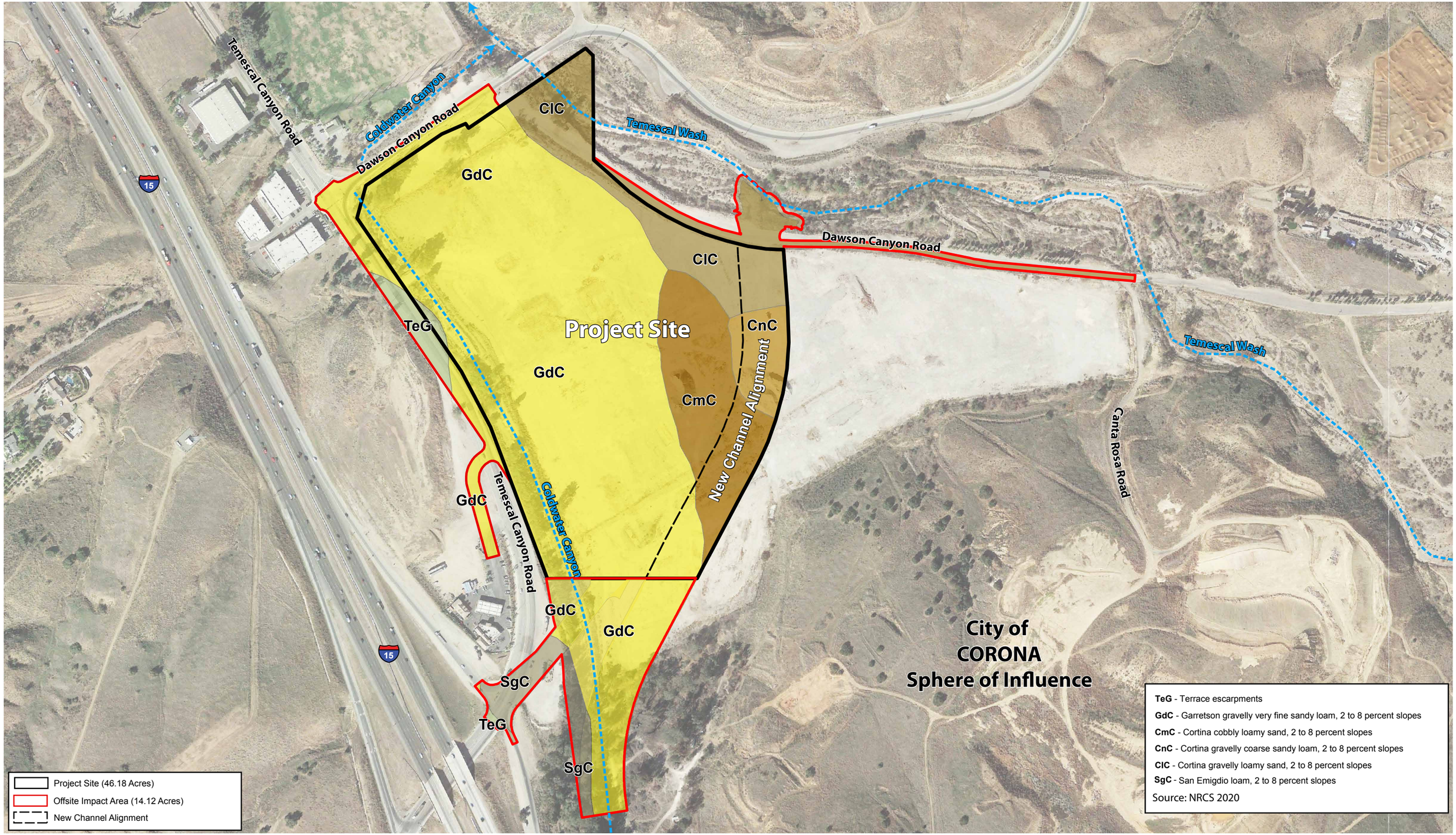

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Figure 9 - Soils Association Map

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3. RESERVE ASSEMBLY ANALYSIS

The Temescal Valley Commerce Center Project Site 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 a total of 53.72-acres of permanent and 0.23-acre of temporary impacts (53.95-acres) within Cell Group F primarily to disturbed primarily to disturbed habitats, as shown in Figure 10, *Vegetation Communities Impact Map.* As shown in Figure 11, *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*

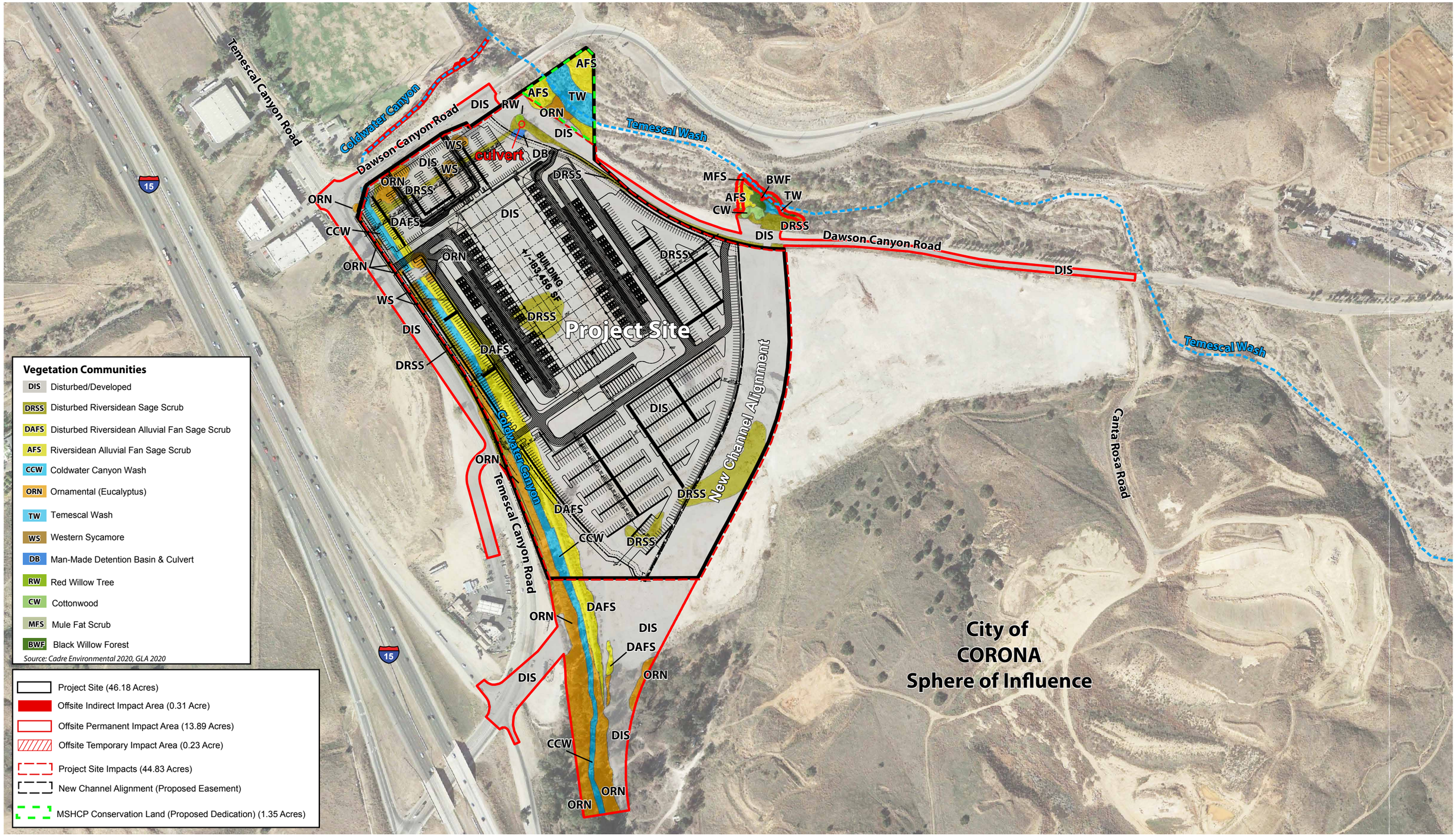
the table below, and also provides for movement of species. The Lake Mathews/Estelle Mountain Extension supports populations of coastal California gnatcatcher; thus high quality, connected Habitat must be maintained in this area which is surrounded by city (Corona) and community Development planned land 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.

A Habitat Evaluation and Acquisition Negotiation Strategy determination issued by the County of Riverside Environmental Programs Division identified 1.35 acres of the Project Site as Proposed MSHCP Conservation Area, HANS 190024 (Temescal Wash floodprone area). All 1.35 acres of the Project Site located within the Temescal Wash floodprone area and Proposed as MSHCP Conservation Area will be dedicated as conserved land, As shown in Figure 11, *MSHCP Reserve Assembly Analysis Map*. The County of Riverside will condition the project to convey the proposed conservation area to the RCA prior to any project ground disturbance.

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.

Potential habitat for ten (10) MSHCP planning species, smooth tarplant (*Centromadia pungens* ssp. *laevis*), Cooper's hawk, (*Accipiter cooperii*), Southern California rufous-crowned sparrow, (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Amphispiza belli belli*), white-tailed kite, (*Elanus leucurus*), loggerhead shrike, (*Lanius ludovicianus*), coastal California gnatcatcher, (*Polioptila californica californica*), yellow warbler (*Setophaga petechia*) , bobcat (*Lynx rufus*) and mountain lion, (*Puma concolor*) is located onsite primarily within Temescal Wash, as outlined in Table 2, *Potential Planning Species Assessment*.



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 10 - Vegetation Communities Impact Map

MSHCP Consistency Analysis - HANS 190024
Temescal Valley Commerce Center Project Site

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1 inch = 350 feet

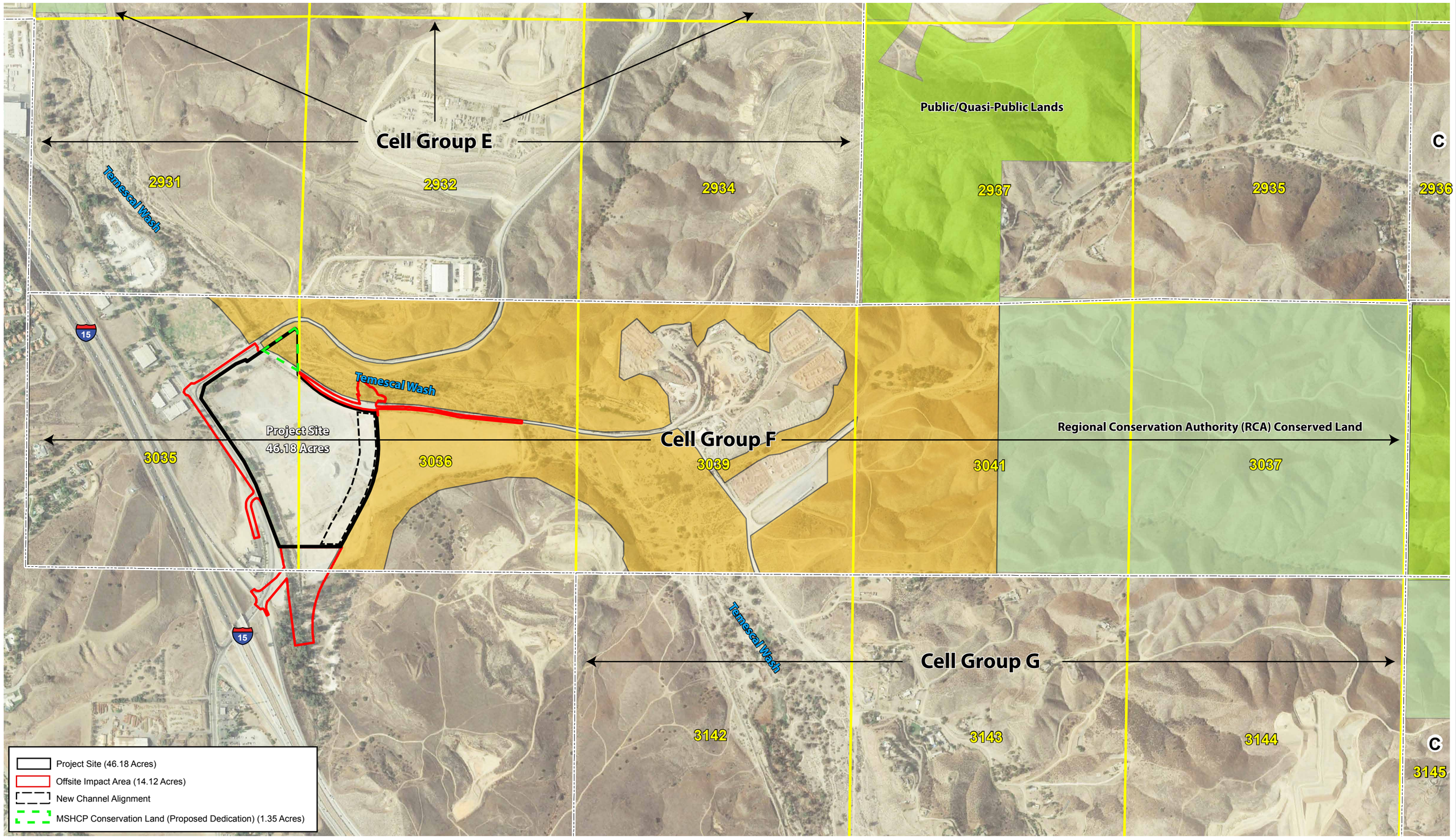

Figure 11 - MSHCP Reserve Assembly Analysis Map

MSHCP Consistency Analysis - HANS 190024
Temescal Valley Commerce Project Site

CADRE Environmental

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1 inch = 850 feet

Table 2.
Potential Planning Species Assessment

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MSHCP Planning Species Criteria Areas 3035 and 3036, Cell Group F		
PLANTS		
Munz's onion (*Allium munzii*) 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.	No Potential - 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. (Glenn Lukos Associations 2021)
Smooth tarplant (*Centromadia pungens* ssp. *laevis*) CRPR 1B.1 MSHCP Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, and disturbed habitats.	Limited Potential Not Detected - Limited potential to occur onsite although not observed during general biological and focused surveys (Glenn Lukos Associations 2021)
Peninsular spine flower (*Chorizanthe leptotheca*) CRPR 4.2	Annual herb generally blooming from May to August in chaparral, coastal scrub and lower montane coniferous forest in association with alluvial fan and granitic substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area. (Glenn Lukos Associations 2021)
Long-spined spine flower (*Chorizanthe polygonoides* var. *longispina*) 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 - No potential to occur near due to lack of suitable soils. (Glenn Lukos Associations 2021)
Small-flowered morning-glory (*Convolvulus simulans*) 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 - No potential to occur near due to lack of suitable soils. (Glenn Lukos Associations 2021)

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Many-stemmed dudleya (*Dudleya multicaulis*) CRPR 1B.2 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	No Potential - 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. (Glenn Lukos Associations 2021)
Palmer's grapplinghook (*Harpagonella palmeri*) 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 - No potential to occur near due to lack of suitable soils. (Glenn Lukos Associations 2021)
Small-flowered microseris (*Microseris douglasii* var. *platycarpha*) CRPR 4.2	Annual herb generally blooming from March to May in cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools in association with clay substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area. (Glenn Lukos Associations 2021)
Coulter's matilija poppy (*Romneya coulteri*) CRPR 4.2	Perennial rhizomatous herb generally blooming from April to July in chaparral, coastal scrub, often in burned areas. (CNPS 2020)	No Potential – Not detected onsite. (Glenn Lukos Associations 2021)
BIRDS		
Cooper's hawk (*Accipiter cooperii*) 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 - Potential nesting habitat is present onsite with mature Eucalyptus woodland (Ornamental) located within Coldwater Canyon.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) 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-	Potential - Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
	associations (Unitt 2004). This species generally breeds on the ground within grassland and scrub communities in the western and central regions of California.	
Bell's sage sparrow *(Amphispiza belli belli)* SSC *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 – The Bell's sage sparrow may occasionally forage onsite within the Riversidean sage scrub.
White-tailed kite (*Elanus leucurus*) 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).	Potential - May occasionally forage onsite within the open disturbed habitats.
Southwestern willow flycatcher (*Empidonax traillii extimus*) 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 – 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).

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Yellow-breasted Chat (*Icteria virens*) SSC MSHCP Covered Species	The yellow-breasted chat is associated with riparian woodland and riparian scrub habitats. (MSHCP 2004)	Present – Detected in offsite impact area within Temescal Wash.
Loggerhead shrike (*Lanius ludovicianus*) 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 - Potential to forage and nest onsite within the open disturbed, Riversidean sage scrub and alluvial fan sage scrub habitat types.
Downy woodpecker (*Picoides pubescens*)	Potential habitat for the downy woodpecker includes riparian scrub, woodland, and forest, and oak woodland and forest habitat in all Bioregions within the Plan Area (MSHCP 2004).	No Potential – No potential to occur onsite based on a lack of roosting, foraging, and nesting habitat.
Coastal California gnatcatcher (*Polioptila californica californica*) FT/SSC MSHCP Covered Species	The California gnatcatcher is a non-migratory bird that primarily occurs within sage scrub habitats in coastal southern California dominated by California sagebrush, and California buckwheat.	Potential - Potential to occur onsite within the Riversidean sage scrub and alluvial fan sage scrub habitat types.
Yellow warbler (*Setophaga petechia*) SSC MSHCP Covered Species	Habitat characteristics of the yellow warbler are well known to include riparian scrub and forest and woodland. (MSHCP 2004)	Present - Detected onsite within Temescal Wash.
Least Bell's vireo (*Vireo bellii pusillus*) 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 offsite Temescal Wash impact area during protocol USFWS surveys conducted during the spring of 2021. The least Bell's vireo was also documented within 500 feet of the Project Site in 2005 within Temescal Wash (USFWS 2020).

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MAMMALS		
Stephens' kangaroo rat (*Dipodomys stephensi*) 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).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Bobcat *(Lynx rufus)* *MSHCP Covered Species*	The bobcat requires large expanses of relatively undisturbed brushy and rocky habitats near springs or other perennial water sources.	Potential – The bobcat may occasionally utilize the Project Site for foraging and movement. However, the species is primary expected to occur within and immediately adjacent to Temescal Wash.
Mountain lion (*Puma concolor*) 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)	Potential – The bobcat may occasionally utilize the Project Site for foraging and movement. However, the species is primary expected to occur within and immediately adjacent to Temescal Wash.

California Native Plant Society (CNPS): California Rare Plant Rank (CRPR)

CRPR 1A – plants presumed extinct in California
CRPR 1B – plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 2A – plants presumed extirpated in California but common elsewhere
CRPR 2B – plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3 – plants about which we need more information, a review list
CRPR 4 – plants of limited distribution, a watch list
.1 – Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Federal (USFWS) Protection and Classification
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate for Listing

State (CDFW) Protection and Classification
SE – State Endangered
ST – State Threatened
SSC – State Species of Special Concern
CWL – California Watch List
SPF – State Fully Protected

Permanent impacts to 53.95 acres (80%) of primarily disturbed/developed lands within Cell Group F in a region not identified for conservation in the MSHCP, would not represent a significant impact to MSHCP Planning Species. As referenced in HANS 190024, all 1.35 acres of the Project Site located within the Temescal Wash floodprone area and identified as MSHCP Proposed Conservation Area will be dedicated as conserved land. The conserved lands represent suitable habitat for several MSHCP planning species as listed. The proposed project would not conflict with the conservation goals for these species as discussed in Section 5, PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (SECTION 6.1.2), Section 6, PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3) and Section 7, ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2) in the following report.

3.1. Public Quasi-Public Lands in Reserve Assembly Analysis

3.1.1. Public Quasi-Public Lands in Reserve Assembly Analysis

The Project Site is not located within or adjacent to Public Quasi-Public (PQP) lands. No direct or indirect impacts will occur to PQP lands as a result of project initiation.

3.1.2. Project Impacts to Public Quasi-Public Lands

The Project Site is not located within or adjacent to PQP lands. No direct or indirect impacts will occur to PQP lands as a result of project initiation.

4. VEGETATION MAPPING

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 as illustrated in Figure 4, *Vegetation Communities Map* and Figures 5 to 8, *Current Project Site Photographs*.

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*).

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 dracunculus*), 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*).

Representative distribution and photographs of these habitat types are illustrated in Figure 4, *Vegetation Communities Map* and Figures 5 to 8, *Current Project Site Photographs*.

5. PROTECTION OF SPECIES ASSOCIATED WITH RIPARIAN/RIVERINE AREAS AND VERNAL POOLS (SECTION 6.1.2)

5.1. Riparian/Riverine

5.1.1. Methods

A formal jurisdictional delineation and MSHCP Section 6.1.2 assessment was conducted by Glenn Lukos Associates in October and November 2020 (Glenn Lukos Associates 2020). 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.

5.1.2. Existing Conditions and Results

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.

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 3, *MSHCP Section 6.1.2 Riparian/Riverine Resources*, and as shown in Figure 12, *MSHCP Section 6.1.2 Riparian/Riverine 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.

Table 3.
MSHCP Section 6.1.2 Riparian/Riverine 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 2020

For purposes of assessing existing conditions and impacts, all resources delineated as CDFW regulated were characterized as MSHCP Section 6.1.2 Riparian and Riverine resources.

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 1.22 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 dracunculus*), 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 dracunculus*, 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.

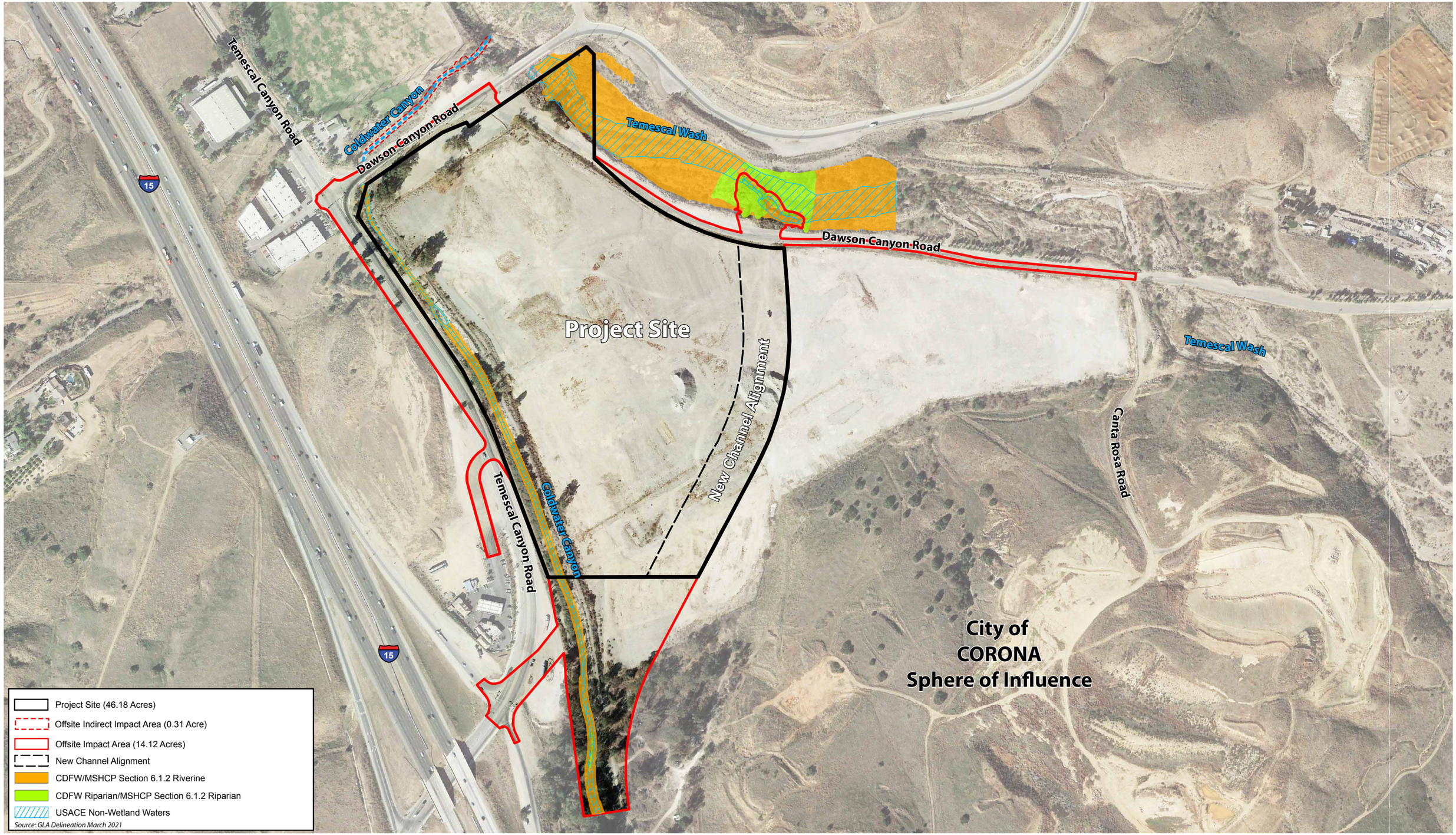
As noted above, the area where Coldwater Creek will discharge to the site includes a well-defined low-flow channel and a terrace which is well above the low-flow channel, with a steep slope to the top of the Temescal Wash Bank. The low-flow channel in unvegetated with an algal mat and areas with adjacent mulefat scrub dominated by mule fat (*Baccharis salicifolia*, FAC) and Goodding's black willow forest dominated by Gooddingi'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.

5.1.3. Impacts

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"*.

A total of 2.54-acres of CDFW/MSHCP Section 6.1.2 Riparian and Riverine resources (2.52-acre riverine, 0.02-acre riparian) within Cold Water Canyon will be permanently impacted as a result of project initiation as summarized in Tables 4, *MSHCP Section 6.1.2 Riparian/Riverine Resources Impacts*, and shown in Figure 13, *MSHCP Section 6.1.2 Riparian/Riverine Impact Map*. 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.

A total of 0.39-acre of permanent and 0.23-acre of temporary CDFW/MSHCP Section 6.1.2 Riverine resources within Temescal Wash will be impacted as a result of project initiation as summarized in Tables 4, *MSHCP Section 6.1.2 Riparian/Riverine Resources Impacts*, and shown in Figure 13, *MSHCP Section 6.1.2 Riparian/Riverine Impact Map*. A total of 0.17-acre of permanent and 0.10-acre of temporary CDFW/MSHCP Section 6.1.2 Riparian resources within Temescal Wash (0.27-acre total) will be impacted as a result of project initiation. This riparian habitat was also documented as occupied by the least Bell's vireo.



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 12 - Jurisdictional Resources Map

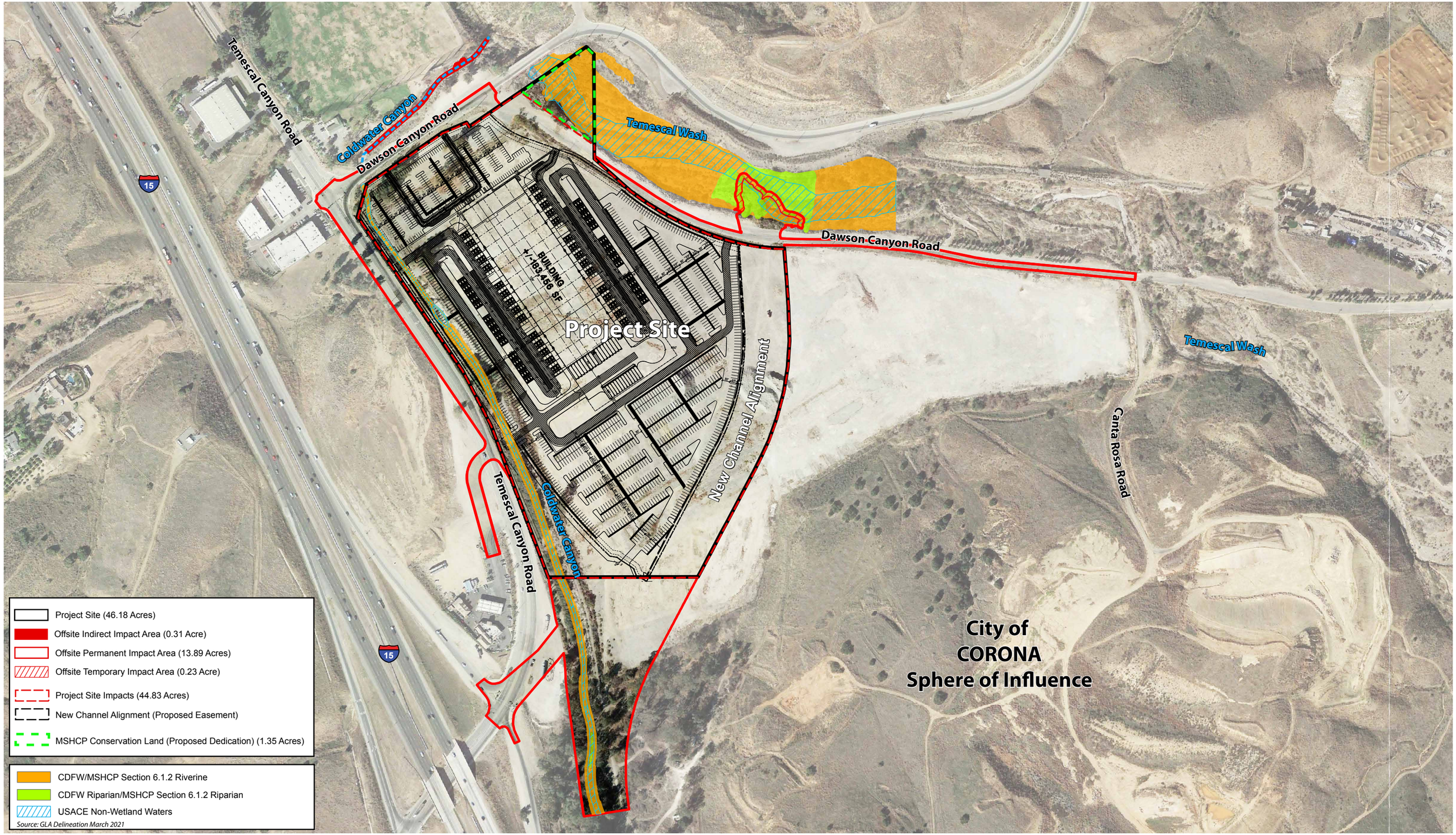
MSHCP Consistency Analysis - HANS 190024

Temescal Valley Commerce Project Site

CADRE Environmental

N

1 inch = 350 feet



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 - Jurisdictional Resources Impact Map

MSHCP Consistency Analysis - HANS 190024

Temescal Valley Commerce Project Site

CADRE Environmental

N

1 inch = 350 feet

Table 4.
MSHCP Section 6.1.2 Riparian/Riverine Resources Impacts

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 2020 Source:

Permanent impacts to 2.93-acre (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/Riverine resources (3.16-acres total) will be mitigated following review and approval of a MSHCP DBESP by the County of Riverside EPD Regional Conservation Authority (RCA) and wildlife agencies.

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 Temescal Wash

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 located within Temescal Wash, the 7.70-acre of Riversidean alluvial fan sage scrub 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 Riversidean alluvial fan sage scrub.

All offsite permanent (0.05-acre) and temporary (0.08-acre) impacts to Riversidean alluvial fan sage scrub (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 Riversidean alluvial fan sage scrub in the temporary offsite impact area as well as disturbed habitats within Temescal Wash.

5.1.4. Mitigation

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 Riversidean alluvial fan sage scrub (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 Riversidean alluvial fan sage scrub in the temporary offsite impact area as well as disturbed habitats within Temescal Wash.

5.2. Vernal Pools

5.2.1. Methods

The Project Site was assessed on May 21st, 2019 and September 14th, 2020 to determine the presence/absence and extent of MSHCP vernal pool resources in accordance with the RCIP definition (Section 6.1.2, Volume I, Final MSHCP). The assessment included a review of historic aerials and soils maps within and immediately adjacent to the Project Site.

5.2.2. Existing Conditions and Results

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 (*Branchinecta lindahli*), 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.

5.2.3. Impacts

No Impact.

5.2.4. Mitigation

No Mitigation Proposed.

5.3. Fairy Shrimp

5.3.1. Methods

The Project Site was assessed on May 21st, 2019 to determine the presence/absence and extent of vernal pool (fairy shrimp habitat). The assessment included a review of historic aerials and soils maps within and immediately adjacent to the Project Site.

5.3.2. Existing Conditions and Results

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.

5.3.3. Impacts

No Impact.

5.3.4. Mitigation

No Mitigation Proposed.

5.4. Riparian Birds

5.4.1. Methods

The Project Site was assessed on May 21st, 2019 during which time all vegetation communities were mapped. 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.

5.4.2. Existing Conditions and Results

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). 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.

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. 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.

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 14, *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, as shown in Figure 14, *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).

5.4.3. Impacts

A total of 0.27-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (black willow and mule fat scrub) will occur within the Temescal Wash offsite area. All riparian vegetation (0.27-acre) within the offsite impact area was considered occupied or suitable habitat for the least Bell's vireo.

5.4.4. Mitigation

As outlined below, the MSHCP identifies four (4) objectives (presented as *italics/underlined*) for the protection of least Bell's vireo habitat located within the riparian corridor, 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.

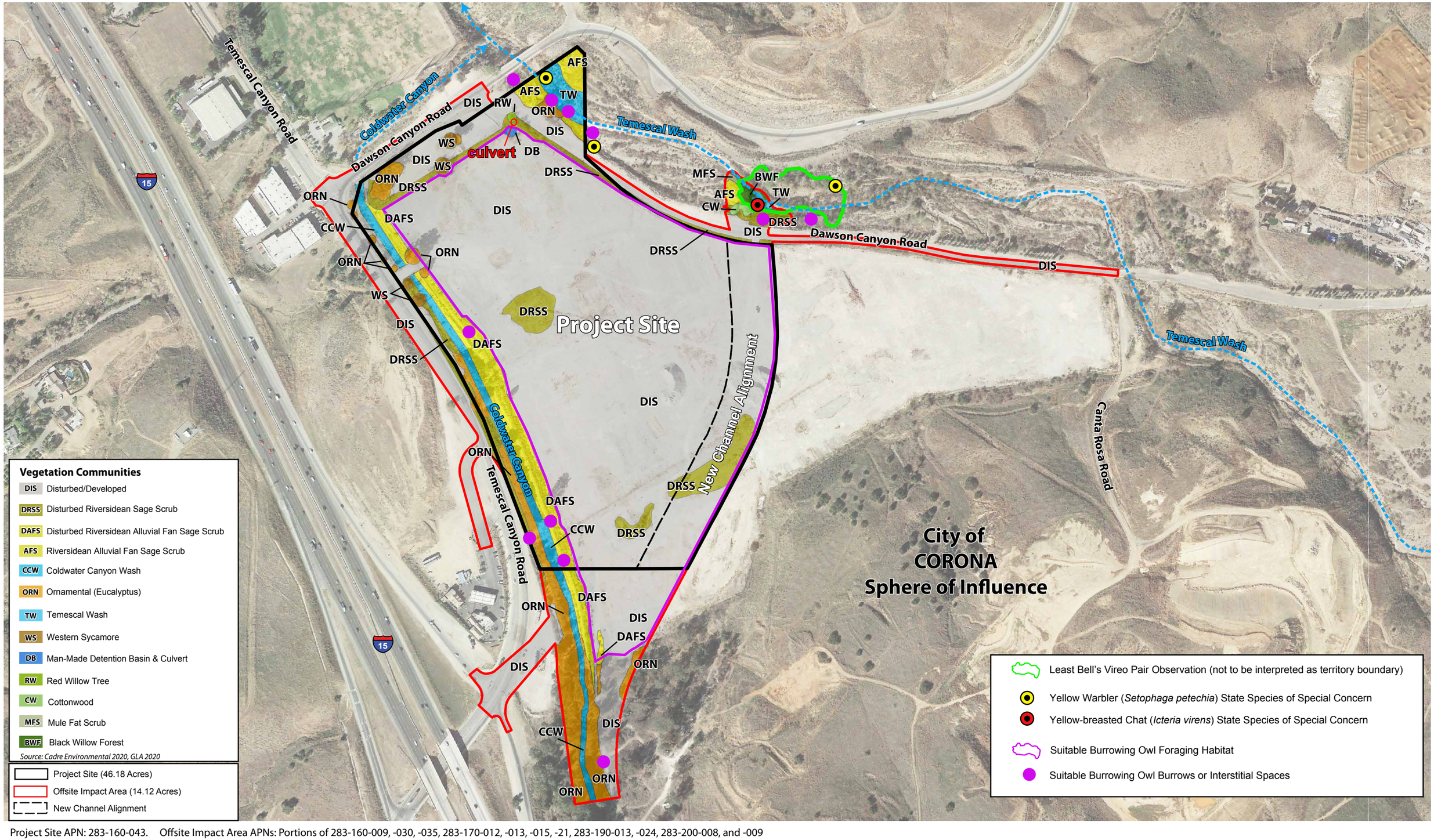
4. "*Within the MSHCP Conservation Area, maintain (once every 3 years) the continued use of, and successful reproduction at 75% percent of known vireo occupied habitat (including any nesting locations identified in the MSHCP Conservation Area in the future)*" (MSHCP 2004). Based on recent as well as 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 Urban/Wildlands Interface Guidelines presented in Section 6.1.4 of the MSHCP and Section 9 of this report.

Construction activities conducted during the least Bell's vireo breeding season will be monitored by biologist to ensure no direct and/or indirect impacts occur to the species in the vicinity of the project including noise monitoring to ensure that noise levels do not exceed 60 dB within 300 feet of least Bell's vireo habitat during the nesting period.

Annual monitoring of least Bell's vireo status following reestablishment of riparian habitat within Temescal Wash will be conducted for at least three (3) years or until the species is detected.

Following reestablishment of riparian habitat within Temescal Wash, a lot line adjustment of the restored habitat will be processed, approved and dedicated as conservation, fee title to the RCA.



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 - Sensitive Species Observation Map

MSHCP Consistency Analysis - HANS 190024
Temescal Valley Commerce Project Site

CADRE Environmental

N
1 inch = 350 feet

5.5. Other Section 6.1.2 Species

6. PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3)

The Project Site occurs partially within a predetermined Survey Area for nine (9) MSHCP narrow endemic plant species including (RCA GIS Data Downloads 2020).

- 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].

6.1. Methods

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).

Existing biological resources within and adjacent to the Project Site were initially investigated through a review of pertinent literature and online data. The California Natural Diversity Database (CNDDB 2020), and CNPS (2020). In addition, soil, local floras, and consultation with local experts were utilized in the identification of species, soils, or habitats that could support the target MSHCP sensitive plants within or adjacent to the Project Site. These and other references are listed below and in References.

Prior to conducting fieldwork, a thorough archival review was conducted using the following baseline resources:

- California Native Plant Society 8th Inventory Online (2020);
- California Natural Diversity Data Base for the USGS 7.5' Lake Mathews Quadrangle (CNDDB 2020);
- Soil Survey of Western Riverside Area (Knecht 1971; USDA-NRCS 2020);
- Vegetation Alliances of Western Riverside County, California (Klein and Evens 2005);
- Vascular Flora of Western Riverside County (Roberts et al. 2004); and

- Reports prepared by the Regional Conservation Authority, Western Riverside County (http://www.wrc-rca.org/about-rca/monitoring/monitoring-surveys/).

6.2. Existing Conditions and Results

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 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 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. 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 Review[1] 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.[2] The habitat that supports most occurrences of this species has generally been

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

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

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.

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 pools[3], while the Jepson Herbarium reports the species from "moist places, drying riverbeds".[4] 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.
Following the habitat assessment and review of species distribution and habitat requirements, no MSHCP Narrow Endemic Plant Species are expected to occur within the Project Site impact area as shown in Table 5, *Potential MSHCP Narrow Endemic Plant Assessment* (Glenn Lukos Associates 2021a)

[3] http://www.rareplants.cnps.org/detail/1520.html
[4] http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=79193

Table 5.
Potential MSHCP Narrow Endemic Plant Assessment

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MSHCP Narrow Endemic Species		
California Orcutt grass (*Orcuttia californica*) FE/SE CRPR 1B.1 MSHCP Covered	Vernal pools.	No Potential – Not expected to occur on site due to the lack of suitable vernal pool habitat. (Glenn Lukos Associates 2021a)
Hammitt's clay-cress (*Sibaropsis hammittii*) CRPR 1B.2 MSHCP Covered	Occurs within chaparral and grassland habitats in association with clay substrates.	No Potential – 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. (Glenn Lukos Associates 2021a)
Many-stemmed dudleya (*Dudleya multicaulis*) CRPR 1B.2 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	No Potential – 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. (Glenn Lukos Associates 2021a)
Munz's onion (*Allium munzii*) 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.	No Potential – 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. (Glenn Lukos Associates 2021a)
San Diego ambrosia (*Ambrosia pumila*) FE CRPR 1B.1 MSHCP Covered	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	No Potential – Not expected to occur on site. Study Area is located north of known range for the species and not detected during focused surveys. (Glenn Lukos Associates 2021a)

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
San Miguel savory (*Clinopodium chandleri* (formerly *Satureja chandleri*)) 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 – No potential to occur on site due to lack of suitable habitat. (Glenn Lukos Associates 2021a)
Slender-horned spineflower (*Dodecahema leptoceras*) FT CRPR 1B.1 MSHCP Covered	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	No Potential – Not expected to occur due to lack of suitable habitat. (Glenn Lukos Associates 2021a)
Spreading navarretia (*Navarretia fossalis*) FT CRPR 1B.1 MSHCP Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	No Potential – Not expected to occur on site due to the lack of suitable vernal pool habitat. (Glenn Lukos Associates 2021a)
Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*) CRPR 2.1 MSHCP Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	No Potential – Not expected to occur on site due to the lack of suitable vernal pool or seasonal marsh habitat. (Glenn Lukos Associates 2021a)

California Native Plant Society (CNPS): California Rare Plant Rank (CRPR)
CRPR 1A – plants presumed extinct in California
CRPR 1B – plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 2A – plants presumed extirpated in California but common elsewhere
CRPR 2B – plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3 – plants about which we need more information, a review list
CRPR 4 – plants of limited distribution, a watch list
.1 – Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Federal (USFWS) Protection and Classification
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate for Listing

State (CDFW) Protection and Classification
SE – State Endangered
ST – State Threatened

6.3. Impacts

No Impact.

6.4. Mitigation

No Mitigation Proposed.

7. ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2)

7.1. Criteria Area Plant Species

The Project Site occurs completely within an MSHCP Criteria Area Plant Survey Area for seven (7) species including:

- 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].

Following the habitat assessment and review of species distribution and habitat requirements, a single MSHCP criteria area plant species has potential to occur within the Project Site impact area, smooth tarplant, as shown in Table 6, *Potential MSHCP Criteria Area Plant Assessment* (Glenn Lukos Associates 2021a).

Table 6.
Potential MSHCP Criteria Area Plant Assessment

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MSHCP Criteria Area Species		
Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) CRPR 1B.1 MSHCP Covered	Playas, vernal pools, marshes and swamps (coastal salt).	No Potential – 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. (Glenn Lukos Associates 2021a)
Davidson's saltscale (*Atriplex serenana* var. *davidsonii*) CRPR 1B.2 MSHCP Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub and alkali sink scrub.	No Potential – Not expected to occur on site due to a lack of suitable habitat, including suitable clay and clay associated substrates, in conjunction with historic

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
		mining disturbance on the Site. (Glenn Lukos Associates 2021a)
Little mousetail (*Myosurus minimus* ssp. *apus*) 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.	No Potential – 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. (Glenn Lukos Associates 2021a)
Parish's brittlescale (*Atriplex parishii*) 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.	No Potential – Not expected to occur onsite based on the absence of suitable alkali clay soils, associated habitats and historic disturbed conditions of the Site. (Glenn Lukos Associates 2021a)
Round-leaved filaree (*Erodium macrophyllum*) 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.	No Potential – 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. (Glenn Lukos Associates 2021a)
Smooth tarplant (*Centromadia pungens* ssp. *laevis*) CRPR 1B.1 MSHCP Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, and disturbed habitats.	Limited Potential Not Detected - Limited potential to occur onsite although not observed during general biological and focused surveys (Glenn Lukos Associations 2021a)
Thread-leaved brodiaea (*Brodiaea filifolia*) 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.	No Potential – 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. (Glenn Lukos Associates 2021a)

Species Name (*Scientific Name*) Status	Habitat Description	Comments

California Native Plant Society (CNPS): California Rare Plant Rank (CRPR)
CRPR 1A – plants presumed extinct in California
CRPR 1B – plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 2A – plants presumed extirpated in California but common elsewhere
CRPR 2B – plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3 – plants about which we need more information, a review list
CRPR 4 – plants of limited distribution, a watch list
.1 – Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Federal (USFWS) Protection and Classification
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate for Listing

State (CDFW) Protection and Classification
SE – State Endangered
ST – State Threatened

7.2. Amphibians

7.2.1. Methods

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

7.2.2. Existing Conditions and Results

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

7.2.3. Impacts

No Impact.

7.2.4. Mitigation

No Mitigation Proposed.

7.3. Burrowing Owl

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 as shown in Figure 14, *Sensitive Species Observation Map*. Therefore, focused surveys were conducted by Cadre Environmental during the spring and summer of 2019 and 2021.

7.3.1. Methods

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.

<u>Step I – Habitat Assessment</u>

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.

7.3.2. Existing Conditions and Results

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 and 2021. 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 20120, 2021).

7.3.3. Impacts

No Impact.

7.3.4. Mitigation

Due to the presence of potentially suitable habitat, a 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (including vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, grading, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies, and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the site since it was last disturbed. If burrowing owl is found, the same coordination described above will be necessary.

Following submittal, review and approval of the 30-day burrowing owl preconstruction survey report by the County of Riverside EPD and compliance with all species-specific conservation goals, if detected within or adjacent to the Project Site, the project will be consistent with MSHCP Section 6.3.2.

7.4. Mammals

7.4.1. Methods

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

7.4.2. Existing Conditions and Results

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

7.4.3. Impacts

No Impact.

7.4.4. Mitigation

No Mitigation Proposed.

8. INFORMATION ON OTHER SPECIES

8.1. Delhi Sands Flower Loving Fly

The Project Site is not located within or adjacent to areas mapped as Delhi soils.

8.2. Species Not Adequately Covered

None of the twenty-eight (28) MSHCP species not adequately covered has the potential to occur within the Project Site impact area as presented in Table 7, *Species not Adequately Covered with Potential to Occur on Project Site*.

Table 7.
Species not Adequately Covered with Potential to Occur on Project Site

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
PLANTS		
Beautiful hulsea (*Hulsea vestita* ssp. *callicarpha*) CRPR 4.2	Perennial herb generally blooming from May to October within chaparral and lower montane coniferous forest in association with rocky or gravelly, granitic substrates (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
California bedstraw (*Galium californicum ssp. primum*) CRPR 1B.2	Perennial herb generally blooming from May to July within chaparral and lower montane coniferous forest in association with granitic and sandy substrates (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
California muhly (*Muhlenbergia californica*) CRPR 4.3	Perennial rhizomatous herb generally blooming from June to September within chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps in association with mesic, seeps and streambanks (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Chickweed oxytheca (*Sidotheca caryophylloides*) CRPR 4.3	Annual herb generally blooming from July to October within lower montane coniferous forest in association with sandy substrates. CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Cleveland's bush monkeyflower (*Diplacus clevelandii*) CRPR 4.2	Perennial rhizomatous herb generally blooming from April to July in chaparral, cismontane woodland and lower montane coniferous forest in association with gabbroic, often disturbed areas, openings, rocky. (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Cliff cinquefoil (*Potentilla rimicola*) CRPR 2B.3	Perennial herb generally blooming from July to September in subalpine coniferous forest, upper montane coniferous forest in association with granitic and rocky substrates. (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Coulter's matilija poppy (*Romneya coulteri*) CRPR 4.2	Perennial rhizomatous herb generally blooming from April to July in chaparral, coastal scrub, often in burned areas. (CNPS 2020).	No Potential – Not detected onsite.
Fish's milkwort (*Polygala cornuta* var. *fishiae*) CRPR 4.3	Perennial deciduous shrub generally blooming from May to August in chaparral, cismontane and riparian woodland. (CNPS 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Graceful tarplant (*Holocarpha virgata* ssp. *elongata*) CRPR 4.2	Annual herb generally blooming from May to November in chaparral, cismontane woodland, coastal scrub and valley and foothill grassland. (CNPS 2020) "*Graceful tarplant is known from heavy clay soils around vernal pools and wet meadows (USFWS, unpublished data*). (MSHCP 2004)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Lemon lily (*Lilium parryi*) CRPR 1B.2	Perennial bulbiferous herb generally blooming from July to August in lower montane coniferous forest, meadows and seeps, riparian forest and upper montane coniferous forest in association with mesic substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Mojave tarplant (*Deinandra mohavensis*) CRPR 1B.3	Annual herb generally blooming from June to October in chaparral, coastal scrub and riparian habitat in association with mesic substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Ocellated Humboldt lily (*Lilium humboldtii ssp. ocellatum*) CRPR 4.2	Perennial bulbiferous herb generally blooming from March to August in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest and riparian woodland in openings. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Parry's spine flower (*Chorizanthe parryi* var. *parryi*) CRPR 1B.1	Annual herb generally blooming from April to June in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland in association with sandy or rocky openings. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
Peninsular spine flower (*Chorizanthe leptotheca*) CRPR 4.2	Annual herb generally blooming from May to August in chaparral, coastal scrub and lower montane coniferous forest in association with alluvial fan and granitic substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Plummer's mariposa lily (*Calochortus plummerae*) CRPR 4.2	Perennial bulbiferous herb generally blooming from May to July in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland in association with granitic and rocky substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Rainbow manzanita (*Arctostaphylos rainbowensis*) CRPR 1B.1	Perennial evergreen shrub generally blooming from December to March in chaparral habitat. (CNPS 2020)	No Potential – Not detected onsite.
Shaggy-haired alumroot (*Heuchera hirsutissima*) CRPR 1B.3	Perennial rhizomatous herb generally blooming from May to July in subalpine coniferous forest, upper montane coniferous forest in association with rocky and granitic substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Small-flowered microseris (*Microseris douglasii* var. *platycarpha*) CRPR 4.2	Annual herb generally blooming from March to May in cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools in association with clay substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Sticky-leaved dudleya (*Dudleya viscida*) CRPR 1B.2	Perennial herb generally blooming from May to June in coastal bluff scrub, chaparral, cismontane woodland, coastal scrub in association with rocky substrates. (CNPS 2020)	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
REPTILES		
San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*)	A habitat generalist, found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub. Wooded areas near a stream with rock outcrops, talus or rotting logs that are exposed to the sun are good places to find this snake. California Mountain Kingsnake is not found near the coast, instead preferring coniferous forests and woodlands above 3,000 feet. This species appears to prefer rocky areas, but also is found beneath logs and under bark. (Calheps 2020, SDNHM 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
San Diego mountain kingsnake (*Lampropeltis zonata pulchra*)	A habitat generalist, found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub. Wooded areas near a stream with rock outcrops, talus or rotting logs that are exposed to the sun are good places to find this snake. California Mountain Kingsnake is not found near the coast, instead preferring coniferous forests and woodlands above 3,000 feet. This species appears to prefer rocky areas, but also is found beneath logs and under	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
	bark. (Calheps 2020, SDNHM 2020)	
Southern rubber boa (*Charina umbratica*) ST	Grassland, mountain meadows, chaparral, woodland, along streamsides, deciduous and coniferous forest in the San Bernardino and San Jacinto Mountains.	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
Southern sagebrush lizard (*Sceloporus graciosus vandenburgianus*)	Lives in shrublands such as chaparral, manzanita and ceanothus, as well as open pine and Douglas Fir forests, mainly in the mountains. (CalHerps 2020) The distribution of the Southern Sagebrush Lizard extends in a series of disjunct, montane sky islands from Los Angeles County, southward to the Sierra San Pedro Martir in Baja California. It is commonly found above 5,000 feet in elevation, depending on latitude These lizards enjoy open ground, with clear sunlight and dappled low vegetation. (SDNH 2020).	No Potential – based on a lack of suitable soils and vegetation within the Project Site impact area.
BIRDS		
California spotted owl (*Strix occidentalis occidentalis*) SSC	Primarily occurs in woodlands of oaks and coniferous forests.	No Potential – based on a lack of suitable vegetation within the Project Site impact area.
Grasshopper sparrow (*Ammodramus savannarum*) SSC	Occurs within native and non-native grasslands.	No Potential – based on a lack of suitable vegetation within the Project Site impact area.
Lincoln's sparrow (breeding) (*Melospiza lincolnii*)	Occurs in riparian scrub, riparian edges and mesic weedy areas.	No Potential – based on a lack of suitable vegetation within the Project Site impact area.
Williamson's sapsucker (*Sphyrapicus thyroideus*)	Resident in the San Jacinto Mountains in montane coniferous forest.	No Potential – based on a lack of suitable vegetation within the Project Site impact area.

Species Name (*Scientific Name*) Status	**Habitat Description**	**Comments**
MAMMALS		
San Bernardino flying squirrel (*Glaucomys sabrinus californicus*) SSC	San Bernardino flying squirrel occurs in a range of coniferous and deciduous forest, including riparian forests in the San Gabriel, San Bernardino, and San Jacinto Mountains. The San Bernardino flying squirrel has been reported in mixed conifer forests of Jeffrey pine and white fir. Sumner (1927) reported the habitat as white fir and black oak (*Quercus kelloggii*) woodlands. (CDFG 1998)	No Potential – based on a lack of suitable vegetation within the Project Site impact area.

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

State (CDFW) Protection and Classification
ST – State Threatened
SSC – State Species of Special Concern

9. GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (Section 6.1.4)

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/Vegetation

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.

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 (0.31-acre) 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, the reduction in hydrology (as opposed to the increases experienced by Temescal Wash) would represent 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. With the proposed mitigation, potentially significant indirect impacts would be reduced to less-than-significant. (Glenn Lukos Associates. 2021b)

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 including Temescal Wash and proposed realignment of Coldwater Canyon located north and east 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.

Construction activities conducted during the least Bell's vireo breeding season will be monitored by biologist to ensure no direct and/or indirect impacts occur to the species in the vicinity of the project including noise monitoring to ensure that noise levels do not exceed 60 dB within 300 feet of least Bell's vireo habitat during the nesting period.

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 or Coldwater Canyon are proposed. No significant impacts are anticipated.

Implementation of all Urban/Wildlands Interface guidelines will minimize adverse project indirect impacts and ensure consistency with MSHCP Section 6.1.4 guidelines.

10. BEST MANAGEMENT PRACTICES

The following Best Management Practices will be implemented for the proposed project to ensure compliance and consistency with MSHCP objectives and goals.

- The Project Site and adjacent vegetation is expected to potentially provide nesting habitat for migratory birds protected under the CDFG Codes. Avoidance 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 15th and February 15th) does not require preconstruction nesting bird surveys. If construction is proposed between February 16th and September 14th, a qualified biologist must conduct a preconstruction nesting bird survey. A report of the findings prepared by a qualified biologist shall be submitted to the County of Riverside for review and approval prior to the initiation of project activities.

- Construction activities conducted during the least Bell's vireo breeding season will be monitored by biologist to ensure no direct and/or indirect impacts occur to the species in the vicinity of the project including noise monitoring to ensure that noise levels do not exceed 60 dB within 300 feet of least Bell's vireo habitat during the nesting period.

- Access to Project Site shall be via pre-existing and proposed access routes extending from Dawson Canyon and Temescal Canyon Road.

- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat (Temescal Canyon Wash). Necessary precautions shall be taken to prevent the release of substances into surface waters. Project related spills of hazardous

materials shall be reported to appropriate entities including but not limited to applicable jurisdictions (County of Riverside), USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

- The Project Site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site.

- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

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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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