

Determination of Biologically Equivalent or Superior Preservation (DBESP)



The Exchange

Determination of Biologically Equivalent or Superior Preservation

prepared for

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1 Introduction

This report documents the findings of a Determination of Biologically Equivalent or Superior Preservation (DBESP) for the Exchange (project). The project is within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and Rincon Consultants (Rincon) prepared an MSHCP Consistency Analysis and a Jurisdictional Delineation on the project site that identified riverine resources protected per the guidelines in section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools) of the MSHCP. These resources will be permanently impacted during the proposed project and are unavoidable. The DBESP is being completed by Rincon to ensure compliance with the MSHCP guidelines that state impacts to riverine resources shall be mitigated such that the lost functions and values as they relate to plant and wildlife species covered in the MSHCP are replaced to conditions that are equivalent or superior.

1.1 Project Location

The project site is a primarily vacant lot located in the northwest corner of the 60-91-215 freeway interchange, directly southwest of Strong Street, southeast of North Orange Street, and northeast of Oakley Avenue. Figure 1 depicts the regional and local vicinity of the site. Fremont Elementary School is located on the west side of Orange Street across from the project site. Calvary Baptist Church is located north of the site at the southeast corner of Orange Street and Strong Street. Single family residential dwellings are to the north along Strong Street and to the west along Orange Street. The project site is comprised of the following parcels: 209-151-029, 209-151-036, 209-020-022, 209-020-047, 209-020-048, 209-020-059, 209-020-060, 209-020-061, 209-020-062, 209-060-023, 209-060-027, 209-060-029, 209-070-015.

1.2 Proposed Action

The proposed mixed-use project consists of multi-family residential dwelling units, multi-tenant commercial buildings, a vehicle fueling station, a drive-thru restaurant, two hotels, a Recreational Vehicle (RV) overnight parking component, and on-site activities (e.g., farmers market, outdoor entertainment).

The residential portion of the project will be constructed on approximately 18.4 acres on the northern half of the project site and includes a total of 482 one-, two- and three- bedroom residential units in 21, three story buildings. Project plans identify 479,773 square feet of residential space, resulting in a density of 26.2 dwelling units per acre. A total of 886 vehicle parking spaces are proposed for the residential use.

The commercial/retail, vehicle fueling station and drive-thru restaurant portion of the project would be located on approximately 7.6 acres on the southwest corner of the project site and includes a total of 49,000 square feet of multi-tenant lease space for restaurant and commercial retail tenants spread across 8 single story buildings. The retail areas would generally operate 12-15 hours a day, with the exception of the proposed gas station, which would operate 24 hours a day. A total of 400 parking stalls are proposed for the commercial component of the project.





Imagery provided by National Geographic Society, ESRI and its licensors © 2019. Riverside East Quadrangle. TO2S R05W S13. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.





Two hotel buildings would be located on approximately 7.4 acres, near the southeast corner of the project site. The proposed RV Parking is located in the southeast corner of the project site, closest to the I-215/SR 60 interchange, adjacent to the proposed hotels. The RV Parking will contain 23 RV spaces, with room to park an RV and a passenger vehicle, and 12 vehicle stalls for visitors. The two, four story hotels will total 130,000 square feet and contain 229 guest rooms. The hotels will operate independently of each other. The hotels and RV Parking would operate 24 hours a day. A total of 301 parking spaces are proposed for the two hotels.

The proposed development includes provisions for live entertainment and events and a farmers market to serve the proposed residences and surrounding community. The live entertainment would occur within the courtyard in the center of Buildings P1 through P4. The events would occur on occasion, on Fridays, Saturdays, or Sundays. Events could include farmers market, outdoor entertainment, car shows (demonstration only) and similar type events.

Vehicular access to the project site would be provided by one driveway entrance located east of the site along La Cadena Drive, and two driveways located along the northwest boundary of the site on Orange Street. Residents would primarily access the site through the entrances located at La Cadena Drive and the northern-most driveway along Orange Street; retail customers and hotel visitors would primarily access the site through the driveways along Orange Street.

A Minor Conditional Use Permit has been submitted for freeway oriented signage up to 60 feet in height, as measured from the grade of the adjacent freeway.

As part of the proposed development the applicant has submitted a Parcel Map subdividing 8 parcels into 15 parcels. Construction on the project is anticipated to being in 2019, with full occupancy anticipated by 2022.

2 Methodology

The following surveys and reports for the project were completed by Rincon, and they are the basis for the analysis in this DBESP:

- Reconnaissance Survey and Burrowing Owl Habitat Assessment: September 28, 2017
- Assessment of Riparian/Riverine, Vernal Pool Areas, and Jurisdictional Waters: July 20, 2018
- MSHCP Consistency Analysis Report (Rincon, 2018a)
- Jurisdictional Delineation Report (Rincon, 2018b)

2.1 Determination of Biologically Equivalent or Superior Preservation Analysis

Section 6.1.2 of the MSHCP requires all riparian/riverine habitat to be avoided by at least 90 percent and an Equivalency Findings report to be submitted demonstrating how the threshold has been met, per MSHCP Section 6.3.2. If the 90 percent threshold cannot be met, a DBESP must be completed. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools.

The goal of this DBESP is to demonstrate that, with the purchase of enhancement and restoration credits from a mitigation bank along the Santa Ana River, the proposed project will result in an alternative that is biologically equivalent or superior to the impacted riparian/riverine resources, and to ensure that any lost functions and values of habitat for species covered by the MSHCP are replaced. This DBESP will demonstrate that the biologically equivalent or superior alternative is equivalent or superior to avoidance of impacts without the measures proposed in this document. Consideration should be in the context of the following factors:

- Effects on conserved habitats supporting identified species;
- Effects on populations of identified species; and
- Effects on Linkages and function of the MSHCP Conservation Area.

3 Results

3.1 Existing Conditions

The project site and vicinity are relatively flat with little to no topographic relief and occurs at an elevation range of 830-860 feet above mean sea level. The project site is in arid Western Riverside County which is characterized by long, hot, dry summers and short, relatively wet winters. Average temperatures range from 62 to 95 degrees Fahrenheit (F) during the summer and 42 to 67 degrees F during the winter. The average annual precipitation in the region is 10.32 inches, with 75% of the total occurring December to March and only 5% occurring between May and September (National Oceanic and Atmospheric Administration 2018).

3.1.1 Land Use

The project site is largely undeveloped vacant land that has been heavily disturbed by repeated grubbing and disking. Based on historical aerial photographs (Nationwide Environmental Title Research 2018), residential developments once occurred on the southern portions of the site and agricultural lands occurred on the northern portions but were removed sometime between 1980 and 1994. Surrounding land uses include I-215 on the eastern perimeter, SR-60 on the southern perimeter, Fremont Elementary School on the west side of Orange Street across from the Project site, Calvary Baptist Church to the north at the southeast corner of Orange Street and Strong Street, and single-family residential dwellings to the north along Strong Street and to the west along Orange Street. A few dirt roads traverse the project site and remnants of paved roads occur near the eastern and western edges. Representative photos of the existing conditions are provided in Appendix B.

3.1.2 Soils

The soils on the project site are disturbed from ongoing maintenance activities such as clearing and grubbing, and the topsoil is no longer native soils, but appears to be generic fill from offsite based on the soil pits dug during the Jurisdictional Delineation. Previous soil mapping of the project site (USDA NRCS 2018a) described four native soil types, as described below (Figure 2). These soils are non-hydric and generally, are those that are found in alluvial fans and are typical of the region surrounding the Santa Ana River. The following soils are mapped within the project area:

- Buren fine sandy loam, 2 to 8 percent slopes, eroded (BuC2) occurs on the southeastern edge and northern edge of the project site. Buren Soil Series consists of well-drained, slow to moderately slowly permeable soils. These soils are on gently to strongly sloping alluvial fans and terraces. They formed in alluvium derived mostly from basic igneous rocks and partly from other crystalline rocks. The principal uses of soil series is used for the production of citrus, small grains, and pasture. Natural vegetation associated with this soil series typically consists of annual grasses and forbs with chaparral shrubs on eroded terrace slopes.
- Hanford course sandy loam, 2 to 8 percent slopes (HcC) occurs on a very small area at the southern tip of the project site. Hanford Soil Series consists of very deep and well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are

Figure 2 USDA Soils Map



Imagery provided by Microsoft Bing and its licensors © 2019 Additional data provided by USDA SSURGO, 2016.

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typically found on stream bottoms, floodplains, and alluvial fans at elevations of 150 to 3,500 feet and have slopes of 0 to 15 percent. Hanford soils are used for growing a wide range of fruits, vegetables, and general farm crops. They are also used for urban development and dairies. Vegetation in uncultivated areas is typically annual grasses and associated herbaceous plants.

- Pachappa fine sandy loam, 2 to 8 percent slopes, eroded (PaC2) occurs on the northern, eastern, and southwestern portions of the project site. Pachappa Soil Series consist of well drained (minimal) Noncalcic Brown soils developed from moderately coarse textured alluvium. They occur on gently sloping alluvial fans and flood plains under annual grass-herb vegetation. This soil series is mostly used for alfalfa, small grains and row crops as well as dry farm small grains. Yields are normally good. This soil type typically supports annual grasses, herbs and shrubs.
- San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded (SeC2) occurs on the central and western portions of the project site. San Emigdio Soil Series consists of very deep, well drained soils that formed in dominantly sedimentary alluvium. San Emigdio soils are on fans and floodplains and have slopes of 0 to 15 percent. The San Emigdio soils are typically used for growing citrus fruit, alfalfa, truck crops, dryland grain, and some areas are in home sites. Uncultivated areas are annual grasses and forbs.

3.1.3 Hydrology

According to the National Hydrography Dataset (USGS 2018) the project site is in the East Etiwanda Creek-Santa Ana River watershed (Hydrologic Unit Code [HUC] 180702030804). Two features occur within the project site:

- 1. **Concrete drainage channel.** A concrete drainage channel, which is identified by the Riverside County Flood Control and Water Conservation District (RCFCWCD) as the University Wash Channel (RCFCWCD 2008), flows east-west through the center of the project site. Based on historical aerial photographs the channel was constructed between 1978 and 1980 (Nationwide Environmental Title Research 2018). The channel enters the project site from a culvert at the edge of the interchange landscaping to the east and exits the site through an underground culvert at Orange Street. This feature has sloped concrete banks and a flat concrete channel and is entirely unvegetated. Water was present during the site visit and it appears that water is typically present in this drainage based on a review of historic aerial photographs (Google 2018; Nationwide Environmental Title Research 2018). The drainage is 1,394 linear feet long within the project site.
- 2. **Soft-bottom drainage channel.** A manmade, soft-bottom drainage channel enters the project site from a culvert under La Cadena Drive at the northeast corner and extends along the northwest edge and through the north-central portion and then the channel meets the concrete drainage described above approximately 400 feet from the site's western edge. A depression occurs at the topographic low-point of the project site located immediately south of the east-west portion of the soft bottom drainage where it appeared that water may occasional pool.

3.1.4 Vegetation

The dominant plant community on the project site is Wild Oat Grassland (Avena barbata Herbaceous Semi-Natural Alliance) as described in the Manual of California Vegetation (Sawyer et al. 2009; Figure 3). This community is dominated by slender wild oat (Avena barbata), ripgut brome (Bromus diandrus), red brome (Bromus madritensis ssp. rubens), and soft chess (Bromus hordeaceus). Patches of non-native and ruderal (weedy) species occur throughout the grassland and include Russian thistle (Salsola tragus), perennial mustard (Hirschfeldia incana), castor bean (Ricinus communis), and dense patches of sorghum (Sorghum halepense). Trees line a soft-bottomed drainage in the northeastern portion of the site and include blue gum (*Eucalyptus globulus*), Mexican fan palm (Washingtonia robusta), Peruvian pepper (Schinus molle) and several coast live oak (Quercus agrifolia). Blue gum and coast live oak also occur sporadically in the western portion of the project site. Other species observed in the soft-bottom drainage include olive tree (Olea europaea), opuntia cactus (Opuntia sp.), common sunflower (Helianthus annuus), jimsonweed (Datura wrightii), milk thistle (Silybum marianum), horseweed (Erigeron canadensis), western ragweed (Ambrosia psilostachya), and field bindweed (Convolvulus arvensis). The habitats on the site are heavily disturbed by developments, disking, grading, vehicle traffic, and trash and debris from homeless encampments on and near the project site.

3.2 General Wildlife

The project site provides habitat for wildlife species that commonly occur in residential, urban, and grassland communities in Riverside County. Wildlife observations included common species such as red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*). A complete list of wildlife observed is provided in Appendix A.

3.3 Riparian/Riverine, Vernal Pool, and Jurisdictional Waters

Based on the finding of Rincon's Jurisdictional Delineation Report, two jurisdictional waters occur in the project site: the concrete drainage channel and the soft-bottomed channel. A summary of the findings of jurisdiction are below in Table 1 and the limits of jurisdiction are shown in Figure 4 below.

3.3.1 Concrete Drainage Channel

The concrete drainage channel contains intermittent water flows and is part of the stormwater system for eastern Riverside. The drainage transects the length of the project site from east to west. It is likely that the water flow width can vary seasonally. At the time of the site visit, the width was approximately nine feet and covered the entire channel bottom in a thin sheet of water. The top of bank for this feature is defined as the area at the top of the concrete sloped edges of the channel, which has a 30-foot width. The project site portion of the drainage is 1,394 linear feet long.

Waters in the concrete drainage channel continue off-site, through the City's stormwater system, until it flows into Lake Evans, a manmade lake located at Fairmount Park approximately 3,000 feet west of the project site. Overflow from Lake Evans is directed into the Santa Ana River, which occurs immediately to the west of the lake, and the Santa Ana River outlets directly to the Pacific Ocean.

Figure 3 Vegetation



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Figure 4 Jurisdictional Delineation



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This concrete drainage channel meets USACE jurisdictional standards due to the presence of an ordinary high water mark and hydrologic connection to jurisdictional waters, which makes it also regulated by the RWQCB. In addition, this drainage channel is consistent with CDFW-jurisdictional streambeds (unvegetated) and qualifies as riparian/riverine under the MSHCP because it has "fresh water flow during all or a portion of the year" and it flows directly into Lake Evans, which is a Public Quasi-Public Conserved Lands under the MSCHP.

| | Waters of the U.S. ¹ | | | | |
|------------------------|---|---|--|--|--|
| Feature | Non-wetland Waters of the U.S. (acres/ linear feet) | Wetland Waters of the U.S. (acres/ linear feet) | Waters of the State ² (acres/ linear feet) | CDFW Jurisdictional Streambed (acres/ linear feet) | MSHCP Riverine (acres/ linear feet) |
| Concrete-Lined Channel | 0.29 acre/ 1,394 feet | -/- | 0.29 acre/ 1,394 feet | 1.00 acre/ 1,394 feet | 1.00 acre/ 1,394 feet |
| Soft-Bottom Drainage | 0.06 acre/ 1,551 feet | -/- | 0.06 acre/ 1,551 feet | 0.10 acre/ 1,551 feet | 0.10 acre/ 1,551 feet |
| Total | 0.36 acre/ 3,014 feet | -/- | 0.36 acre/ 3,014 feet | 1.15 acre/ 3,014 feet | 1.15 acre/ 3,014 feet |

Table 1 USACE, RWQCB, CDFW, and WRCMSHCP Jurisdictional Area

¹Regulated by USACE and RWQCB under the Clean Water Act

²Regulated by RWQCB under the Porter-Cologne Act

3.3.2 Soft-Bottom Drainage

The soft-bottom drainage channel was likely constructed to direct stormwater flow from the urban area to the north into the concrete drainage channel on the project site. The soft-bottom drainage flows directly into the concrete drainage channel via surface flow and an adjacent underground culvert. A wetland sample point was taken in the center of the channel and the findings were negative for hydric soils (see Figure 4).

The soft-bottom drainage is mostly vegetated by slender wild oat, Brome grasses, short pod mustard, and Russian thistle in the channel, edges, and surrounding areas, with some small patches of bare ground near the culvert outlet. A variety of landscaping plants occurs in the drainage and is largely associated with the residences to the north. Landscaping plants include opuntia cactus (*Opuntia* sp.), Peruvian pepper tree, Mexican fan palm, and olive tree, among other landscaped species. Vegetation near the topographic low point is much denser and includes sorghum, common sunflower, milk thistle, western ragweed, field bindweed, and horseweed. Coast live oak trees are also found sporadically along the drainage. None of the species observed were facultative, facultative wetland, or obligate wetland species (Lichvar et al. 2016).

Near the center of the soft-bottom drainage channel, where a dirt access road crosses, there is a depression adjacent to the channel (Figure 4). A man-hole occurs in the low-point of the depression that drains overflows into an underground culvert that is connected to the concrete-lined drainage channel approximately 450 feet to the southwest. At the time of the field survey, the soil in the depression was not moist and vegetation had been removed near the man-hole drainage exposing the inlet. A sample point was taken in the depression to determine if the feature met the USACE criteria for wetland WoUS, which it did not. The soils within the sample point were non-hydric and were consistent with fill material soils. The depression supports dense mats of sorghum, milk thistle,

and common sunflower, which are species that are typically found in uplands (Lichvar et al. 2016), and hydrophytic plant species are not present.

Due to its connection with the concrete-lined channel, the feature is expected to be considered jurisdictional by USACE, RWQCB, CDFW, and MSHCP. The limits of CDFW jurisdiction is concurrent with MSHCP and is six feet wide at the eastern entry point into the project site, narrows to four feet wide when the drainage turns west, and then reduces to two feet wide near the connection with the concrete-lined channel. WoUS/WoS were delineated at the ordinary high water mark (OHWM) of the channel and varied between one and two feet wide.

3.4 Determination of Biologically Equivalent or Superior Preservation Analysis

An assessment of a project's potentially significant effects on riparian/riverine areas was conducted based on the criteria described in Section 2.1.

3.4.1 Riparian/Riverine Areas Assessment

Rincon identified one concrete drainage channel and one soft-bottom drainage believed to be a riverine feature under the jurisdiction of WRCMSHCP. Both drainages would be impacted by project activities.

Functions and Values Assessment

The concrete channel is a small, seasonal waterway, containing water for longer periods of time on a seasonal basis, but not perennially throughout its entire reach. It is a man-made channel that primarily functions to channel water flows through the urban environment and into Lake Evans. The following functions are expected to be supported within the concrete drainage channel on-site: flood storage and flood flow modification. The concrete channel provides little to no nutrient retention and transformation, sediment trapping and transport, toxicant trapping, public use, or wildlife habitat.

The soft-bottom drainage is a short, man-made drainage created primarily to channel runoff from nearby residences and roadways. This waterway only flows during rain events or when man-made runoff from nearby areas occurs. The following functions are expected to be marginally supported within the soft-bottom drainage channel on-site: nutrient retention and transformation, sediment trapping, toxicant trapping, and wildlife habitat. Note that this drainage channel is short (approximately 1,500 ft), narrow, and does not connect directly to larger wildlife habitat patches or corridors. Wildlife habitat along the soft-bottom drainage consists of mostly non-native trees that could provide suitable nesting habitat for common bird species. This drainage does not provide habitat for riparian bird species such as least Bell's vireo (*Vireo bellii pusillus*).

3.4.2 Riparian/Riverine and Vernal Pool Species Assessments

The following 23 covered plant species and 12 wildlife species found in Table 2 are listed in section 6.1.2 of the MSHCP as potentially occurring in riparian/riverine and vernal pool habitats. None of these species were observed during the various surveys conducted on the site and none have the potential to use the riverine areas of the project site per the analysis below.

| Species | Habitats ¹ | Potential to Occur/Rationale | | |
|--|--|---|--|--|
| Plants | | | | |
| Brand's phacelia (<i>Phacelia</i> <i>stellaris</i>) | Primarily associated with coastal dunes and/or coastal scrub between 5 and 400 m. This species typically occurs in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers. Within western Riverside County, it is restricted to has only been found on benches along the Santa Ana River. | None. There is no floodplain with coastal dunes or coastal scrub on the project site, therefore no habitat occurs for this species. | | |
| California Orcutt grass (Orcuttia californica) | All known localities are associated with vernal pools. | None. There is no vernal pool habitat on the project site. | | |
| California black walnut (Juglans californica var. californica) | In riparian corridors, this species prefers the dryer slopes that are almost never prone to flooding and erosional activity yet are in close proximity to groundwater, and seasonal surface water. | None. This conspicuous species was not observed on the project site and surrounding areas. | | |
| Coulter's matilija poppy (<i>Romneya coulteri</i>) | Occurs in dry washes and canyons below 1,200 m in open, mildly disturbed sage scrub, chaparral and along rocky drainages. | None. There is no sage scrub or chaparral on the project site, and there is no rocky drainage areas this species requires. | | |
| Engelmann oak (Quercus engelmannii) | Associated with alluvial fans, interior valleys and occasionally slopes with a mesic aspect. | None. This conspicuous species was not observed on the project site and surrounding areas. | | |
| Fish's milkwort (Polygala cornuta var. fishiae) | Often associated with shaded areas within cismontane oak woodlands and riparian woodlands, although it also occurs in xeric and mesic chaparral habitat. | None. There is no woodland or chaparral habitat on the project site that this species requires. | | |
| graceful tarplant (Holocarpha virgata ssp. elongata) | Occurs in chaparral, cismontane woodland, coastal sage scrub, and valley and foothill grasslands below 600 meters (m). Generally, shrub cover is not well- developed, with a heavy incidence of non-native grasses and invasive herbs. The habitat for this species usually occurs on level, mildly disturbed terrain. | Low Potential. Suitable habitat is found throughout the project site's wild oat grassland, however, this species was not observed during surveys of the project site. | | |
| lemon lily (<i>Lilium parryi</i>) | Requires moisture year-round and the distribution of this species is limited to the banks of seeps, springs and permanent streams higher than 1,300 m above mean sea level. Typical habitat consists of forested, shady stream banks within narrow canyon bottoms. | None. There are no permanent streams with banks on the project site, only ephemeral drainages, one of which is concrete-lined and lacks vegetation. | | |
| Mojave tarplant (Deinandra mohavensis) | Occurs on clay or silty soils that are saturated in winter and spring and on low sand bars in river beds, along stream channels or in ephemeral grassy areas in riparian scrub and chaparral. | None. There is no riparian scrub or chaparral on the project site, and the site lack consistently moist soils. | | |
| mud nama (Nama stenocarpum) | Occurs within muddy embankments of marshes and swamps, and within lake margins and riverbanks. | None. There is no marshes or swamps or muddy embankments along lakes and rivers. | | |
| ocellated Humboldt lily (<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>) | Associated with riparian corridors in lower montane coniferous forest and coastal chaparral. Typically occurs on lower stream benches, but can also occur on shaded, dry slopes, beneath a dense coniferous canopy and cismontane oak woodland. | None. There is no coniferous forest or coastal chaparral on the project site that this species requires. | | |

 Table 2
 Riparian/Riverine and Vernal Pool Species Assessments

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| Species | Habitats ¹ | Potential to Occur/Rationale |
|--|---|---|
| Orcutt's brodiaea (<i>Brodiaea orcuttii</i>) | Occurs in clay soils in mesic native grasslands often associating with vernal pools. Also known to occur in moist meadows and along stream courses at higher elevations. | None. There is no native grasslands on the project site that this species requires, and the project site is at lower elevation. |
| Parish's meadowfoam (<i>Limnanthes gracilis</i> var. <i>parishii</i>) | Limited to ephemeral wetlands in the mountains of southern California between 600 and 1,700 m. | None. There is no wetland habitat on the project site and the site is below the known elevation range for this species. |
| prostrate navarretia (Navarretia prostrata) | Occurs within coastal sage scrub, valley and foothill grassland (alkaline washes) and vernal pools between 15 and 700m. | None. There is no suitable coastal sage scrub, alkaline washes or vernal pools on the project site. |
| San Diego button-celery (Eryngium aristulatum var. parishii) | Occurs only in vernal pools with clay soils. | None. There is no vernal pool habitat on the project site. |
| San Jacinto Valley crownscale (<i>Atriplex coronata</i> var. <i>notatior</i>) | Occurs primarily in floodplains (seasonal wetlands) dominated by alkali scrub, alkali playas, vernal pools, and, to a lesser extent, alkali grasslands. | None. There is no floodplain habitat on the project site. |
| San Miguel savory (Satureja chandleri) | Associated with rocky, gabbroic and metavolcanic substrates in coastal sage scrub, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands. | None. There is no rocky substrates on the site that this species requires. |
| Santa Ana River woolly-star (Eriastrum densifolium spp. sanctorum) | Found only within open washes and early- successional alluvial fan scrub on open slopes above main watercourses on fluvial deposits where flooding and scouring occur at a frequency that allows the persistence of open shrublands. | None. There is no alluvial scrub, floodplains, or open washes on the project site that this species requires. |
| slender-horned spine flower (Dodecahema leptoceras) | Found in sandy soil in association with mature alluvial scrub. | None. There is no mature alluvial scrub on the project site. |
| smooth tarplant (Centromadia pungens ssp. Iaevis) | Occurs in a variety of habitats including alkali scrub, alkali playas, riparian woodland, watercourses, and grasslands with alkaline affinities. | None. There is no alkaline habitat on the project site. |
| spreading navarretia (Navarretia fossalis) | Associated with vernal pools and depressions and ditches in areas that once supported vernal pools. | None. There is no vernal pool habitat on the project site. |
| thread-leaved brodiaea (<i>Brodiaea filifolia</i>) | Occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grassland, mixed native-nonnative grassland and alkali grassland plant communities in association with clay, or alkaline silty-clay soils. | Low Potential. The project site lacks native grasses and clay and alkaline soils. |
| vernal barley (Hordeum intercedens) | Associated with mesic grasslands, vernal pools, and large saline flats or depressions. | Low Potential. The project site does not support vernal pools or large saline flats. |
| Vernal Pool Invertebrates | | |
| Riverside fairy shrimp (Streptocephalus woottoni) | Restricted to deep seasonal vernal pools, vernal pool like ephemeral ponds, and stock ponds and other human modified depressions that are filled for extended periods of time. | None. There is no vernal pool habitat on the project site. |

| Species | Habitats ¹ | Potential to Occur/Rationale |
|---|---|--|
| Santa Rosa Plateau fairy shrimp (<i>Linderiella santarosae</i>) | Restricted to seasonal southern basalt flow vernal pools with cool clear to milky waters that are moderately predictable and remain filled for extended periods of time. | None. There is no vernal pool habitat on the project site. |
| vernal pool fairy shrimp (Branchinecta lynchi) | Restricted to seasonal vernal pools that have low to moderate dissolved solids, are unpredictable, and often short lived | None. There is no vernal pool habitat on the project site. |
| Fish | | |
| Santa Ana sucker (Catostomus santaanae) | Generally lives in small, perennial, shallow streams, less than 7 m in width, with currents ranging from swift in the canyons to sluggish in the bottom lands | None. There is no suitable native stream habitat on the project site. |
| Amphibians | | |
| arroyo toad (Anaxyrus californicus) | Found in foothill canyons and inter-mountain valleys where the river is bordered by low hills and the stream gradient is low. Extreme habitat specialist, restricted to riparian environments in the middle reaches of third order streams. | None. There is no suitable native stream habitat on the project site. |
| California red-legged frog (<i>Rana draytonii</i>) | Lowland streams, wetlands, and pools where dense vegetation surrounds relatively deep water with small (<300 square-kilometer) watersheds. | None. There is no suitable native stream habitat on the project site. |
| mountain yellow-legged frog (<i>Rana muscosa</i>) | Requires perennial water. Described from sunny riverbanks, meadow streams, isolated pools, lake borders, and rocky stream courses. | None. There is no suitable native stream habitat on the project site. |
| Birds | | |
| bald eagle (Haliaeetus leucocephalus) | Occur primarily at or near seacoasts, rivers, swamps, and large lakes. | None. There is no suitable foraging habitat on or near the project site. |
| least Bell's vireo (<i>Vireo bellii pusillus</i>) | Primarily occupies riverine riparian habitats that typically feature dense cover within 1-2 meters of the ground and a dense, stratified canopy. It inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically, it is associated with southern willow scrub, cottonwood forest, mulefat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities. Cover surrounding nests is moderately open mid-story with an overstory of willow, cottonwood, sycamore, or oak. Crown cover is usually more than 50 percent and contains occasional small openings. The most critical structural component to least Bell's vireo breeding habitat is a dense shrub layer at 2 to 10 feet above the ground | None. The project site lacks suitable riparian habitat that this species requires. |
| peregrine falcon (<i>Falco peregrinus</i>) | Riparian areas and coastal and inland wetlands are important habitats year-round, especially in non- breeding seasons. Nesting habitat consists of a cliff, or series of cliffs, generally 200 to 300 feet in height that tends to dominate the surrounding landscape. | None. There is no suitable riparian habitat or wetland areas on the project site. No nesting habitat occur on or near the project site. |

| Species | Habitats ¹ | Potential to Occur/Rationale | |
|--|--|---|--|
| southwestern willow flycatcher (<i>Empidonax traillii extimus</i>) | Restricted to riparian woodlands along streams and rivers with mature, dense stands of willows (<i>Salix</i> spp.), cottonwoods (<i>Populus</i> spp.) or smaller spring fed or boggy areas with willows or alders (<i>Alnus</i> spp.). For the purpose of the conservation analysis for the MSHCP, mulefat scrub was excluded. | None. The project site lacks suitable riparian habitat that this species requires. | |
| western yellow-billed cuckoo (<i>Coccyzus americanus</i> occidentalis) | Requires dense, wide riparian woodlands with well- developed understories for breeding. It occurs in densely foliaged, deciduous trees and shrubs, especially willows which are required for roost and nest sites. It is restricted when breeding to river bottoms and other mesic habitats where humidity is high and where the dense understory abuts slow- moving watercourses, backwaters or seeps. Willow is almost always a dominant component of the vegetation. | None. The project site lacks suitable riparian habitat that this species requires. | |
| Habitat associations taken from the species accounts in the MSHCP (Dudek 2003). | | | |

3.4.3 Habitat Linkages and Conservation Areas Assessment

The project site is not within an MSHCP Criteria Cell, it is heavily disturbed by past development and invasive plants and is surrounded by an urbanized area. In addition, no proposed or existing core areas, linkages, or habitat blocks are located near the project site. No larger blocks of habitat would be fragmented or interrupted as a result of the project.

4 Impact Analysis

The project site contains two drainage channels that are consistent with the MSHCP definition of a riverine system; however, it lacks riparian habitat. The proposed action will not impact riparian/riverine plant and wildlife species protected by the MSHCP, vernal pools/fairy shrimp habitat, or conservation areas.

4.1 No Action Alternative

If the proposed action is not implemented, then the drainage channels will continue to function as they are and support largely invasive and non-native plants.

4.2 Unavoidable Impacts to Riparian/Riverine Areas

The residential component of the proposed project would be developed on top of the on-site softbottom drainage and the majority of the existing concrete-lined channel would be covered with parking and drive aisles serving the commercial and hotel components of the project. The jurisdictional delineation conducted by Rincon in July 2018 (and updated in December 2018) identified the 1,551-foot-long soft-bottom drainage as containing 0.06 acre of non-wetland WoUS/ WoS under the jurisdiction of the USACE and RWQCB, respectively, pursuant to sections 401 and 404 of CWA. The soft-bottom drainage also contains 0.10 acre of CDFW streambed habitat, pursuant to CFGC Sections 1600-1603. The 1,394-foot-long concrete-lined channel was identified as containing 1.00 acre of CDFW Streambed habitat. Approximately 0.29 acre of the concrete-lined channel is also considered non-wetland WoUS/WoS, under USACE and RWQCB jurisdiction. Impacts to the concrete-lined channel and the soft-bottom drainage would be potentially significant and require the implementation of mitigation measures.

5 Mitigation and Avoidance and Minimization Measures

5.1 Off-site Riparian/Riverine Habitat Restoration and Enhancement

For unavoidable impacts to riparian/riverine systems, the MSHCP requires that a project establishes that it would be "biologically equivalent or superior" when compared to complete avoidance of the existing habitat. Impacts to jurisdictional waters shall be mitigated through the purchase of the appropriate number of riparian/riverine restoration credits from the nearby Riverside-Corona Resource Conservation District (RCRCD). These impacts will be mitigated at no less than a 1:1 ratio. Restoration credits purchased from RCRCD represent higher-quality habitat than what is being lost on site.

5.2 Avoidance and Minimization Measures

In addition to the purchase of offsite mitigation, the following best management practices (BMPs) from the MSHCP Appendix C (MSHCP 2003) would be implemented during construction:

- A qualified biologist shall conduct a training session for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.
- 2. Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- 3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via preexisting access routes to the greatest extent possible.
- 4. The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- 5. Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- 6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian bird species identified in MSHCP Global Species Objective No. 7.
- 7. When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal in stream impacts. Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the

transport of sediments off site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.

- 8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- 9. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
- 10. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to preexisting contours and revegetated with appropriate native species.
- 11. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- 12. To avoid attracting predators of the species of concern, 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(s).
- 13. 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.
- 14. The City shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMPs.

In addition to the above measures, jurisdictional areas outside the footprint of direct development impact (i.e., the eastern portion of the concrete channel) shall be avoided. Any material/spoils generated from project activities shall be located away from jurisdictional areas and protected from stormwater run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate. Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank. Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned and any contaminated materials properly disposed. For all spills, the project foreman will be notified.

6 Determination of Biologically Equivalent or Superior Preservation and Equivalency Findings

The proposed action will be consistent with MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. With the purchase of restoration credits from the nearby Riverside-Corona Resource Conservation District (RCRCD), the proposed project will result in an alternative that is equivalent or superior to the impacted riparian/riverine resources, and any lost functions and values of habitat for species covered by the MSHCP will be replaced through off-site mitigation.

7 Limitations, Assumptions, and Use Reliance

A Western Riverside County MSHCP DBESP assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Additionally, plants may not be identifiable outside the normal blooming period and it may not be possible to detect them during surveys. Plant could also become present if environmental conditions change, such as rain events that result in a dormant individual plant blooming. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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9 Certification and List of Preparers

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

Date: January 9, 2019

Signed:

Megan Minter, Senior Biologist

RINCON CONSULTANTS, INC.

Primary Author

Megan Minter, Senior Biologist

Technical Review

- Amber Bruno, Biology Program Manager
- Steve Hongola, Principal

Field Reconnaissance Survey

- Matt South, Biologist
- Megan Minter, Senior Biologist

Appendix A

Site Photographs



Photograph 1. Upstream view of concrete drainage channel as it exits the site and flows into an underground drain on the western side.



Photograph 2. View of view soft-bottom channel, looking downstream toward the confluence with the concrete channel, photo facing southwest.



Photograph 3. View of the soft-bottom drainage confluence with the concrete channel, photo facing southwest.



Photograph 4. View of beginning of the soft-bottom drainage as it enters the project site, photo facing west.



Photograph 5. Representative view of the habitat and vegetation along the soft-bottom drainage.