Appendix E-3: Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis

This Page Intentionally Left Blank

Western Riverside County
Multiple Species Habitat Conservation Plan
Consistency Analysis

Green River Ranch Business Park Industrial Project

Permittee:

City of Corona
400 S. Vicentia Avenue
Corona, California 92882
Contact: Joanne Coletta
Phone: (951) 736-2434
Email: Joanne.Coletta@CoronaCA.gov

Prepared For:

Western Realco
500 Newport Center Drive, Suite 630
Newport Beach, California 92660
Contact: Jeremy Mape
Phone: (949) 757-0510
Email: jmape@westernrealco.com

Report Preparer:

Glenn Lukos Associates, Inc.
1940 E Deere Avenue, Suite 250
Santa Ana, California 92705
Contact: David Moskovitz
(949) 340-2562
Email: dmoskovitz@wetlandpermitting.com

January 17, 2022
Revised August 1, 2023
Revised April 11, 2024
Revised August 29, 2024

Table of Contents

TABLES

EXHIBITS

APPENDICES

1.0 EXECUTIVE SUMMARY

Glenn Lukos Associates, Inc. (GLA) has prepared this report to document consistency of the Green River Ranch Business Industrial Park Project (the "Project") with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), including the Project's relationship to Reserve Assembly, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

The Project site occurs within the MSHCP Temescal Area Plan, and specifically in Subunit 1 (Santa Ana River to Santa Ana Mountains), Criteria Cells 1616, 1702, 1704, 1706, 1811, and 1812. These Criteria Cells support the existing Proposed Constrained Linkage 1 (PCL-1) with Proposed Constrained Linkage 2 (PCL-2) further to the east; both PCL-1 and PCL-2 are intended to connect Existing Core A (Prado Basin/Santa Ana River) with Existing Core B (Cleveland National Forest) to the south and is expected to provide for movement of mountain lion, bobcat, and other wildlife.

The City of Corona is currently processing a Criteria Refinement to formally relocate PCL-1 from the route that is currently described by the MSHCP Cell Criteria (through the Project site) to an alternate location through the "B Canyon area" to the west/southwest of the Project. The proposed relocation of PCL-1 coincides with the RCA's recent acquisition of approximately 740 acres of lands located south and west of the Project that contain B Canyon. The RCA issued Criteria Refinement Review Findings (CR# 24-01-10-01, dated February 20, 2024) in support of the Criteria Refinement and the Wildlife Agencies provided concurrence via electronic mail on March 25, 2024. The formal relocation of PCL-1 eliminates the need for the Project site, specifically the lands within the proposed development footprint, and additional lands north of Green River Road to facilitate wildlife movement between Core A and Core B. The RCA's Criteria Refinement Review Findings are included as Appendix A. The Wildlife Agencies' concurrence is included as Appendix B.

Although lands within the proposed development footprint of the Project will not be needed to support the assembly of PCL-1, the Project proposes to conserve 80.77 acres of land within the southern portion of the Project site that will support the movement of wildlife to the west and north along the relocated PCL-1 route. The conserved lands would be dedicated to the RCA and managed and protected in perpetuity. MSHCP Reserve Assembly is further addressed in Section 3.0 below.

The proposed Project will impact approximately 3.65 acres of MSHCP riparian/riverine areas, including 3.61 acres onsite and 0.04 acre offsite. The Project site does not support least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), or western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); however, least Bell's vireo was detected immediately north of Green River Road, so the Project will incorporate measures, as applicable, to avoid or minimize

indirect effects to least Bell's vireo during construction. The Project site does not contain vernal pools or other ephemeral ponds with the potential to support listed fairy shrimp. The functions of impacted MSHCP riparian/riverine areas must be replaced such that the resulting Project is "biologically equivalent or superior" to the existing site conditions. A Determination of Biologically Equivalent or Superior Preservation (DBESP) must be approved by the wildlife agencies (USFWS and CDFW) for the proposed Project. Subject to the approval of a DBESP, the Project will be consistent with MSHCP *Volume I, Section 6.1.2* of the MSHCP.

Volume I, Section 6.1.3 of the MSHCP requires that within identified Narrow Endemic Plant Species Survey Areas (NEPSSA), site-specific focused surveys for Narrow Endemic Plants Species are conducted for all public and private projects where appropriate soils and habitat are present. The Project site is within the MSHCP NEPSSA Survey Area 7. To satisfy MSHCP survey requirements, focused plant surveys were performed on the Project site, including for the following target Narrow Endemic Plant species:

- San Diego ambrosia (*Ambrosia pumilla*)
- Brand's phacelia (*Phacelia stellaris*)
- San Miguel savory (*Clinopodium chandleri*)

None of the three NEPSSA plant species were detected during focused surveys and were determined absent from the site.

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development.

As discussed in Section 9.0 of this document, the Project will implement applicable measures as it relates to adjacency with the proposed MSHCP Conservation Area lands to the south to minimize adverse indirect impacts on special-status resources within Conserved Lands, and will implement measures during construction to address

potential temporary indirect effects if least Bell's vireo is located adjacent to (north of) the Project footprint during construction. The proposed Project will be consistent with *Volume I, Section 6.1.4* of the MSHCP.

The Project site is within the MSHCP burrowing owl survey area. To comply with MSHCP survey requirements pursuant to *Volume I, Section 6.3.2*, focused burrowing owl surveys were performed for the Project site. Burrowing owls were confirmed absent from the site. However, because of the potential suitability to support burrowing owls, consistent with the MSHCP burrowing owl survey guidelines and MSHCP objectives for the burrowing owls, pre-construction surveys will be conducted no more than 30 days prior to ground disturbance within all areas of suitable habitat.

2.0 INTRODUCTION

2.1 Project Site

The Project site (inclusive of onsite area and offsite disturbances) comprises approximately 165.90 acres in the City of Corona, Riverside County, California [Exhibit 1 – Regional Map] and is located within the U.S. Geological Survey (USGS) Prado Dam and Black Star Canyon, California 7.5′ topographic quadrangle maps [Exhibit 2 – Vicinity Map]. The Project site is entirely within Criteria Cells. The Project site is generally bordered by Green River Road and State Route 91 (SR-91) to the north, SR-91 to the west, residential development to the east, and undeveloped open space to the east and to the south. Accessor's Parcel Numbers (APNs) within the Project site include: 101-180-014, 101-180-015, 101-180-037, 101-180-038, 101-190-034, 101-440-020, 102-360-043, and 102-360-060.

Development of the Project will result in 78.87 acres of impacts associated with the Business Park Industrial Project, including 67.25 acres of onsite improvements and 11.62 acres of offsite improvements. All of the impacts will be permanent, except for 2.57 acres of onsite temporary impacts proposed for oak woodland mitigation and 0.26 acre of offsite temporary impacts associated with Green River Road improvements. The 2.57-acre area will be temporarily graded to facilitate the construction of the adjacent Industrial Facility and then will be restored with riparian oak woodland. The 0.26 acre of offsite temporary impacts consists of improvements along the northern side of Green River Road that will be graded to transition the roadway to the existing natural grade. These areas are within the Caltrans easement for SR-91 and have been previously graded/modified in support of prior SR-91/Green River Road interchange improvements, including a slope that transitions down to the natural grade beyond the limits of the Project's impacts. Following the completion of Project's construction activities with Green River Road, the temporary disturbance areas will be restored with native vegetation.

Of the 64.68 acres of onsite permanent improvements, approximately 50.53 acres is associated with the proposed Business Park Industrial Project, and 14.15 acres is

associated with a parcel that is zoned for Estate Residential but that must be graded in order to construct the Business Park Industrial Project. The Project will conserve 80.77 acres of land that will contribute to Reserve Assembly, and which will be donated into MSHCP conservation as Additional Reserve Lands (ARL) prior to any Project-related ground disturbance. Additionally, approximately 2.57 acres of the Project site will be temporarily graded to accommodate the construction of the Business Park Industrial Project, but these lands will be restored with oak woodlands to mitigate the loss of oak woodland habitat due to the Project. The Oak Woodland Mitigation area currently contains 0.18 acre of riverine features that will be impacted by the Project; however, as described below in Section 5.0, the Project will re-establish a flow area within the mitigation area and direct flows into the mitigation area such that there will be a minimum of hydrological re-establishment to support the oak woodland mitigation.

An additional 6.26 acres of land is also zoned for Estate Residential but because residential development is not currently proposed in this area, the 6.26-acre area will not be graded by the Project and for planning purposes is designated as Residentially Zoned Open Space. Although the reference to "Residentially Zoned Open Space" is a term associated with the portion of the Specific Plan's Estate Residential planning area that will not be graded to implement the Industrial Business Park Project, for purposes of the MSHCP and this Consistency Analysis, the 6.26-acre is referred to as "Avoidance Area (Deed Restriction)" to reflect that the area will be at least temporarily avoided and protected with a deed restriction. Furthermore, it is acknowledged that the JPR for the Business Park Industrial Project is not evaluating a residential development component for the 6.26-acre parcel or the 14.15-acre parcel. Because the 6.26-acre parcel cannot, at this time, be designated as part of the MSHCP Reserve, and because the 6.26-acre parcel contains MSHCP riparian/riverine areas, a deed restriction is proposed to be placed over the 6.26-acre parcel to provide at least temporary protection to these lands until or unless future residential development is proposed. If a residential development project is later proposed, and which would require the development of all or part of the 6.26-acre parcel, then either the Business Park Industrial Project JPR would be amended or a new JPR would be processed to evaluate the residential project and allow the deed restriction to be removed. Any subsequent impacts to MSHCP resources within the 6.26-acre area, including riparian/riverine areas would also require a revised or new DBESP.

The proposed Green River Ranch Specific Plan Amendment establishes zoning and designates areas within the Specific Plan boundary where development has the potential to occur. In order to implement any development, an applicant is required to submit a Precise Plan application to the City of Corona, which is discretionary and subject to CEQA. Based on the proposed Specific Plan Amendment, there is potential for three development projects to occur in the Specific Plan area, including 1) the Business Park Industrial project; 2) a Commercial Development project; and 3) an Estate Residential Project.

The Business Park Industrial project is the project addressed in this Consistency Analysis because a Precise Plan application has been filed and is under consideration

by the City of Corona. There has been no Precise Plan application made to the City for a potential Commercial Development project or a potential Estate Residential Project. A future Commercial Development Project would be submitted to the RCA for review as a separate JPR application. The area where a future Commercial Development project could be proposed under a Precise Plan application is located north of Green River Road but would be a separate project from the Business Park Industrial project.

A future Estate Residential project that could be proposed under a future Precise Plan application would be separate from the Business Park Industrial Project if an Estate Residential project were to ever move forward. A hypothetical general description of the Estate Residential Project is provided below in Section 2.2. The overall parcel designated Estate Residential by the Specific Plan (20.41 acres) has overlap with the Business Park Industrial Project's grading footprint (14.15 acres). If a residential project were to proceed under a future Precise Plan application, it could occur on the 14.15 acres in the northern portion of the Estate Residential parcel previously disturbed by the Business Park Industrial project, and potentially extend into the 6.26 acres zoned Estate Residential that would not be disturbed by the Business Park Industrial Project. The 14.15 acres must be impacted as part of the remedial grading to support the Business Park Industrial Project and will contain manufactured slopes. However, the remaining 6.26 acres of the Estate Residential parcel will not be impacted by the Business Park Industrial Project and would consist of open space zoned Estate Residential, and so is referred to as the "Residentially Zoned Open Space". Until a decision is made on the status of potential residential development, the entire 20.41-acre Estate Residential parcel will be owned by the Business Park Industrial Project's property owners' association, and the deed restriction will be placed over the 6.26-acre Residentially Zoned Open Space to at least temporarily restrict the disturbance of the 6.26 acres. If a future residential development project were to proceed on any of the 20.41 acres, the Business Park Industrial Project's property owners' association would convey all or a part of the overall 20.41 acres to a residential developer. The developer would then need to submit a Precise Plan application and tract map application to the City of Corona, which will require City review of a grading plan, utilities plan, vehicular access plan, lotting, architecture, landscaping plan, and fire protection plan at minimum. A Precise Plan is a discretionary action requiring review and approval by the City of Corona Planning Commission, inclusive of a CEQA compliance process that would tier from the Green River Ranch Specific Plan Amendment EIR (currently under preparation). Furthermore, the residential developer would need to submit a new JPR application or amend the JPR for the Business Park Industrial Project to address at a minimum MSHCP requirements pertaining to the Urban/Wildland Interface Guidelines (UWIG) and finalize the status of the Residentially Zoned Open Space. If any of the 6.26 acres is proposed in the future to be disturbed by a residential project, then the deed restriction would need to be removed or modified as a part of a new JPR or a JPR amendment. As noted above, from here on in this document, the 6.26-acre area is referenced as "Avoidance Area (Deed Restriction)", which has been carried over to all applicable exhibits and is reflected in the GIS shapefiles provided along with this document.

Table 2-1 below summarizes the different Project components, which are also depicted on Exhibit 3 [Site Plan Map].

Table 2-1. Summary of Project Components.

Project Component	Permanent Impact (Acres)	Temporary Impact (Acres)	Avoidance (Acres)	Total (Acres)
Onsite				
Business Park Industrial	50.53	0	0	**50.53**
Estate Residential Zoning – Industrial Project Grading	14.15	0	0	**14.15**
Oak Woodland Mitigation	0	2.57	0	**2.57**
Avoidance Area (Deed Restriction)	0	0	6.26	**6.26**
Proposed Conservation	0	0	80.77	**80.77**
Onsite Subtotal	**64.68**	**2.57**	**87.03**	**154.28**
Offsite				
Business Park Industrial	1.66	0	0	**1.66**
Green River Road Improvements	4.22	0.26	0	**4.48**
Sewer Improvements (Green River Road and Palisades Drive)	4.83	0	0	**4.83**
Fresno Road Repaving	0.65	0	0	**0.65**
Offsite Subtotal	**11.36**	**0.26**	**0**	**11.62**
Total	**76.04**	**2.83**	**87.03**	**165.90**

2.2 Project Description

The overall Project includes approximately 78.87 acres of grading or other improvements, including 50.53 acres onsite associated with the Business Park Industrial Project, 2.57 acres onsite associated with temporary grading to establish an oak woodland mitigation area, and 11.62 acres of offsite improvements (Industrial Business Park Project, Green River Road, Dominquez Ranch Road, sewer improvements at Green River Road/Palisades Drive, and re-paving the existing Fresno Road alignment). Approximately 14.15 acres of grading would be associated with the creation of manufactured slopes for stabilization purposes and is zoned as Estate Residential with a potential future use for residential development. Approximately 2.57 acres of Oak Woodland Mitigation will be temporarily graded to accommodate the construction of the Business Park Industrial Project, but these lands will be restored with oak woodlands to mitigate the loss of oak woodland habitat due to the Project. The

proposed oak woodland mitigation is further discussed below in Section 5.0 of this document, including the plan to maintain flows into the mitigation area such that there will be a minimum of hydrological re-establishment to support the mitigation area.

2.2.1 Business Park Industrial

The "Business Park Industrial" land use designation applied by the proposed Green River Ranch Specific Plan Amendment is associated with approximately 52.19 acres of the Project evaluated herein, including 50.53 acres onsite and 1.66 acres offsite that the applicant is intending to acquire from the City. The 50.53-acre onsite portion is designed to include five proposed buildings, parking, landscaping and other components. The offsite portions include proposed landscaping areas between the development parcels/Specific Plan boundary and Green River Road, as well along as a portion of Dominguez Ranch Road proposed for landscaped slope and utility improvements.

Building 1 is located within proposed Planning Area 1. Truck trailer loading docks are proposed along the southern side of the building, with passenger vehicle parking areas occurring to the west, north, and east of the building, as well as to the south side of the truck trailer docking area. Access to Building 1 would be provided from a driveway along Street A.

Buildings 2 and 3 are located within proposed Planning Area 2. Truck trailer loading docks are proposed along the east side of Building 2 and along the west side of Building 3. Passenger vehicle parking areas are proposed to the west, north, and east of the proposed buildings, with additional passenger vehicle parking proposed along the south side of Building 3. Access to Buildings 2 and 3 would be accommodated by emergency-only driveways extending from Street A.

Buildings 4 and 5 are located within proposed Planning Area 3. Truck trailer loading docks are proposed along the east side of Building 4 and along the west side of Building 5. Passenger vehicle parking areas are proposed to the west, south, and east of the proposed buildings, with additional passenger vehicle parking proposed along the north side of Building 5. Access to Buildings 4 and 5 would be accommodated by two driveways extending from Street A, and a single driveway extending from Dominguez Ranch Road.

The proposed manufactured slopes are designed around the development pads, with the manufactured slopes transitioning into the natural condition on the southern side of the development. Landscaping is proposed for the manufactured slopes for stabilization and aesthetic purposes. The slopes would be hydroseeded and landscaped with tree species including 24-inch box California laurel (*Umbellularia californica*), 24-inch box coast live oak (*Quercus agrifolia*), and 24-inch box Catalina cherry (*Prunus lyonia*).

Wildlife fencing will be constructed along the western and southern edges of the Project site to direct wildlife to the west along the re-designated PCL-1 Route in B Canyon. The

location of the proposed fencing is depicted on Exhibit 3. The fence will start at the eastern property boundary, extending west along the limits of the proposed MSHCP Conservation until the fence reaches the western boundary shared with the existing ARL. Then the fence will turn north along the property boundary to the terminus of Fresno Road, then northwest where the fence will terminate at the limits of Caltrans' easement for SR-91. The fence is proposed to be chain link (at least 8 feet tall) and will include one-way swing gates to allow for wildlife escape access to the open space to the south and west.

2.2.2 Green River Road

The Project will improve an approximately 2,000-foot section of Green River Road, from the SR-91 ramps on the west to Dominguez Ranch Road on the east. The Project includes approximately 4.22 acres of improvements (permanent impacts) associated with Green River Road, including the existing roadway and proposed widening areas, and 0.26 acre of temporary impacts adjacent to the northern edge of the permanent improvements. The existing Green River Road includes approximately 100 to 110 feet of pavement, curb and gutter, and sidewalk (southern edge), as well as re-constructed slopes on either side of the paved roadway. Proposed improvements to Green River Ranch Road will occur between Fresno Road and Dominguez Ranch Road and will consist of new turn lanes, resurfacing the pavement and replacing the curb and gutter, and replacing sidewalks only along the southern edge of the roadway. Medians will be modified within the existing footprint and the road surface will be re-striped, as needed. The permanent Green River Road improvements will not exceed the 118-foot maximum allowable width. Appendix C provides improvement plans for Green River Road.

Northern Side of Green River Road

The northern side of Green River Road is being widened by Caltrans 13 feet between the SR-91 Ramps and Fresno Road irrespective of the proposed Project to provide a dedicated right turn lane to SR-91. This widening is currently being constructed by Caltrans but is identified here for reference. East of the Caltrans improvements, the Project will match the Caltrans widening width and widen the northern side of Green River Road by 13 feet to lengthen the turn lane installed by Caltrans. The existing curb and gutter would thus be moved 13 feet to the north to accommodate the additional lane width. The widening would stop at the approximate location of proposed Street A (the entry to the proposed Business Park Industrial Project). No widening on the northern side of Green River Road would occur between proposed Street A and Dominguez Ranch Road. North of the widening area, approximately 0.26 acre will be graded to transition the roadway to the existing natural grade, resulting in a 2:1 slope that will be restored with native vegetation following the completion of construction activities. These areas are within the Caltrans easement for SR-91 and have been previously graded/modified in support of prior SR-91/Green River Road interchange improvements, including a slope that transitions down to the natural grade beyond the limits of the Project's impacts. The City of Corona has confirmed that they consider the impacts along the northern side of the road to be temporary (July 24, 2024, email

correspondence, included with Appendix C).

Medians

Within the existing Green River Road alignment at Fresno Road and just east of Fresno Road, the City of Corona will require the Project Applicant to install a raised center, hardscaped median with 8-inch curb for the purpose of prohibiting left turn movements from westbound Green River Road to Fresno Road. The median will be approximately 12 feet wide by 200 feet long including tapers. Also, on Green River Road just west of Dominguez Ranch Road, the City of Corona will require the Project Applicant to close a gap in the existing center median, to match the existing raised center, hardscaped median design at 12 feet wide with an 8-inch curb.

Southern Side of Green River Road

East of Fresno Road for a distance of approximately 125 feet, Green River Road will be widened by 2 feet. East of the 2 feet widening section, Green River Road will be widened by 14 feet to add a right turn lane for proposed Street A. The existing curb, gutter, and sidewalk would thus be moved 14 feet to the south to accommodate the additional lane. At the Green River Road/proposed Street A intersection, a traffic signal is proposed. East of this new intersection, the southern side of Green River Road will be widened by 5 feet for a distance of approximately 150 feet, including tapers.

2.2.3 Sewer Improvements (Green River Road/Palisades Drive)

In anticipation of the increased sewer flows associated with future developments throughout the City of Corona, the Department of Water and Power has proposed several Capital Improvement Projects to address current and future deficiencies in the existing sewer system. The proposed Project (per the City's plans) will construct a new lift station at the intersection of Green River Road and Palisades Drive (in APN 102-360-060) to replace and upgrade the existing SDO LS (Sierra Del Oro Lift Station). The proposed lift station will accommodate flows from existing and future developments, which include the proposed sewer flows from the Business Park Industrial Project. The sewer improvements also include 2,600 linear feet of 12-inch gravity sewer and 1,500 linear feet of 12-inch force main.

The lift station will be constructed in an existing developed area northeast of the intersection of Green River Road and Palisades Drive. The proposed sewer lines will be installed within the existing roadways and will not increase the width of either roadway.

2.2.4 Fresno Road Repaving

The Project Applicant will repave the existing Fresno Road, occurring in a 24-foot width, on top of the existing pavement in the Fresno Road public right-of-way. There will be no widening or any other improvements other than repaving. Maintenance will be typical

city maintenance for a public road, which includes sweeping and as-needed pavement repair if there is any damage.

2.2.5 Estate Residential

As discussed above in Section 2.1, the Green River Ranch Specific Plan establishes zoning for a potential Estate Residential development project. The overall "Estate Residential" area includes the 14.15 acres that would be graded (manufactured slopes) in support of the Business Park Industrial Project (Estate Residential Zoning – Business Park Industrial Project Grading) and the 6.26 acres of Avoided Area (Deed Restriction). If developed in the future, the Estate Residential area is planned to accommodate a maximum of 32 residential estate lots, which might impact a portion of the Avoided Area (Deed Restriction). The minimum residential lot size would be 25,000 square feet per lot, and it is anticipated that each lot would include a development pad and perimeter sloping areas that would be landscaped or left natural. Maximum structure height would be limited to 30 feet or two stories. It is expected that all development pads would be set back from natural drainages. The design and locations of these lots would be determined at a future time through a City of Corona Precise Plan approval process. In the meantime, a temporary deed restriction is proposed over the Avoided Area (Deed Restriction) that would not otherwise be disturbed for construction of the Business Park Industrial uses to the north. Any future removal or modification of the deed restriction would require a new JPR or an amendment to the JPR 22-04-02-01.

2.2.6 Oak Woodland Mitigation

The Project includes a 2.57-acre area that will be temporarily graded to accommodate the construction of the Business Park Industrial Project, but these lands will be restored with oak woodlands to mitigate the loss of oak woodland habitat due to the Project. The Oak Woodland Mitigation area currently contains 0.18 acre of riverine features that will be impacted by the Project; however, as described below in Section 5.0, the Project will re-establish a flow area within the mitigation area and direct flows into the mitigation area such that there will be a minimum of hydrological re-establishment to support the oak woodland mitigation.

2.2.7 Proposed Conservation

The Project includes 80.77 acres of proposed conservation to be dedicated to the RCA in support of MSHCP Reserve Assembly, all of which is in the southern portion of the overall Study Area and would not be disturbed. These lands will be donated into MSHCP conservation as ARL prior to any project-related ground disturbance.

2.3 Covered Roads

Section 7.3.5 of the MSHCP addresses planned roads within the Criteria Area, also referred to as "Covered Roads". Planned roadways are defined as either existing facilities that require improvements (*i.e.*, widening) or as new facilities to be constructed

as identified as part of County's General Plan circulation element (MSHCP *Figure 7-1*). The Project proposes to improve sections of two roadways identified as "Covered Roads", including Green River Road and Dominquez Ranch Road, and proposes sewer improvements in Palisades Drive, a covered road.

This section of the Consistency Analysis will address applicable portions of MSHCP *Section 7.5*, which provides "guidelines for facilities within the Criteria Area and Public/Quasi-Public (PQP) lands.

MSHCP *Section 7.5.1* provides guidelines for the siting and design of planned roads within the Criteria Area and PQP lands as follows:

- 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, rights-of-way, 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 outlined in the Guidelines for Construction of Wildlife [Crossings] (MSHCP *Section 7.5.2*).
- 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 *Section 7.5.2* provides guidelines for the construction of wildlife crossings, stating that "roads that have the potential to result in impediments to wildlife movement will include both general considerations and specific design guidelines for the construction of wildlife crossings where appropriate". The guidelines provide "a basic framework for wildlife crossing recommendations and are to be applied where there is

either known wildlife movement, and/or in portions of the MSHCP Conservation Area that are assembled to provide for wildlife movement". MSHCP *Section 7.5.2* provides definitions for underpasses, overpasses, and culverts. The MSHCP section provides guidelines for avian wildlife, large mammalian wildlife, smaller wildlife (mammals, reptiles, and amphibians), and insects, and provides guidelines for wildlife movement design configurations.

Lastly, MSHCP *Section 7.5.3* provides construction guidelines, addressing items such as water pollution and erosion control, construction timing relative to birds (breeding and migratory uses), stream diversions, silt fencing, settling ponds, equipment staging and storage, demarcating disturbance limits, exotic species removal, personnel training, monitoring, fire management and dust control.

The following discussion is provided for three Covered Roads (Green River Road, Dominguez Ranch Road, and Palisades Drive), within which improvements will be conducted. However, widening will only be conducted for the specified portion of Green River Ranch Road, and in that case the permanent improvements will not exceed the maximum allowable width of 118 feet for Green River Road. Improvements to Rancho Dominguez Road and Palisades Drive will not affect the maximum allowable width for either roadway, which is identified as 74 feet for both.

2.3.1 Green River Road

The Project will improve approximately 2,000 linear feet of the existing alignment of Green River Road, all of which is within the Criteria Area (Cell 1702 and 1704). Green River Road is identified as a "major road" in the General Plan Circulation Element, with a 118-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Green River Road within the Criteria Area is 118 feet. The proposed road improvements will primarily be located within the existing improved right-of-way, with the proposed southern improvements transitioning to the Business Park Industrial Project footprint, and the northern improvements transitioning into the property that is identified in the Green River Ranch Specific Plan as a future commercial development project. The Project includes approximately 4.22 acres of improvements (permanent impacts) to Green River Road, including the existing roadway and proposed widening areas. North of the permanent impact area, the slope will transition from the road to the existing natural grade, resulting in a 0.26-acre area consisting of a 2:1 slope that will be restored with native vegetation following the completion of construction activities. These areas are within the Caltrans easement for SR-91 and have been previously graded/modified in support of prior SR-91/Green River Road interchange improvements, including a slope that transitions down to the natural grade beyond the limits of the Project's impacts. The City of Corona has determined that the impacts in the 0.26-acre area will be temporary. The permanent and temporary impact areas are depicted on Exhibit 3, 5, 6, 7A, 7B and 8 of this Consistency Analysis and on the Green River Road improvement plans [Appendix C].

The construction of the Green River Road improvements will comply with all applicable guidelines identified in MSHCP *Section 7.5*. The improved road will follow the existing alignment for Green River Road and the permanent impact areas will remain within the maximum allowable width of 118 feet for the Covered Road area. As such, the improvements will be located in the least environmentally sensitive location feasible. The widening of Green River Road will not impact Covered Species, including Narrow Endemic Plants. Construction-related disturbance of the roadside areas will avoid the active breeding season if feasible, but if not feasible then nesting bird surveys will be performed prior to disturbance activities. As is discussed throughout this Consistency Analysis, PCL-1 is being re-designated to an alternate route west and north through B Canyon (southwest of the Project). With the relocation of PCL-1, the Linkage will no longer be relevant to Green River Road and the improvements to Green River Road will not affect PCL-1.

A separate segment of Green River Road at the intersection with Palisades Drive will be improved to install new sewer facilities within the existing alignment. The proposed improvements will not affect the width of Green River Road at this location, and therefore the maximum allowable width will not be exceeded.

2.3.2 Dominguez Ranch Road

Dominguez Ranch Road is identified as a "collector road" in the General Plan Circulation Element, with a 74-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Dominguez Ranch Road within the Criteria Area is 74 feet. The Project proposes landscaping and utility improvements within the western half of Dominguez Ranch Road between Green River Road on the north and a secondary access to the business park industrial development on the south. The Project will also improve the driveway access to an existing commercial/retail property to the east. However, the Project will not widen Dominguez Ranch Road, and therefore will not exceed the maximum allowable width of 74 feet.

2.3.3 Palisades Drive

Palisades Drive is identified as a "collector road" in the General Plan Circulation Element, with a 74-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Palisades Drive within the Criteria Area is 74 feet. As described above in Section 2.2.3 (Sewer Improvements), the Project will install 2,600 linear feet of 12-inch gravity sewer and 1,500 linear feet of 12-inch force main within the existing roadways at the intersection of Palisades Drive and Green River Road. However, the installation of the sewer facilities will not affect width of the roadway and therefore the maximum allowable width of 74 feet will not be exceeded.

3.0 RESERVE ASSEMBLY ANALYSIS

The Project occurs within the MSHCP Temescal Area Plan, specifically in Subunit 1 (Santa Ana River to Santa Ana Mountains), Criteria Cells 1616, 1702, 1704, 1706, 1811, and 1812 [Exhibit 5A – MSHCP Overlay Map]. Lands described for conservation within these Criteria Cells are intended to support the assembly of PCL-1 and PCL-2 further to the east. Both PCL-1 and PCL-2 are intended to connect Existing Core A (Prado Basin/Santa Ana River) with Existing Core B (Cleveland National Forest) to the south and is expected to provide for movement of mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), and other wildlife. Lands within the overall Project site are associated with PCL-1, including proposed development and conservation associated with the Project. PCL-2 is located east of the Business Park Industrial Project, and west of the proposed sewer improvements at Palisades Drive/Green River Road, and so requirements pertaining to PCL-2 are not applicable to the Project.

The City of Corona is currently processing a Criteria Refinement to formally relocate PCL-1 from the route that is currently described by the MSHCP Cell Criteria (through the Project site) to an alternate location through the "B Canyon area" to the west/southwest of the Project. The proposed relocation of PCL-1 coincides with the RCA's recent acquisition of approximately 740 acres of lands located south and west of the Project that contain B Canyon. The RCA issued Criteria Refinement Review Findings (CR# 24-01-10-01, dated February 20, 2024) in support of the Criteria Refinement and the Wildlife Agencies provided concurrence via electronic mail on March 25, 2024. The formal relocation of PCL-1 eliminates the need for the Project site, specifically the lands within the proposed development footprint, and additional lands north of Green River Road to facilitate wildlife movement between Core A and Core B. The RCA's Criteria Refinement Review Findings are included as Appendix A. The Wildlife Agencies' concurrence is included as Appendix B. Regardless of the Criteria Refinement, the Project will conserve 80.77 acres of land in the southern portion of the site associated with Cells 1702, 1704, 1811 and 1812 to support the Reserve, and those lands are contiguous with the 740 acres recently acquired by the RCA for the assembly of PCL-1. The Criteria Cells and proposed conservation are depicted on Exhibit 5 [Reserve Assembly Map].

Table 3-1. Summary of Proposed Conservation

Criteria Cell	Conservation Acreage
1702	26.82
1704	20.73
1811	13.90
1812	19.32
Total	**80.77**

The Criteria for each Cell is described below along with the conservation acreage proposed for each Cell, first identifying those Cells associated with PCL-1 and then those Cells associated with PCL-2.

3.1 Criteria Cell 1702

The following is the Criteria for Cell 1702 as stated in the MSHCP:

> *Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub and grassland. Areas conserved within this Cell will be connected to coastal sage scrub habitat proposed for conservation in Cells #1704 to the east and #1811 to south. Conservation within this Cell will range from 20%-30% of the Cell focusing on the eastern portion of the Cell.*

Cell 1702 is approximately 187 acres, which equates to a conservation range of 37 to 56 acres in the eastern portion of the Cell. The lands to be conserved for this Cell are intended to occur both north and south of Green River Road for PCL-1, although the majority would occur south of Green River Road. However, as noted above, the Criteria Refinement and the resulting relocation of PCL-1 removes the requirement to conserve the lands in the northern portion of Cell 1702 for PCL-1. Regardless, the Project will conserve approximately 26.82 acres of land in Cell 1702 [Exhibit 5] that will still support the goals of the relocated PCL-1. In addition to the conservation of lands proposed by the Project, approximately 33.73 acres of lands immediately west of the Project site are already conserved as part of the MSHCP Reserve. Combined with existing MSHCP Conserved Lands, the conservation proposed by the Project will result in 60.55 acres of total conservation for Cell 1702.

3.2 Criteria Cell 1704

The following is the Criteria for Cell 1704 as stated in the MSHCP:

> *Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub. Areas conserved within this Cell will be connected to coastal sage scrub habitat proposed for conservation in Cells #1812 and #1702 to the south and west. Conservation within this Cell will be approximately 5% focusing on the southwestern portion of the Cell.*

Cell 1704 is approximately 185 acres, which equates to 9 acres of conservation in the southwestern portion of the Cell. The Project will conserve approximately 20.75 acres of lands in Cell 1704 in the southwestern portion of the Cell [Exhibit 5]. This conservation will support the goals of the relocated PCL-1.

3.3 Criteria Cell 1811

The following is the Criteria for Cell 1811 as stated in the MSHCP:

> *Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub, chaparral,*

and water. Areas conserved within this Cell will be connected to uplands proposed for conservation to the south, east, and north in Cells #1896, #1812, and #1702. Conservation within this Cell will range from 50%-60% focusing on the eastern portion of the Cell.

Cell 1811 is approximately 145 acres, which equates to a conservation range of 73 to 87 acres in the eastern portion of the Cell. The Project controls 13.90 acres of land in Cell 1811, all of which will be conserved by the Project [Exhibit 5]. The proposed conservation will be contiguous with existing ARL located to the west and south and will support the goals of the relocated PCL-1.

3.4 Criteria Cell 1812

The following is the Criteria for Cell 1812 as stated in the MSHCP:

Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub and chaparral. Areas conserved within this Cell will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cells #1898, #1811, and Cell #1704 to the south, west, and north. Conservation within this Cell will range from 25%-35% focusing on the western portion of the Cell.

Cell 1812 is approximately 145 acres, which equates to a conservation range of 36 to 51 acres in the western portion of the Cell. The Project controls 19.33 acres of land in Cell 1812, all of which will be conserved by the Project [Exhibit 5]. The proposed conservation will be contiguous with existing ARL located to the south and will support the goals of the relocated PCL-1.

3.5 Criteria Cell 1616

The following is the Criteria for Cell 1616 as stated in the MSHCP:

Conservation within this Cell will contribute to assembly of Existing Core A. Conservation within this Cell will focus on a variety of wetland habitat associated with the Prado Flood Control Basin and the Santa Ana River, and grassland. Areas conserved within this Cell will be connected to wetlands and uplands proposed for conservation in Cell Group B to the west and Cell #1706 to the south. Conservation within this Cell Group will range from 25%-35% focusing on the central and western portions of the Cell.

Approximately 4.51 acres of the Project site is within Cell 1616 [Exhibit 5]. The Criteria for Cell 1616 describes conservation within the Prado Flood Control Basin and the Santa Ana River located north of SR-91. Conservation within the Cell is not described in the southern portion of the Cell where Green River Road and Palisades Drive are located. Furthermore, the Project will construct the sewer facilities within existing developed areas that do not have conservation value for the Covered Species, including

that the sewer lines would be installed within Covered Road areas. As such, the MSHCP conservation requirements for Cell 1616 do not apply to the Project.

3.6 Criteria Cell 1706

The following is the Criteria for Cell 1706 as stated in the MSHCP:

> *Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 2. Conservation within this Cell will focus on riparian scrub, woodland, forest, associated with the Prado Flood Control Basin and the Santa Ana River and grassland. Areas conserved within this Cell will be connected to habitat proposed for conservation in Cells #1813 and #1616 to the south and north. Conservation within this Cell will range from 15%-25% focusing on the western portion of the Cell.*

A small portion (0.32 acre) of the proposed offsite sewer improvement area (Green River Road and Palisades Drive) is within the northern portion of Cell 1706 [Exhibit 5], which is not within the area described for conservation. Furthermore, the Project footprint within Cell 1706 is associated with existing developed portions of Green River Road and does have conservation value for the Covered Species, including that the sewer lines would be installed within Covered Road areas. As such, the MSHCP conservation requirements for Cell 1706 do not apply to the Project.

4.0 VEGETATION/LAND USE TYPES

The Project site supports the following vegetation/land-use types: Coast Live Oak Woodland, Elderberry Savannah (Elderberry Scrub), Coastal Sage Scrub, Riversidean Sage Scrub/Mixed Chaparral, Disturbed Mixed Chaparral, Lower Montane Mixed Chaparral, Mixed Chaparral, Southern Mixed Chaparral, Saltbush Scrub, Ruderal/Non-Native Grassland, Disturbed/Developed, and Residential/Urban/Exotic. Table 4-1 (onsite) and 4-2 (offsite) provides a summary of the vegetation types and their corresponding acreage. Descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 6.

Table 4-1. Vegetation/Land Use Types for the Project Site (Onsite)

Vegetation/ Land Use Type	Business Park Industrial – Permanent Impact (Acres)	Estate Residential (Industrial Grading) – Permanent Impact (Acres)	Oak Woodland Mitigation – Temporary Impact (Acres)	Avoidance Area/Deed Restriction (Acres)	Conservation – Avoided (Acres)	Total (Acres)
Coast Live Oak Woodland	0.72	0.41	0	0.11	3.50	**4.74**
Elderberry Savannah	0.03	0	0	0	0	**0.03**
Coastal Sage Scrub	0.01	0.11	0.07	0	0.87	**1.06**
Riversidean Sage Scrub/Mixed Chaparral	0	0	0	0	1.90	**1.90**
Disturbed Mixed Chaparral	0.21	0.95	0.19	0.44	13.80	**15.59**
Lower Montane Mixed Chaparral	0.11	0.30	0.19	0.13	0.21	**0.94**
Mixed Chaparral	3.44	4.64	0.18	2.70	30.73	**41.69**
Southern Mixed Chaparral	0	0	0	0	3.45	**3.45**
Saltbush Scrub	0.04	0	0	0	0	**0.04**
Disturbed/ Developed	16.07	0.81	0.96	0.10	0.31	**18.25**
Residential/ Urban/Exotic	1.62	0	0	0	0	**1.62**
Ruderal/Non-native grassland	28.28	6.93	0.98	2.78	26.00	**64.97**
Total	**50.53**	**14.15**	**2.57**	**6.26**	**80.77**	**154.28**

Table 4-2. Vegetation/Land Use Types for the Project Site (Offsite)

Vegetation/ Land Use Type	Business Park Industrial – Permanent Impact (Acres)	Green River Road – Permanent Impact (Acres)	Green River Road – Temporary Impact (Acres)	Green River Road/ Palisades Drive Sewer Improvements – Permanent Impact (Acres)	Fresno Road Repaving – Permanent Impact (Acres)	Total (Acres)
Coast Live Oak Woodland	0	0	0	0	0	**0**
Elderberry Savannah	0	0	0.02	0	0	**0.02**
Coastal Sage Scrub	0	0.02	0.02	0	0	**0.04**
Riversidean Sage Scrub/Mixed Chaparral	0	0	0	0	0	**0**
Disturbed Mixed Chaparral	0.03	0	0	0	0	**0.03**
Lower Montane Mixed Chaparral	0	0	0	0	0	**0**
Mixed Chaparral	0	0	0	0	0	**0**
Southern Mixed Chaparral	0	0	0	0	0	**0**
Saltbush Scrub	0.18	0.22	0.05	0	0	**0.45**
Disturbed/Developed	0.64	3.92	0	4.83	0.65	**10.04**
Residential/Urban/Exotic	0.12	0	0	0	0	**0.12**
Ruderal/Non-native grassland	0.69	0.06	0.17	0	0	**0.92**
Total	**1.66**	**4.22**	**0.26**	**4.83**	**0.65**	**11.62**

Coast Live Oak Woodland

The Project site supports approximately 4.74 acres of coast live oak woodland, all of which is onsite, of which 4.31 acres are associated with drainage features and are therefore identified as riparian vegetation for this analysis. This plant community is dominated with coast live oak (*Quercus agrifolia*) with non-native grasses in the understory. Of the 4.31 acres of riparian oak woodlands, 1.10 acres would be permanently impacted, 3.10 acres would be avoided as conservation, and 0.11 acre would be avoided as part of the Deed Restriction area.

Coastal Sage Scrub

The Project site supports approximately 1.10 acres of coastal sage scrub, of which 1.06 acres is located onsite and 0.04 acre offsite. Approximately 0.14 acre of coastal sage scrub (0.12 acre onsite and 0.02 acre offsite) will be permanently impacted, and approximately 0.09 acre will be temporarily impacted (0.07 acre onsite and 0.02 acre offsite). This plant community is dominated with California sagebrush (*Artemisia californica*), California brittlebush (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum)*, occasional individuals or small patches of deerweed (*Acmispon glaber*), and non-native grasses in the understory.

Disturbed Mixed Chaparral
The Project site supports approximately 15.62 acres of Disturbed Mixed Chaparral, of which 15.59 acres is located onsite and 0.03 acre is offsite. Approximately 1.38 acres (1.35 acres onsite and 0.03 acre offsite) will be permanently impacted. This plant community occurs primarily within the southwestern Project boundary. This plant community is dominated by laurel sumac (*Malosma laurina*), lemonade berry (*Rhus integrifolia*), California sagebrush, California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*).

Disturbed/Developed
The Project site supports approximately 28.29 acres of disturbed/developed lands, of which 18.25 acres is onsite and 10.04 acres is offsite. This land-cover type occurs primarily within the northern portions of the Study Area. Developed areas are areas where human disturbance has resulted in permanent modification of the existing landscape. These include paved areas, equestrian uses, Green River Road, and buildings. As such, this land cover type does not represent a natural plant community.

Elderberry Savannah
The Project site supports approximately 0.05 acre of Elderberry Savannah, of which 0.03 acre is located onsite and will be permanently impacted, and 0.02 acre offsite, which will be temporarily impacted. This plant community is dominated with blue elderberry (*Sambucus nigra* ssp*. caerulea)* with non-native grasses in the understory.

Lower Montane Mixed Chaparral
The Project site supports approximately 0.94 acre of Lower Montane Mixed Chaparral, all of which is onsite. The Project will permanently impact 0.60 acre of Lower Montane Mixed Chaparral. This plant community occur primarily within the western portion of the Study Area south of Fresno Road. This plant community is dominated by toyon (*Heteromeles arbutifolia)* in the shrub layer along with black sage (*Salvia mellifera*), and California sagebrush. The understory is sparsely vegetated.

Mixed Chaparral
The Project site supports approximately 41.69 acres of Mixed Chaparral, all of which is onsite. Approximately 8.08 acres will be permanently impacted and 0.18 acre will be temporarily impacted. This plant community occurs primarily on the southern portion of the Study Area. This plant community is dominated by laurel sumac, California sagebrush, California buckwheat, and chaparral yucca.

Residential/Urban/Exotic
The Project site contains 1.74 acres of Residential/Urban/Exotic vegetation, of which 1.62 acres is onsite and 0.12 acre of offsite, and all of which will be permanently impacted. Residential/Urban/Exotic vegetation includes areas where the vegetation predominately consists of introduced or escaped non-native horticultural plants, including trees, shrubs, flowers, and turf grass. This plant community occurs primarily along Green River Road, the eastbound SR-91 onramp, and along Dominguez Ranch Road. This plant community include eucalyptus (*Eucalyptus* sp.), Peruvian pepper tree

(*Schinus molle*), and fountain grass (*Pennisetum setaceum*).

Riversidean Sage Scrub/Mixed Chaparral
The Project site contains 1.90 acres of Riversidean Sage Scrub/Mixed Chaparral, all of which is onsite and will be avoided. This plant community occurs primarily within the southern portions of the Study Area. This plant community is dominated primarily with deerweed (*Acmispon glaber)*, black sage (*Salvia mellifera*), and California sagebrush.

Ruderal/Non-Native Grassland
The Project site supports approximately 65.89 acres of Ruderal/Non-Native Grassland, of which 64.97 acres is onsite and 0.12 acre is offsite. Approximately 36.13 acres will be permanently impacted (35.21 acres onsite and 0.92 acre offsite) and 1.15 acres will be temporarily impacted (0.98 acre onsite and 0.17 acre offsite). This plant community is present throughout the Study Area. As such, this plant community is dominated by non-native ruderal species including red brome (*Bromus madritensis* ssp*. rubens*), Russian thistle (*Salsola tragus*), foxtail barley (*Hordeum murinum*), Mediterranean grass (*Schismus barbatus*), black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), and coastal heron's bill (*Erodium cicutarium*).

Saltbush Scrub
The Project site supports approximately 0.49 acre of southern Saltbush Scrub, of which 0.04 acre is onsite and will be permanently impacted, and 0.45 acre is offsite, of which 0.30 acre will be permanently impacted and 0.05 acre will be temporarily impacted. This plant community occurs primarily on along the shoulders of Green River Road. This plant community is dominated by big saltbush (*Atriplex lentiformis*), with laurel sumac, California buckwheat, California sagebrush, California brittlebush, and coyote bush (*Baccharis pilularis*).

Southern Mixed Chaparral
The Project site supports approximately 3.45 acres of southern mixed chaparral, all of which is located onsite and will be avoided by the Project. This plant community occurs primarily on the southern portion of the Study Area. This plant community is dominated by lemonade berry, chamise (*Adenostoma fasciculatum*), California sagebrush, California buckwheat, laurel sumac, California buckwheat, and chaparral yucca.

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

Section 6.1.2 of the MSHCP establishes procedures through which the protection of Riparian/Riverine Areas and Vernal Pools would occur. The purpose of these procedures is to ensure that the biological functions and values of the riparian/riverine and vernal pool habitat areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained.

5.1 Riparian/Riverine

5.1.1 Methods

The MSHCP defines Riparian/Riverine Areas as "*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*." Regarding artificially created features, the MSHCP states "with the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions."

5.1.2 Existing Conditions and Results

The overall Project site, including the proposed Conservation Area, contains approximately 7.77 acres of MSHCP riparian/riverine areas (7.73 acre onsite and 0.04 acre offsite), including 4.34 acres supporting riparian vegetation communities (Riparian Oak Woodland and Riparian Elderberry Scrub), and 3.43 acres of upland non-riparian vegetation. The Project will impact approximately 3.65 acres of MSHCP Riparian/Riverine Areas, including 3.61 acres onsite and 0.04 acre offsite [Exhibit 7A – MSHCP Riparian/Riverine Areas Impact Map], of which 1.13 acres consists of riparian habitats (1.10 acres of oak woodlands and 0.03 acre of elderberry stands) and 2.52 acres consist of upland non-riparian vegetation. Approximately 0.18 acre of the impacts will be temporary, associated with the Oak Woodland Mitigation area, with all remaining impacts (3.47 acres) being permanent. Tables 5-1 (onsite) and 5-2 (offsite) below summarize the impacts to each MSHCP jurisdictional feature.

Table 5-1. MSHCP Riparian/Riverine Areas (Onsite)

Vegetation Strata	Business Park Industrial – Permanent Impact (Acres)	Estate Residential (Industrial Grading) – Permanent Impact (Acres)	Oak Woodland Mitigation – Temporary Impact (Acres)	Deed Restriction – Avoided (Acres)	Conservation – Avoided (Acres)	Total (Acres)
Riparian Woodland (Oak Woodand)						
Drainage B	0	0	0	0	0.38	**0.38**
Drainage B1	0	0	0	0	0.25	**0.25**
Drainage C	0.09	0.29	0	0.11	2.21	**2.70**
Drainage C1	0	0	0	0	0.20	**0.20**
Drainage C2	0	0	0	0	0	**0**
Drainage C3	0	0	0	0	0	**0**
Drainage C4	0.60	0.12	0	0	0.06	**0.78**
Subtotal	**0.69**	**0.41**	**0**	**0.11**	**3.10**	**4.31**
Riparian Scrub (Elderberry)	**0.03**	**0**	**0**	**0**	**0**	**0.03**
Upland Non-Riparian						
Drainage A	0.07	0.07	0.09	0.02	0.03	**0.28**
Drainage A1	0	0	0.09	0	0.05	**0.14**
Drainage A2	0.03	0	0	0	0	**0.03**
Drainage A3	0.01	0	0	0	0	**0.01**
Drainage A4	0.05	0.01	0	0	0	**0.06**
Drainage B	0.18	0.45	0	0.18	0.23	**1.04**
Drainage B1	0	0	0	0	0.02	**0.02**
Drainage B2	0.07	0.04	0	0.01	0	**0.12**
Drainage C	0.86	0.21	0	0	0.16	**1.23**
Drainage C1	0	0	0	0	0.05	**0.05**
Drainage C2	0	0	0	0	0.03	**0.03**
Drainage C3	0	0.01	0	0	0.04	**0.05**
Drainage C4	0.22	0.02	0	0	0.09	**0.33**
Subtotal	**1.49**	**0.81**	**0.18**	**0.21**	**0.70**	**3.39**
TOTAL	**2.21**	**1.22**	**0.18**	**0.32**	**3.80**	**7.73**

Table 5-2. MSHCP Riparian/Riverine Areas (Offsite)

Vegetation Strata	Business Park Industrial (Acres)
Upland Non-Riparian	
Drainage A	0.02
Drainage B	0.02
TOTAL	**0.04**

Exhibit 7B displays riparian/riverine areas based on the corresponding vegetation communities. The 3.65 acres of total impacts to riparian/riverine areas includes 1.13 acres of riparian vegetation, of which 1.10 acres consists of coast live oak woodland and 0.03 acre of elderberry scrub. The 2.52 acres of upland non-riparian vegetation consists of disturbed/developed areas, ruderal/non-native grassland, residential/urban/exotic, saltbush scrub, and chaparral communities.

The Project will mitigate permanent impacts to 3.47 acres of MSHCP riparian/riverine through a combination of onsite restoration and preservation, and offsite mitigation (the purchase of available mitigation credits at the Riverpark Mitigation Bank), altogether totaling 11.06 acres of mitigation. The onsite mitigation will consist of restoring 2.57 acres of riparian oak woodland in the western portion of the Project site. This area was previously intended as a wildlife movement path to support the goals of PCL-1; however, with the re-designation of PCL-1 to the west, the 2.57-acre area is now proposed to be planted with coast live oak trees and associated species to create a contiguous area of oak woodland habitat. The western portion of the site currently contains a riverine complex (Drainage A), the lower portion of which is in the proposed mitigation area. The Project will eliminate the lower portion of the existing drainage complex to construct the Business Park Industrial Project and the manufactured slopes to south. However, the upper watershed will be avoided in the MSHCP Conservation area and the Deed Restriction area and flows/runoff from Drainage A will be intercepted and routed to the proposed Oak Woodland Mitigation area. A meandering stream area will be created within the mitigation area to collect the flows/runoff and provide hydrology at a minimum 1:1 ratio over the 1.10 acres of impacts to Riparian Oak Woodland.

The 1.10 acres of Riparian Oak Woodland habitat to be impacted consists of 15 oak trees spread out over eight patches of vegetation between two drainage features. Each patch of mapped oak woodland habitat to be impacted consists of one or two oak trees and associated understory. The proposed mitigation will consist of 2.57 acres of contiguous habitat in one area, providing biological function for MSHCP species resulting in a biologically superior condition compared with the existing conditions. Furthermore, oak seedlings will be planted within the mitigation area to replace the impacted riparian oak trees at a minimum 10:1 ratio, resulting in a minimum of 150 oak seedlings. An Oak Tree Mitigation Plan will be prepared for the Oak Woodland

Mitigation area and submitted to the RCA and Wildlife Agencies for review and approval. The Oak Tree Mitigation Plan will address items discussed with the Wildlife Agencies during a meeting held on October 10, 2023.

In addition, the Project will preserve 3.80 acres[1] of riparian/riverine areas within the proposed MSHCP Conservation Area, which includes 3.10 acres of riparian oak woodlands and 0.70 acre of upland non-riparian riverine areas. The balance of mitigation will consist of the purchase of 4.69 acres of mitigation bank credits intended to be obtained from the Riverpark Mitigation Bank. A DBESP analysis has been included with this Consistency Analysis, which will subsequently be submitted to the Wildlife Agencies for review and approval upon the issuance of JPR Findings by the RCA. The following table summarizes the proposed mitigation ratios and types of mitigation credits organized by vegetation strata. The DBESP analysis includes an equivalency analysis to address the loss of functions at the Project site to be offset by the proposed mitigation.

Table 5-3. Proposed Mitigation for Riparian/Riverine Permanent Impacts

Vegetation Strata	Impact Acreage	Mitigation Types and Ratios	Total Mitigation Acreage
Riparian Oak Woodland	1.10	• 2.57 acres of onsite restoration (2:1 re-establishment) • 3.10 acres of onsite preservation	5.67
Riparian Elderberry Scrub	0.03	• 0.09 acre of offsite re-establishment at Riverpark (3:1 ratio)	0.09
Upland Non-Riparian	2.30	• 4.60 acres of offsite re-establishment (2:1) at Riverpark • 0.70 acre of onsite preservation	5.30
Total	**3.43**		**11.06**

[1] Another 0.32 acre of riparian/riverine areas (0.11 acre riparian and 0.21 acre non-riparian) will be at least temporarily avoided and protected by the Deed Restriction, but the Project is not proposing preservation credit for this acreage.

5.2 Vernal Pools

5.2.1 Methods

The MSHCP defines vernal pools 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."

The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the way the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.

As part of the jurisdictional waters delineation, GLA biologists/regulatory specialists evaluated the Project site for vernal pools between March 7 and June 5, 2020. The biologists inspected the site for any ponding or evidence of ponding (e.g., cracked soils, hydrophytic vegetation) or depression features that could become inundated, including natural depressions and artificial depressions such as tire ruts. GLA's inspection specifically included an old concrete basin located in the eastern portion of the property.

5.2.2 Existing Conditions and Results

The Project site does not support any depression wetlands, i.e., MSHCP vernal pools. The majority of the site consists of steep topography that is not conducive to prolonged inundation. The flatter portions of the site south of Green River Road are actively disturbed/maintained and do not support depressions capable of prolonged inundation. The concrete basin is not a wetland, and therefore not a vernal pool, as it does not contain hydric soils or hydrophytic vegetation. Regarding hydrology, the basin being lined with concrete was designed to hold water; however, the bottom of the basin is cracked/broken in multiple places and sunken, such that water drains through the bottom and does not accumulate as the basin was designed.

5.3 Fairy Shrimp

5.3.1 Methods

In conjunction with surveys for any seasonally ponded depressions within the proposed Project site, GLA inspected the site for habitat with the potential to support listed fairy

shrimp. Fairy shrimp can include vernal pools and other natural, non-vernal pool seasonal pond, as well as artificially created features such as stock ponds, and disturbed features such as tire ruts and other disturbance-related depressions.

5.3.2 Existing Conditions and Results

GLA did not observe potential habitat for fairy shrimp, including natural ponding depressions or artificial/disturbed features such as stock ponds and tire ruts. GLA specifically evaluated the concrete basin for the potential to support fairy shrimp, but as noted above the bottom of the basin is broken and sunken, and the basin does not hold water as the basin was designed for. As such, the basin does inundate in most years to an extent that would provide the minimum hydrology to support fairy shrimp life cycles. Aerial imagery from January 2023 shows what appears to be some inundation, which likely persisted intermittently due to above-average rainfall. However, inundation is not observed in aerial imagery preceding January 2023. Furthermore, aside from some accumulation of organic material and wind-blown soil particles, the concrete-lined basin does not contain an earthen substrate that would support fairy shrimp.

5.4 Riparian Birds

The MSHCP requires habitat assessments and focused surveys (if suitable habitat) for least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo. The Project will impact oak woodland habitat (1.09 acres) and a small amount of an elderberry stand (0.03 acre) that are classified as riparian habitat. However, these areas are not suitable habitat for the riparian bird species due to a lack of adequate vegetation structure, hydrology and other factors. As part of the studies conducted for the overall Green River Ranch Specific Plan, GLA biologists incidentally detected a single least Bell's vireo in April 2020 in elderberry scrub habitat north of Green River Road on lands that are outside of the Business Park Industrial Project footprint, but within lands planned for a future commercial development project. Upon detecting the vireo individual, GLA biologists proceeded to complete protocol surveys for the vireo within the commercial property, while also checking woodland areas within the Business Park Industrial Project footprint, although as noted above the vireo was not expected to occur in the Business Park Industrial Project footprint due to a lack of suitable habitat. The Business Park Industrial Project site contains the oak woodland habitat that does not exhibit an understory and vegetation structure to support vireo, and 0.05-acre area of elderberry scrub (0.03 acre of permanent impacts south of Green River Road in the Industrial Facility footprint and 0.02 acre of temporary impacts north of Green River Road consisting of sparse elderberry shrubs with no supporting understory/structure for vireos. Conversely, the commercial development property contains 0.50 acre of elderberry scrub consisting of larger, contiguous stands of vegetation with a density and vegetation structure capable of supporting vireos.

Focused surveys were conducted on May 5, 15 and 25, June 4, 15 and 29, and July 10 and 23, 2020. Pursuant to the survey guidelines, the surveys were conducted between sunrise and 11:00 a.m. Weather conditions during the surveys were

conducive to a high level of bird activity. Table 5-4 summarizes the vireo survey visits.

Table 5-4. Summary of Least Bell's Vireo Surveys

Survey Date	Biologist	Start/End Time	Start/End Temperature (degree F)	Wind Speed Range (mph)	Cloud Cover (%)
5/5/20	JF	0645/0951	60/71	0-4	0
5/15/20	JF	0710/1100	61/74	2-3	50
5/25/20	JF	0524/0915	58/66	0-2	25
6/4/20	JF	0736/1100	64/78	0-4	0
6/15/20	SC	0615/0930	62/70	0-2	0
6/29/20	JF	0644/1058	62/73	3-4	50
7/10/20	JF	0545/1012	65/84	0-2	0
7/23/20	JF	0546/1100	63/78	2-6	25

JF = Jason Fitzgibbon; SC = Stephanie Cashin

The single vireo was detected within elderberry scrub habitat north of Green River Road (depicted on Exhibit 7A and 7B); however, due to the traffic noise from the adjacent freeway and from Green River Road, it was very difficult to hear and therefore could not be confirmed during most of the survey visits. As such, it could not be determined whether the vireo was associated with a pair, and whether it attempted to nest or successfully nested. Furthermore, vireos were not detected within the Project site, and as noted above, the Project site does contain habitat with the potential to support breeding vireos.

The Green River Ranch Specific Plan includes the development of both the Business Park Industrial Project and the future commercial development and having received Findings from the RCA and Wildlife Agencies for the Criteria Refinement to move PCL-1, the Specific Plan does not consider that the commercial property would be part of the MSHCP Reserve or that the resources at the commercial site would otherwise be avoided. As such, the Business Park Industrial Project does not consider edge effects post-construction to resources that might occur on lands north of Green River Road designated by the Specific Plan for future commercial development. For example, future lighting along Green River Road and in the adjacent Business Park Industrial Facility is not necessarily designed to prevent light spillage into lands north of Green River Road. That said, because the Business Park Industrial Project (currently proposed through a Precise Plan application with the City of Corona) and the future commercial development (not currently proposed and that would be subject to a future Precise Plan review process by the City of Corona) are proceeding as separate projects on different schedules for MSHCP approval, the Business Park Industrial Project must consider a scenario of the least Bell's vireo being seasonally present during construction of the Project and for some period once the Business Park Industrial Project is completed.

Because the elderberry scrub where the vireo was detected in 2020 is immediately adjacent to the disturbance limits associated with the Green River Road improvements, the Business Park Industrial Project will consider the potential for edge effects during construction, including from factors such as noise, light, dust emissions, and human presence (trespassing). The Project will need to implement measures to avoid or minimize edge effects, where applicable.

If construction will occur within 300 feet of potential vireo habitat between March 15 and August 31, a biologist shall determine whether vireo individuals are present within the adjacent habitat. If work will start prior to March 15 and continue into the vireo season, or will start between March 15 and April 30, the biologist shall survey the adjacent habitat weekly for eight weeks[2] starting on or around March 15 until vireo are detected, or until eight visits are completed and the vireo is confirmed absent. If construction work will start after April 30, then surveys will start on or around April 10 (the formal start of the vireo survey period), and surveys will follow the survey intervals as stated above.

If vireo individuals are detected, the biologist will determine necessity and applicability of measures to address edge effects for construction activities occurring within 300 feet of occupied vireo habitat to protect the vireo. At minimum the following are recommended.

1) Noise – Given the proximity of the vireo habitat to the existing Green River Road and the adjacent SR-91, there is already an existing noise baseline from heavy traffic use, and it is possible that construction noise would not exceed that baseline. The Project proponent will retain a qualified biologist to perform noise monitoring to determine the ambient noise level at the habitat edge without construction activities occurring within 300 feet of the habitat edge, and then determine noise levels while construction activities are occurring. If it is determined that with construction, the noise levels exceed the ambient levels, then noise attenuation measures may be implemented, including the construction of a temporary noise attenuation barrier (sound wall) along the disturbance limits north of Green River Road. If it is determined that noise levels cannot be attenuated, then the specific construction activities resulting in the noise will need to be temporarily ceased until August 31, or prior if it is determined through surveys that the vireo are no longer present.
2) Lighting – Any night lighting needed during construction within 300 feet of occupied vireo habitat will be down shielded or directed away from the vireo habitat to prevent the illumination of the adjacent habitat.
3) Dust Emissions – The Project, as a part of standard best management practices (BMPs) pursuant to South Coast Air Quality Management District Rule 403, will introduce dust control measures for the duration of construction

[2] The least Bell's vireo survey guidelines require a minimum of eight visits with at least 10 days between each survey visit to determine absence. However, as this measure would be implemented relative to adjacent construction, the measure proposes more frequent (weekly) survey visits as opposed to a longer duration between visits.

activities to minimize any dust-related effect on adjacent vireos.

4) Trespassing – prior to the start of construction activities along the northern side of Green River Road, the edge of the disturbance limits adjacent to the vireo habitat will be demarcated with orange construction fencing to prevent trespassing into the adjacent habitat. In addition, the Project proponent will implement an Environmental Awareness Training program prior to the start of construction to advise workers of sensitive biological areas adjacent to the development footprint, including the habitat areas north of Green River Ranch Road.

6.0 PROTECTION OF NARROW ENDEMIC PLANT SPECIES (SECTION 6.1.3)

Volume I, Section 6.1.3 of the MSHCP requires that within identified Narrow Endemic Plant Species Survey Areas (NEPSSA), site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present. The Study area occurs within the MSHCP NEPSSA Survey Area 7, which identifies the following target species:

- San Diego ambrosia
- Brand's phacelia
- San Miguel savory

6.1 Methods

GLA biologists conducted general and focused plant surveys on March 2 and April 24, 2020. Surveys were performed by GLA botanist Jillian Stephens and GLA biologist Jason Fitzgibbon. Surveys were conducted in accordance with accepted botanical survey guidelines. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat.

6.2 Existing Conditions and Results

GLA biologists detected a total of 116 plant species at the Project site, the majority of which consisted of annual vegetation including native and non-native forbs and grasses. A floral compendium is included as Appendix D. Annual precipitation for 2019-2020 rainfall season totaled approximately 13 inches, with the majority of the rainfall occurring in November (2.70 inches) and December (2.90 inches) 2019, and March (3.90 inches) and April (3.50 inches) 2020. Minimal rainfall occurred in January and February 2020, with approximately 0.10 inch in each of those months. Although there was minimal rainfall in January and February 2020, the nearly six inches of rainfall in November and December 2019 coupled to mild temperatures in January (63ºF average and 52ºF to 79ºF range) and February (69ºF average and 57ºF to 84ºF) 2020 allowed for ample germination and flowering yielding to good initial plant

detections on March 2. Then an additional four inches of rainfall in March 2020 and another 3.50 inches in early April 2020 allowed for continued good detections during the April 24 survey visit.

GLA did not detect any of the Narrow Endemic Plant species within or adjacent to the Project site during focused plant surveys performed in 2020. Of the three target species, none of the species were expected to occur within the Project's development footprint due to a lack of suitable habitat. The following is a discussion of each of the species.

6.2.1 San Diego Ambrosia

San Diego ambrosia is a member of the sunflower family known to occur from Riverside and San Diego Counties as well as Baja California and is known to bloom from April through October. San Diego ambrosia occurs in open floodplain terraces or on in the watershed margins of vernal pools. This species occurs in a variety of associations that are dominated by sparse non-native grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas (Munz 1974; Reiser 2001). The closest known locales of San Diego ambrosia to the Project site are in the Alberhill area of Lake Elsinore, including a locale near Nichols Road that GLA biologists confirmed in April 2020, including on April 23, 2020, which was the day before the second plant survey that was conducted for the Project site. GLA biologists determined that the Project site does not contain suitable habitat for San Diego ambrosia, including a lack of floodplain terrace and alkali habitats that are associated with the Lake Elsinore locales. Furthermore, the San Diego was not detected at the Project site during focused surveys.

6.2.2 Brand's Phacelia

Brand's phacelia is a small plant in the borage family. Suitable habitat for Brand's phacelia includes coastal dunes and/or coastal scrub in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers and is restricted to clay soils at elevations between 0 and 400 meters. The known locales in Riverside County are near the Santa Ana River in the Santa Ana Wilderness Area and is generally regarded with being restricted to benches along the Santa Ana River. GLA biologists determined that the Project site does not contain suitable habitat for Brand's phacelia, as the site is removed from the Santa Ana River and slopes up into quickly into grasslands and scrub habitats that transition into chaparral and woodland habitats. Furthermore, Brand's phacelia was not detected at the Project site during focused surveys.

6.2.3 San Miguel Savory

San Miguel savory is a small plant in the mint family associated with rocky, gabbroic and metavolcanic substrates in coastal sage scrub, chaparral, cismontane woodland, riparian woodland, and valley and foothill grasslands. Riverside County locales are known from the Santa Ana Mountains and foothills, including locales from the Santa

Rosa Plateau. GLA biologists determined that the lands within the Project's proposed MSHCP Conservation area and the Avoided Area (Deed Restriction) contain potential habitat for San Miguel savory, but the species is not expected to occur within the Project's development footprint due to a lack of suitable habitat. However, San Miguel savory was not detected at the Project site during focused surveys, including in the proposed MSHCP Conservation.

7.0 ADDITIONAL SURVEY NEEDS AND PROCEDURES (SECTION 6.3.2)

Pursuant to MSHCP *Volume I, Section 6.3.2*, the MSHCP requires habitat assessments and focused surveys (within areas of suitable habitat) for certain species as determined by a project's occurrence in a designated survey area, including Criteria Area Plant Species Survey Area (CAPSSA), burrowing owl survey area, amphibian survey area, and mammal survey area.

7.1 Criteria Area Plant Species

The Project site does not occur in a Criteria Area Plant Species Survey Area. As such focused surveys are not required for Criteria Area Plants.

7.2 Amphibians

The Project site is not located within an amphibian survey area. As such, focused surveys are not required for designated amphibian species.

7.3 Burrowing Owl

The majority of Project site is within the survey area for the burrowing owl (*Athene cunicularia*), although portions of the development footprint are not within the survey area. The MSHCP requires that the Project evaluate impacts to the burrowing owl through habitat assessments/focused surveys at a minimum for the portions of the site within the survey area.

7.3.1 Methods

GLA biologist Jason Fitzgibbon evaluated the Project site for burrowing owls in accordance with the MSHCP Burrowing Owl Survey Instructions (RCA 2006), which stipulate that four focused-survey visits be conducted between March 1 and August 31. The survey instructions are divided into three components, including Step I (habitat assessment, Step II-A (focused burrow survey), and Step II-B (focused burrowing owl survey).

The initial habitat assessment (Step I) and focused burrow survey (Step II-A) was conducted March 2, 2020. Suitable habitat was determined based on the presence of burrows, while considering vegetation densities and topography. Areas of dense

vegetation preventing access were excluded from burrow mapping and focused surveys. Exhibit 8 (Burrowing Owl Survey Results Map) depicts the location of burrow complexes mapped within the Project footprint.

Step II-B focused burrowing owl surveys were conducted on March 3, April 16, April 24, and May 4, 2020, which included portions of the site both inside and outside of the MSHCP survey area. Focused surveys were performed for burrowing owls for most of the proposed impact footprint based on general habitat suitability. Focused surveys were concentrated in the northern portion of the footprint and additional areas where burrows were mapped. Uniform transects were utilized for the topographically flatter (northern) portion of the footprint where such transects were able to be maintained. Exhibit 8 identifies the transects for the flatter portion of the site that represents the relatively better-quality habitat and suitable burrows that were mapped during the surveys. Transects were spaced between 22 feet and 65 feet apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 320 feet along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. For the rest of the Project footprint (southern portion) with more complex topography, surveys were performed on foot following meandering routes, focusing on areas where burrows were mapped, specifically within the canyon in the center portion of the property. Exhibit 8 also depicts a 500-foot visual survey area around the Project site. The 500-foot visual survey area was at least inspected with binoculars but was also accessed on foot where feasible.

The 2006 MSHCP Burrowing Owl Survey Instructions identify that surveys are to be conducted within a timeframe from one hour before sunrise to two hours after sunrise, or from two hours before sunset to one hour after sunset. The first three focused survey visits were conducted in the morning, with the fourth visit conducted during the afternoon survey window. Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Additionally, all work was performed more than 5 days after a rain event. Refer to Table 7-1 below for survey condition details.

Table 7-1. Summary of Burrowing Owl Surveys

Survey Date	Biologist	Sunrise or Sunset	Survey Window	Start/End Temperature (degree F)	Wind Speed Range (mph)	Cloud Cover (%)
3/3/20	JF	0618	0518 - 0818	53/69	0-2	0
4/16/20	JF	0619	0519 - 0819	51/58	5-7	100
4/24/20	JF	0610	0510 - 0810	63/79	5-7	0
5/4/20	JF	1939	1739 - 2139	73/69	5-2	0

JF = Jason Fitzgibbon

7.3.2 Existing Conditions and Results

No burrowing owls were detected within the Project site. However, because of the presence of suitable habitat and pursuant to MSHCP requirements for the burrowing owl (objective 6 of the MSHCP objectives for the burrowing owl), a qualified biologist will perform a pre-construction burrowing owl survey for the Project site prior to initial ground-disturbing activities. The following measure will apply to the pre-construction survey:

- A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, grading, tree removal, site watering, equipment staging) 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 that burrowing owl have not colonized the site since it was last disturbed. If burrowing owl is found, the same coordination described above will be necessary.

7.4 Mammals

The Project site is not located within a mammal survey area. As such, focused surveys are not required for designated small mammals.

8.0 INFORMATION ON OTHER SPECIES

8.1 Delhi Sands Flower-Loving Fly

The Project site is not located within Delhi soils mapped within the MSHCP baseline data, and therefore habitat assessments/focused surveys are not required for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*).

8.2 Coastal California Gnatcatcher

Although protocol-level surveys for the coastal California gnatcatcher (*Polioptila californica californica*) are not required per the MSHCP, Permittees are required (per the USFWS Special Terms and Conditions for Permit TE-088609-0) to avoid clearing California gnatcatcher-occupied habitat in the Criteria Area and in PQP lands between March 1 and August 15. As noted above, the entire Project site is in the Criteria Area. The majority of the Project's development footprint does not contain suitable habitat for the gnatcatcher, and the species as not been previously detected at the site. However, the southern portion of the development footprint contains components of Riversidean sage scrub mixed in with chaparral that provides some habitat opportunities for gnatcatcher.

If feasible, habitat clearing, grubbing, grading, and associated construction actions will be timed to avoid the active breeding season for California gnatcatchers, defined for purposes of the MSHCP as March 1 to August 15 per the USFWS Special Terms and Conditions for Permit TE-088609-0. If the gnatcatcher breeding season avoidance is not possible, protocol-level focused surveys for coastal California gnatcatcher, consistent with the USFWS survey guidelines, will be performed prior to any vegetation removal or other site disturbance

9.0 GUIDELINES PERTAINING TO THE URBAN/WILDLANDS INTERFACE (SECTION 6.1.4)

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Potential indirect effects associated with development include water quality impacts associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary indirect effects may also occur resulting from short-term construction-related activities.

The Project is not expected to result in significant indirect impacts to special-status biological resources with the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP). These Guidelines are intended to address indirect effects associated with locating projects

(particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the Guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measure consistent with the MSHCP guidelines to address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasives;
- Barriers; and
- Grading/Land Development.

9.1 Drainage

Proposed projects in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to runoff and water quality during construction. Furthermore, the Project will drain away from the MSHCP Conservation Area to be located to the south and will drain towards Green River Road.

9.2 Toxics

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction. Furthermore, the Project will drain away from the MSHCP Conservation Area to be located to the south and will drain towards Green River Road. As such, toxics will not be introduced to the MSHCP Conservation Area as a result of

project-generated runoff.

9.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. All night lighting within the project footprint will be down-shielded such that the Project will not illuminate the adjacent open space, including the western wildlife connection path. This will ensure that ambient lighting within the MSHCP Conservation Area does not increase post-project. There will be lighting within the business park industrial development; however, there will not be any lighting the within the manufactured slope areas (Estate Residential parcel) that abut the Avoided Area (Deed Restriction) or the proposed MSHCP conservation. Furthermore, lighting at the edges of the business park industrial development will be down-shielded and will not illuminate the adjacent Avoided Area (Deed Restriction) or the proposed MSHCP conservation, including the oak woodland mitigation area. If it is decided that an Estate Residential project would proceed in the future, then as part of a future new JPR or JPR amendment, any additional night lighting associated with the Estate Residential project would be reviewed by the RCA and Wildlife Agencies for approval. Furthermore, lighting plans for those portions of the project that abut proposed or existing conservation lands will be provided to the RCA and Wildlife Agencies for review and approval prior to issuance of a grading permit.

9.4 Noise

Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards. The proposed Business Park Industrial Project is not expected to project noise upwards into the MSHCP Conservation Area to the south based on the topography post-project.

Section 5.4 above discusses the potential for the least Bell's vireo to occur within riparian habitat north of Green River Road during construction, including improvements to Green River Road as well as the construction of the Business Park Industrial Project south of the road. As described in Section 5.4, if vireos are detected north of Green River Road during construction, the Project proponent will retain a qualified biologist to perform noise monitoring to determine the ambient noise level at the habitat edge without construction activities occurring within 300 feet of the habitat edge, and then determine noise levels while construction activities are occurring. If it is determined that with construction, the noise levels exceed the ambient levels, then noise attenuation measures may be implemented, including the construction of a temporary noise attenuation barrier (sound wall) along the disturbance limits north of Green River Road. If it is determined that noise levels cannot be attenuated, then the specific construction

activities resulting in the noise will be temporarily ceased until August 31, or prior if it is determined through surveys that the vireo are no longer present.

9.5 Invasives

When approving landscape plans for Development that is proposed adjacent to the MSHCP Conservation Area, permittees shall consider the invasive, non-native plant species listed in *Table 6-2* and shall require revisions to landscape plans (subject to the limitations of their jurisdiction) to avoid the use of invasive species for the portions of Development that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

The Project will not include species listed in MSHCP Table 6-2 in the Project's landscaping.

9.6 Barriers

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms.

Wildlife fencing will be constructed along the western and southern edges of the Project site to direct wildlife to the west along the re-designated PCL-1 Route in B Canyon. The location of the proposed fencing is depicted on Exhibit 3. The fence will start at the eastern property boundary, extending west along the limits of the proposed MSHCP Conservation until the fence reaches the western boundary shared with the existing ARL. Then the fence will turn north along the property boundary to the terminus of Fresno Road, then northwest where the fence will terminate at the limits of Caltrans' easement for SR-91. The fence is proposed to be chain link (at least 8 feet tall) and will include one-way swing gates to allow for wildlife escape access to the open space to the south and west.

Fencing plans will be provided to the RCA and Wildlife Agencies for review and approval prior to issuance of a grading permit.

Also related to the detection of least Bell's vireo north of Green River Road, the edge of the disturbance limits adjacent to the offsite riparian/vireo habitat will be demarcated with orange construction fencing to prevent trespassing/encroachment into the adjacent habitat. In addition, the Project proponent will implement an Environmental Awareness Training program prior to the start of construction to advise workers of sensitive

biological areas adjacent to the development footprint, including the habitat areas north of Green River Ranch Road.

9.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. The graded slopes within the Estate Residential parcel will not extend into the MSHCP Conservation Area. Instead, the above-referenced Residentially-Zone Open Space will serve as a buffer between the grading for the Industrial Project and the MSHCP Conservation Area. Furthermore, as described above a deed restriction will be placed over the Residentially-Zone Open Space to protect the resources in that area until such time as it is determined whether an Estate Residential project might proceed in the future. The future removal of the deed restriction, if applicable, would be subject to a JPR amendment.

10.0 BEST MANAGEMENT PRACTICES

As applicable, construction of the Project will implement best management practices identified in Volume I, Appendix C of the MSHCP. The following are a list of relevant BMPs that will be addressed by the Project:

- A condition shall be placed on grading permits requiring a qualified biologist to 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.
- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
- Projects should be designed to avoid the placement of equipment and personnel within a stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.
- Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian birds identified in MSHCP Global Species Objective No. 7.
- 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, FWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

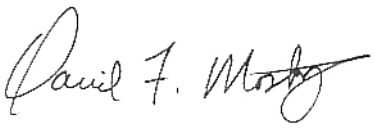
- The qualified project biologist shall monitor construction activities for the duration of the project (where applicable) to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
- To avoid attracting predators 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).
- 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.
- The Permittee 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.

11.0 CONCLUSION

As outlined above, the proposed Project would be consistent with the biological requirements of the MSHCP pertaining to the Project's relationship to Reserve Assembly, as well as *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), *Section 6.3.2* (Additional Survey Needs and Procedures), and *Section 6.4* (Fuels Management).

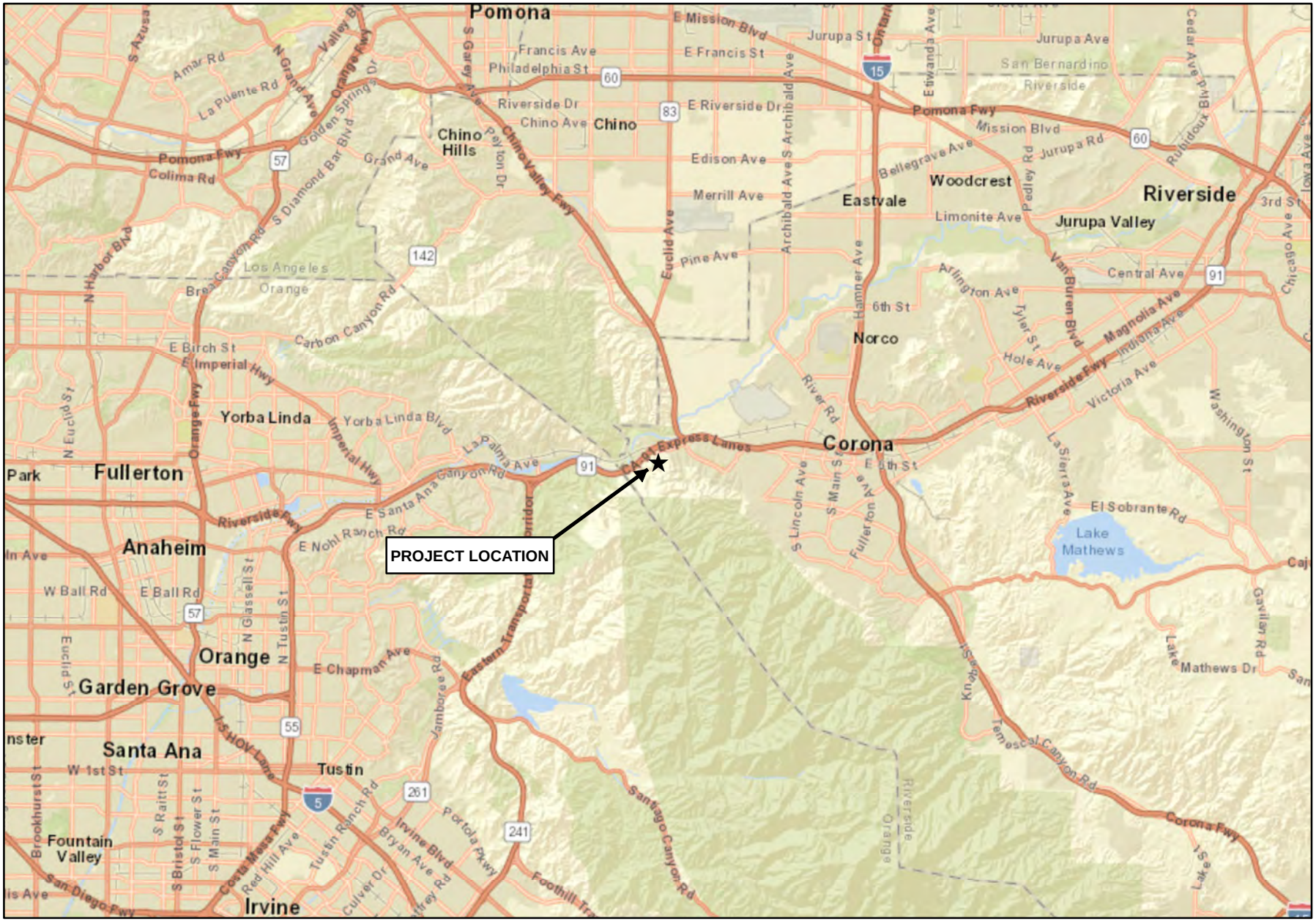
12.0 CERTIFICATION

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

SIGNED:  _____ DATE: 08/29/24

p:0544-04e.MSHCP consistency analysis.docx

Source: ESRI World Street Map

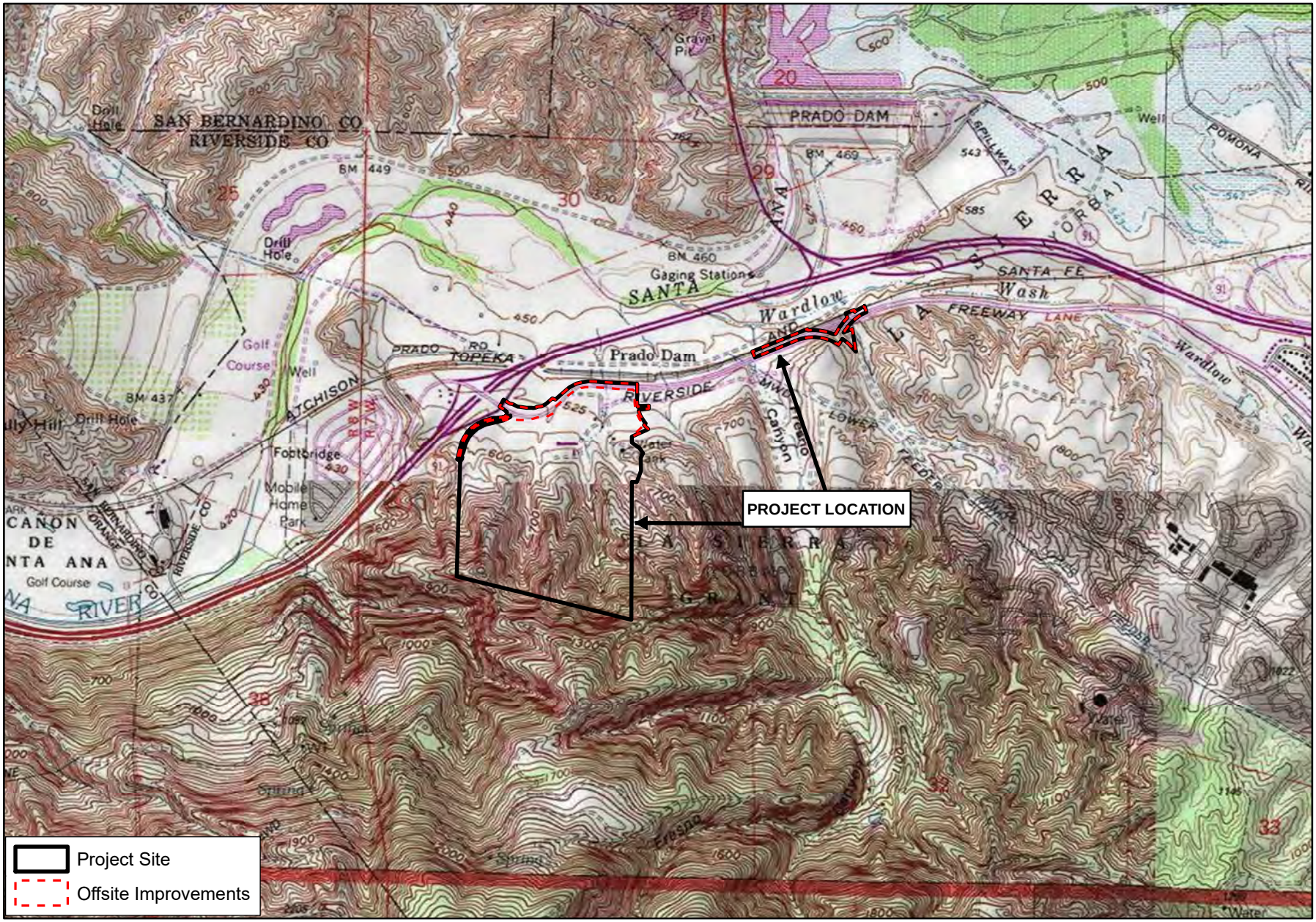


GREEN RIVER RANCH INDUSTRIAL PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Prado Dam & Black Star Canyon, CA quadrangles

N

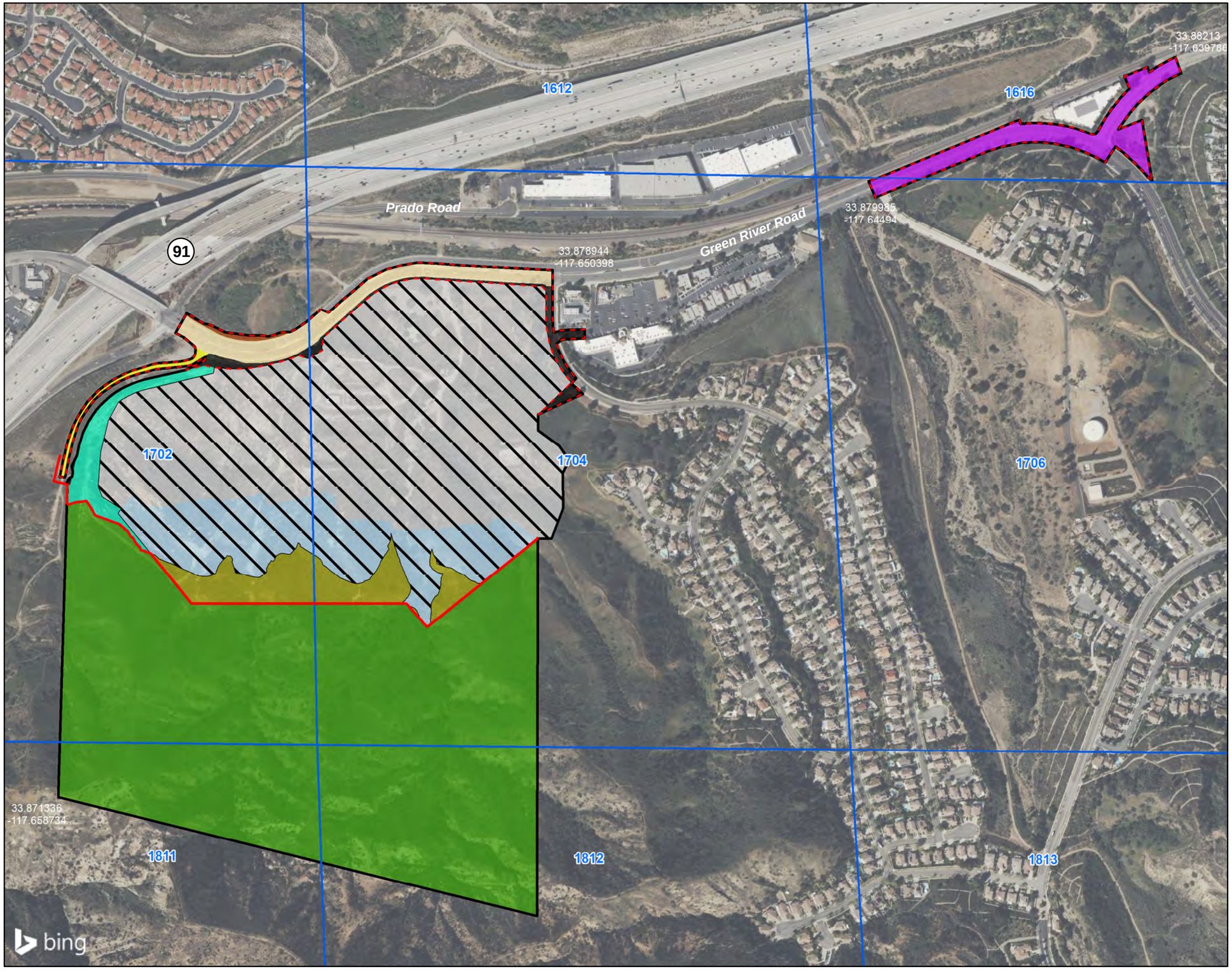
0 1,000 2,000 4,000 Feet

GREEN RIVER RANCH INDUSTRIAL PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



- Project Site
- Offsite Improvements
- Fuel Modification Limits
- Criteria Cells
- Proposed Wildlife Fencing
- Business Park Industrial (Onsite, Permanent)
- Estate Residential Zoning – Industrial Project Grading (Onsite, Permanent)
- Avoidance Area (Deed Restriction)
- Proposed MSHCP Conservation
- Oak Woodland Mitigation (Onsite, Temporary)
- Business Park Industrial (Offsite, Permanent)
- Fresno Road (Offsite, Permanent)
- Green River Road (Offsite, Permanent)
- Green River Road (Offsite, Temporary)
- Utility Improvement (Offsite, Permanent)

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 6, 2024

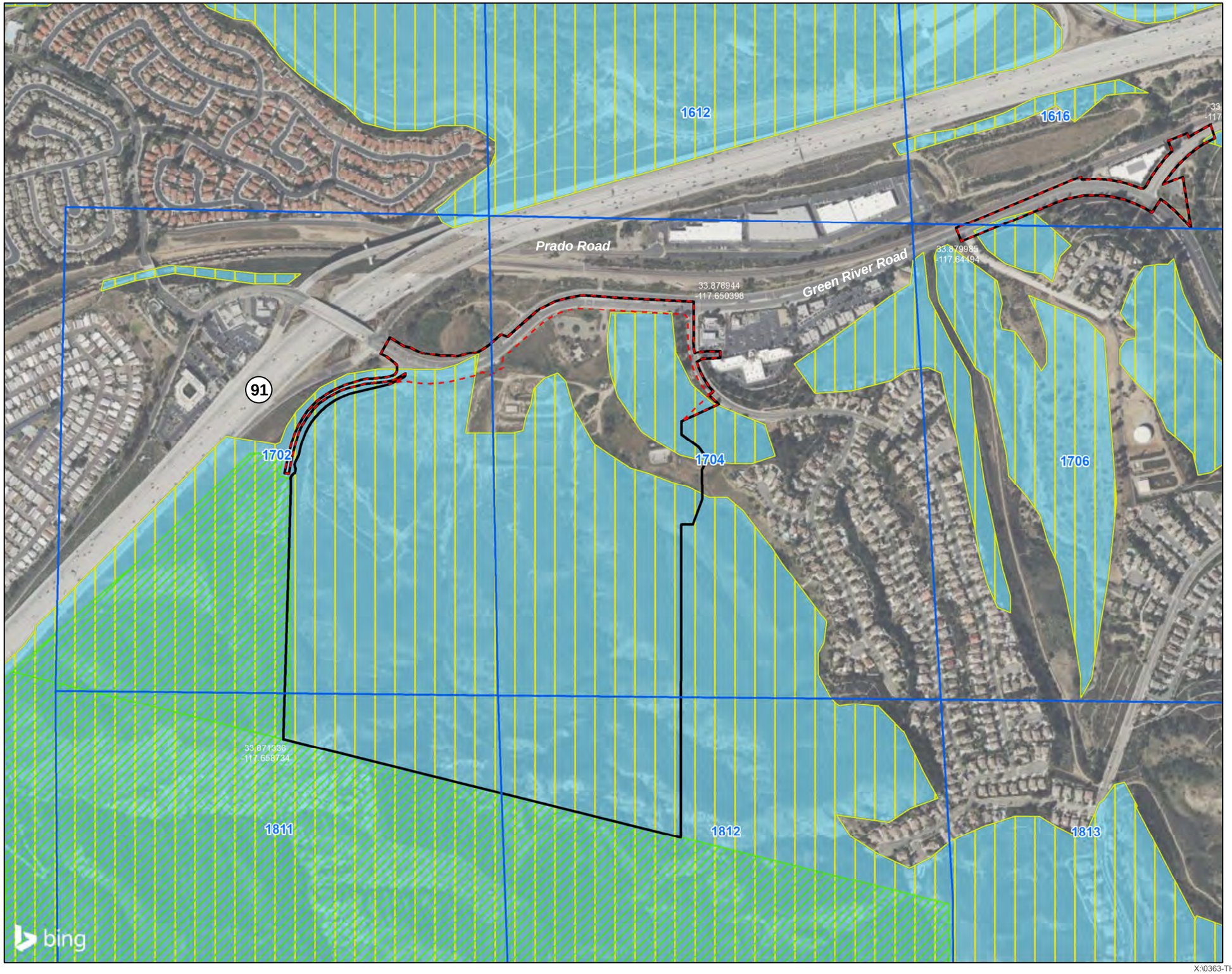
GREEN RIVER RANCH INDUSTRIAL PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\0363-THE REST\0544-04GREN\544-4_GIS\544-4_SitePlanDBESP.mxd



- Project Site
- Offsite Improvements
- Criteria Cells
- Existing Conserved Lands
- Narrow Endemic Plant Species Survey Areas
- Species Survey Areas Burrowing Owls

N

0 300 600 1,200

Feet

1 inch = 600 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: April 8, 2024

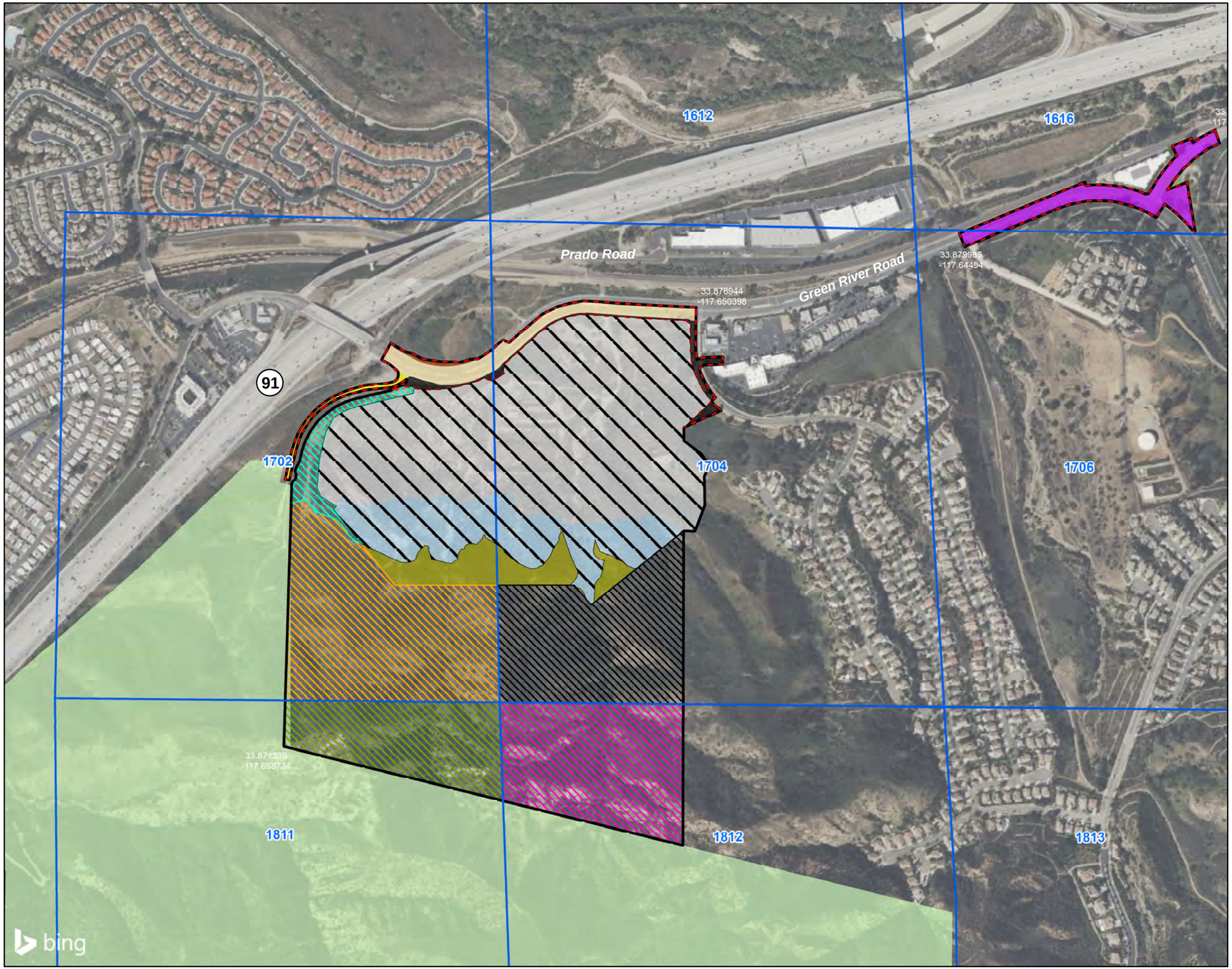
GREEN RIVER RANCH INDUSTRIAL PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\0363-THE REST\0544-04GREN\544-4_GIS\MSHCP_GIS\544-4_MSHCPOverlay_DBESP.mxd



- Project Site
- Offsite Improvements
- Fuel Modification Limits
- Criteria Cells
- Existing Conserved Lands
- Business Park Industrial (Onsite, Permanent)
- Estate Residential Zoning – Industrial Project Grading (Onsite, Permanent)
- Avoidance Area (Deed Restriction)
- Business Park Industrial (Offsite, Permanent)
- Fresno Road (Offsite, Permanent)
- Green River Road (Offsite, Permanent)
- Green River Road (Offsite, Temporary)
- Utility Improvement (Offsite, Permanent)
- Oak Woodland Mitigation - 2.57 ac.
- Proposed Conservation Cell 1702 - 26.82 ac.
- Proposed Conservation Cell 1704 - 20.73 ac.
- Proposed Conservation 1811 - 13.90 ac.
- Proposed Conservation 1812 - 19.32 ac.

N

0 250 500 1,000
Feet

1 inch = 600 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 9, 2024

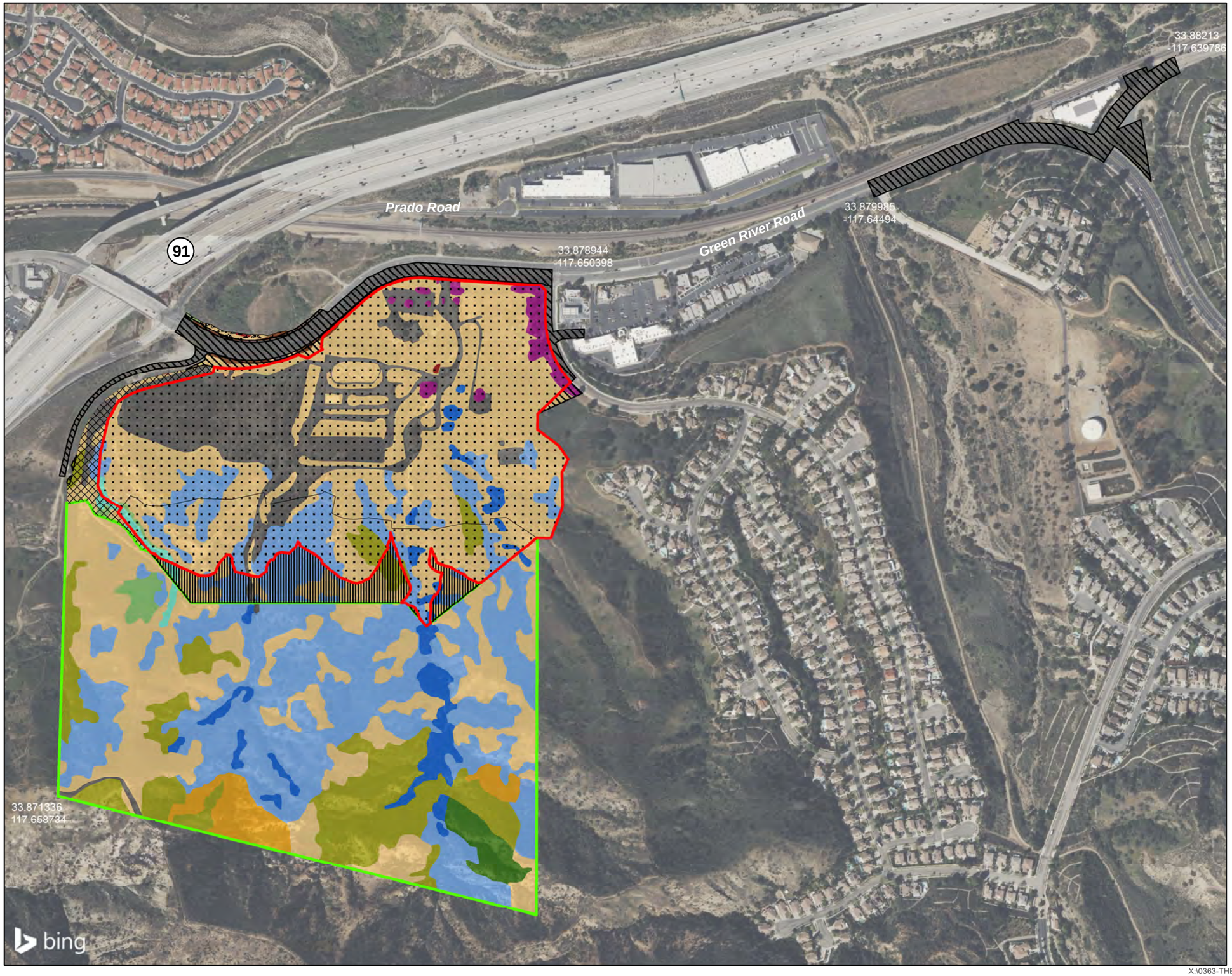
GREEN RIVER RANCH INDUSTRIAL PROJECT

MSHCP Reserve Assembly Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\0363-THE REST\0544-04GREN\544-4_GIS\CriteriaRefinementGIS\544-4_JPRConservation.mxd



- Project Footprint (Onsite, Permanent)
- Offsite Improvement (Offsite, Permanent)
- Offsite Improvement (Offsite, Temporary)
- Oak Woodland Mitigation (Onsite, Temporary)
- Proposed MSHCP Conservation
- Avoidance Area (Deed Restriction)
- Fuel Modification Limits
- Coast Live Oak Woodland
- Coastal Sage Scrub
- Disturbed Mixed Chaparral
- Disturbed/Developed
- Elderberry Savannah
- Lower Montane Mixed Chaparral
- Mixed Chaparral
- Residential/Urban/Exotic
- Riversidean Sage Scrub/Mixed Chaparral
- Ruderal/Non-native grassland
- Saltbush Scrub
- Southern Mixed Chaparral

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 6, 2024

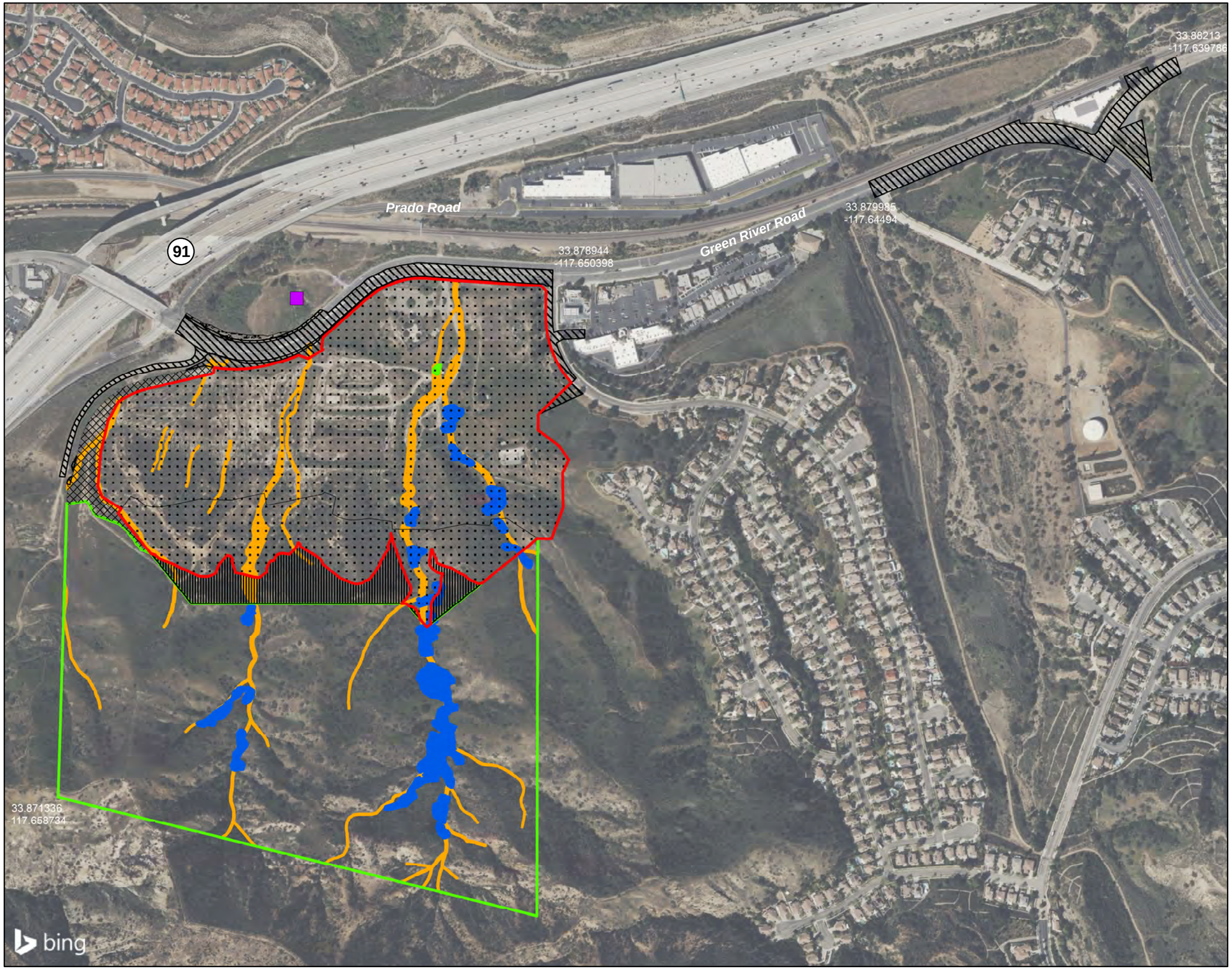
GREEN RIVER RANCH INDUSTRIAL PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 6

X:\0363-THE REST\0544-04GREN\544-4_GIS\VegetationGIS\544-4 VegetationLayout_DBESP.mxd



- Project Footprint (Onsite, Permanent)
- Offsite Improvement (Offsite, Permanent)
- Offsite Improvement (Offsite, Temporary)
- Oak Woodland Mitigation (Onsite, Temporary)
- Proposed MSHCP Conservation
- Avoidance Area (Deed Restriction)
- Fuel Modification Limits
- Non-Riparian Riverine
- Riparian Oak Woodland
- Riparian Elderberry Scrub
- Least Bell's Vireo - GLA 2020

N

0 250 500 1,000

Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 6, 2024

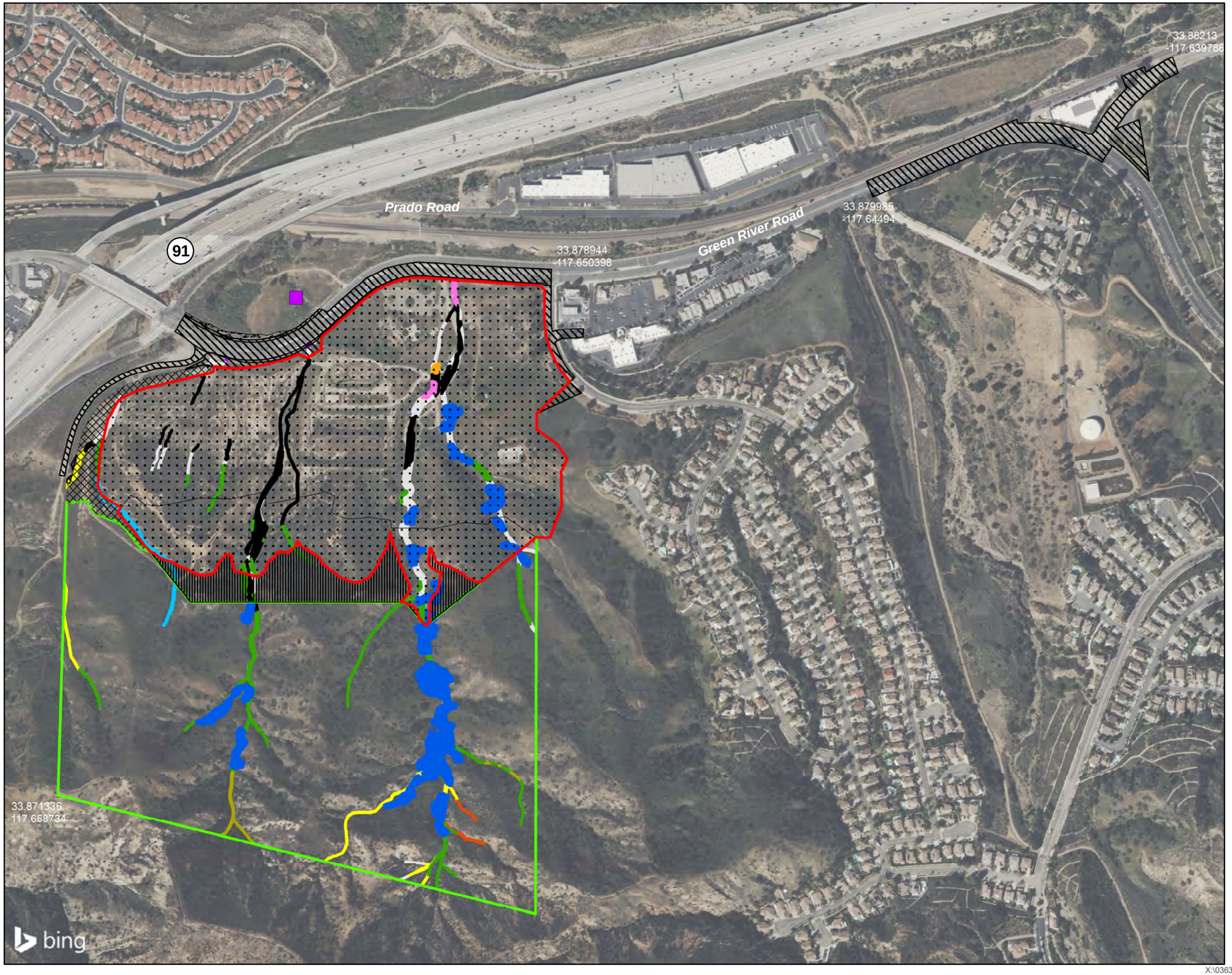
GREEN RIVER RANCH INDUSTRIAL PROJECT

MSHCP Riparian/Riverine Areas Map

GLENN LUKOS ASSOCIATES

Exhibit 7A

X:\0363-THE REST\0544-04GREN\544-4_GIS\MSHCP_GIS\544-4 RipRivLayout_DBESP_7A.mxd



Project Footprint (Onsite, Permanent)
Offsite Improvement (Offsite, Permanent)
Offsite Improvement (Offsite, Temporary)
Oak Woodland Mitigation (Onsite, Temporary)
Proposed MSHCP Conservation
Avoidance Area (Deed Restriction)
Least Bell's Vireo - GLA 2020

MSHCP Riverine

Disturbed Mixed Chaparral
Disturbed/Developed
Elderberry Savannah
Lower Montane Mixed Chaparral
Mixed Chaparral
Residential/Urban/Exotic
Riversidean Sage Scrub/Mixed Chaparral
Ruderal/Non-native grassland
Southern Mixed Chaparral

MSHCP Riparian

Coast Live Oak Woodland
Saltbush Scrub

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 6, 2024

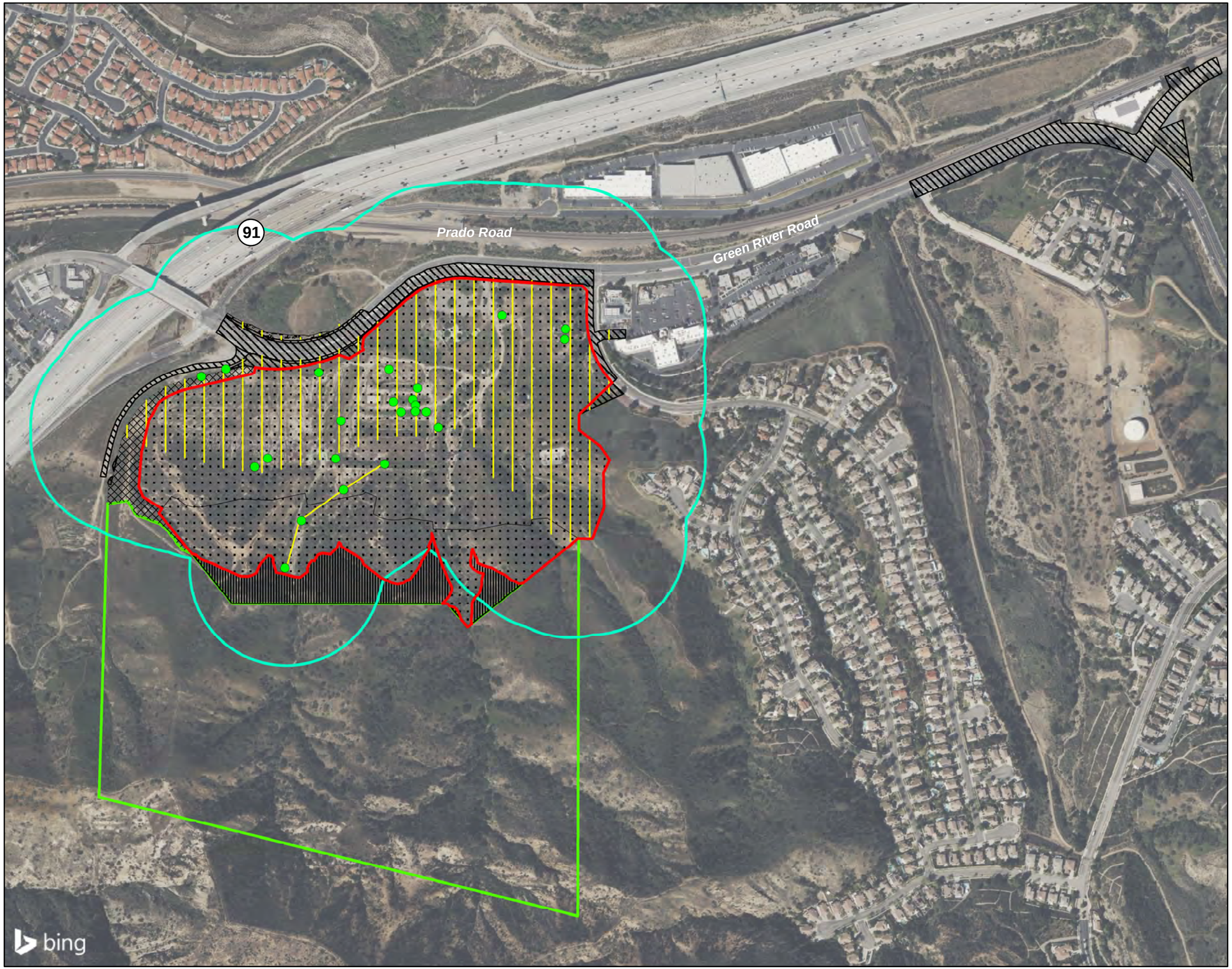
GREEN RIVER RANCH INDUSTRIAL PROJECT

MSHCP Riparian/Riverine - Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 7B

X:\0363-THE REST\0544-04GREN\544-4_GIS\MSHCP_GIS\544-4 RipRivLayout_DBESP.mxd



- Project Footprint (Onsite, Permanent)
- Offsite Improvement (Offsite, Permanent)
- Offsite Improvement (Offsite, Temporary)
- Oak Woodland Mitigation (Onsite, Temporary)
- Proposed MSHCP Conservation
- Avoidance Area (Deed Restriction)
- Fuel Modification Limits
- 500' Visual Survey Area
- Transect Location
- Burrow Complex

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 6, 2024

GREEN RIVER RANCH INDUSTRIAL PROJECT

Burrowing Owl Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 8

X:\0363-THE REST\0544-04GREN\544-4_GIS\BUOW_GIS\544-4_BUOW_DBESP.mxd

Appendix A

RCA Criteria Refinement Review Findings

Criteria Refinement Review Findings

CR #: 24-01-10-01
Date: 02/20/2024

Permittee:	**City of Corona**
Case Information:	**Relocation of Proposed Constrained Linkage 1**
Described Land to be Removed:	**82.8 acres**
Described Land to Remain:	**245.5 acres**
Undescribed Replacement Land:	**465.7 acres**

Consistency Statement for Criteria Refinement: ***Based on the equivalency analysis set forth by Section 6.5 of the MSHCP, included herein, the proposed relocation of Proposed Constrained Linkage 1 is consistent with the MSHCP based on the equivalent and/or superior biological value of the proposed undescribed Replacement Lands.***

Applicable Core/Linkage – Conservation/Replacement Lands: Proposed Constrained Linkage 1
Area Plan: Temescal Canyon Area Plan

Sub-Unit	Cell Group	Cell
SU 1- Santa Ana River to Santa Ana Mountains	Independent	1702 1704 1811 1812 1896 1898

Proposed Constrained Linkage 1 Location

Proposed Constrained Linkage 1 (hereafter referred to as existing PCL-1 in this document) is located within the northwestern portion of Riverside County near the San Bernardino and Orange County lines, south of State Route 91 (SR-91) (Exhibit A). Existing PCL-1 is located in the northwest portion of the Plan Area (Exhibit B).

Criteria Refinement Analysis Documentation

Criteria Refinement submittal material provided by the Permittee included a Criteria Refinement Analysis Relocation of Proposed Constrained Linkage 1 (*CR Analysis*), prepared by Glenn Lukos Associates, Inc. (GLA; December 12, 2023). The following Appendices to the *CR Analysis* were also provided as follows: Potential Wildlife Linkages affecting Mindeman Ranch Property (Appendix A; Beier, August 29, 2004); Corona 850 Study Area, Wildlife Movement Study (Appendix B; GLA, July 20, 2007); and Movement Patterns of Bobcats and Coyotes after Widening of CA-71 near CA-91 in Southern California (Appendix C; Boydston and Crooks 2013).

Reserve Assembly – Criteria Description

Conservation lands described for the assembly of PCL-1 is located within Criteria Cells 1702, 1704, 1811, 1812, 1896, and 1898 of Subunit 1 (Santa Ana River to Santa Ana Mountains) of The Temescal Canyon Area Plan. For each of these Cells, lands described for conservation would contribute to the assembly of PCL-1 and connect Existing Core A (Prado Basin/Santa Ana River) with Existing Core B (Cleveland National Forest). MSHCP Section 3.2.3 defines a constrained linkage as a "constricted connection expected to provide for movement of identified Planning Species between Core Areas, where options for assembly of the connection are limited due to existing patterns of use." The MSHCP defines a Core as "a block of Habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species."

As stated in Section 3.2.3 of the MSHCP, "Proposed Constrained Linkage 1 is located in the northwest portion of the Plan Area. The Linkage connects Existing Core A (Prado Basin/Santa Ana River) with Existing Core B (Cleveland National Forest) to the south. Existing urban development constrains the Linkage at its northern terminus; the Linkage is unconstrained in the south. In addition, SR-91 intersects this Linkage at its northern border. Despite this, Proposed Constrained Linkage 1 likely provides for movement of mountain lion and bobcat from the Santa Ana Mountains to the Chino Hills area beyond the Plan Area. Maintenance of contiguous habitat blocks with appropriate refugia for resting, such as rockpiles, brushpiles, windfalls, hollow snags and hollow trees, is important for dispersal of juveniles in this proposed Linkage. In addition, the Linkage has a relatively low P/A ratio (79 feet per acre) compared to other MSHCP Constrained Linkages, and the Linkage is surrounded by a Rural Mountainous planned land use designation. Thus, Edge Effects will be somewhat mitigated by these factors. 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]. In addition, as SR-91 intersects the Linkage at its northern terminus, an adequate wildlife underpass or overpass may need to be implemented to ensure movement of species in this area and to reduce the chance of mortality from vehicle collision."

Per MSHCP Volume I, Section 3.3.16, the applicable criteria description (herein referred to as "MSHCP Criteria") for each Cell in PCL-1 is presented in Table 1.

Table 1. Cell Criteria for Proposed Constrained Linkage 1

Cell (Independent)	Cell Acreage	Criteria	Acreage Described for Conservation (Low-Range to High-Range)
1702	187.1	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub and grassland. Areas conserved within this Cell will be connected to coastal sage scrub habitat proposed for conservation in Cells #1704 to the east	37.4 to 56.1

Table 1. Cell Criteria for Proposed Constrained Linkage 1

Cell (Independent)	Cell Acreage	Criteria	Acreage Described for Conservation (Low-Range to High-Range)
		and #1811 to south. Conservation within this Cell will range from 20%-30% of the Cell focusing on the eastern portion Cell.	
1704	185.4	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub. Areas conserved within this Cell will be connected to coastal sage scrub habitat proposed for conservation in Cells #1812 and #1702 to the south and west. Conservation within this Cell will be approximately 5% focusing on the southwestern portion of the Cell.	9.2
1811	146.5	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub, chaparral, and water. Areas conserved within this Cell will be connected to uplands proposed for conservation to the south, east, and north in Cells #1896, #1812, and #1702. Conservation within this Cell will range from 50% -60% focusing on the eastern portion of the Cell.	73.2 to 87.9
1812	146.5	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on coastal sage scrub and chaparral. Areas conserved within this Cell will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cells #1898, #1811, and C ell #1704 to the south, west, and north. Conservation within this Cell will range from 25% - 35% focusing on the western portion of the Cell.	36.6 to 51.2
1896	144.1	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on chaparral and coastal sage scrub. Areas conserved within this Cell will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cells #1898 and #1811 to the east and north. Conservation within this Cell will range from 5%-15% focusing on the northeastern portion of the Cell.	7.2 to 21.6

Table 1. Cell Criteria for Proposed Constrained Linkage 1

Cell (Independent)	Cell Acreage	Criteria	Acreage Described for Conservation (Low-Range to High-Range)
1898	144.0	Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 1. Conservation within this Cell will focus on chaparral and coastal sage scrub. Areas conserved within this Cell will be connected to chaparral and coastal sage scrub habitat proposed for conservation in Cell #1812 to the north. Conservation within this Cell will range from 50%-60% focusing on the eastern and northern portions of the Cell.	72.0 to 86.4

Criteria Refinement Introduction

Criteria Refinements may be initiated by Permittees, or at the request of private entities to Permittees if agreed to by the applicable Permittee, either for the purpose of correcting minor discrepancies or inaccuracies or for evaluating a proposed alternative conservation configuration that is of equivalent or superior benefit to Covered Species. As part of any Criteria Refinement, Replacement Lands must be proposed that are quantitatively and qualitatively equivalent or superior to the land impacted or being removed that is described for conservation. Such Criteria Refinements may involve changes to Cores and Linkages as long as it is demonstrated that the refinements would clearly benefit Covered Species and would be consistent with MSHCP policies and species objectives.

Purpose of Criteria Refinement

The existing alignment of PCL-1 is unconstrained to the south, but there are existing land uses that constrain PCL-1 at its northern terminus, including SR-91, the BNSF railroad line, and Green River Road. Therefore, the existing configuration does not adequately facilitate wildlife movement as intended by the MSHCP (i.e., to provide a linkage between the Santa Ana Mountains and the Prado Basin, and to provide a linkage between the Santa Ana Mountains and the Chino Hills). However, according to the *CR Analysis*, past biological studies have identified and evaluated a less constrained linkage area west of the existing alignment of PCL-1. This area is not described for conservation by the MSHCP and is hereafter referred to as alternate PCL-1.

The alternate PCL-1 alignment would comprise a portion of described land to remain, existing MSHCP Conserved Lands, and Undescribed Replacement Land that is to be acquired by the RCA as further detailed below. The alternate PCL-1 would provide connection to Prado Basin and the Chino Hills and exceed the minimum conservation goal for the combined independent Cells but would also exceed the high-range goal of the targeted conservation range. Furthermore, as described below in the *Equivalency Requirements* section, the alternative conservation configuration would shift conservation to the west and would still

functionally contribute to PCL-1. The existing and alternate PCL-1 alignments do not each represent distinctly separate alignments. Moreover, 245.5 acres are shared between the two alignments, with 82.7 acres being removed from the northern portion of the existing PCL-1 alignment and 465.7 acres being added in replacement, mostly to the west and connecting to the B Canyon Undercrossing at SR-91. According to the *CR Analysis*, the alternate PCL-1 alignment is superior to the existing PCL-1 alignment in achieving connection the Chino Hills because 1) it is not impacted by Green River Road; 2) it crosses SR-91 rather than running alongside the freeway for a stretch of approximately 1,200 feet; 3) wildlife would navigate the BNSF railroad line from SR-91 instead of navigating both obstacles sequentially; 4) wildlife could use the existing footbridge across the Santa Ana River; and 5) it leads to Aliso Canyon, which is the largest canyon in Chino Hills State Park, and therefore is a natural travel corridor for mountain lions (*Puma concolor*), bobcats (*Lynx rufus*), and other wildlife. Therefore, this conservation configuration would provide equivalent or superior biological value, as compared to leaving to the existing alignment of PCL-1, with the applicable MSHCP Criteria and policies, as summarized further below.

According to the *CR Analysis*, a total of 711.2 acres of land would be assembled for the alternate PCL-1, consisting of 245.5 acres of Described Land to Remain and 465.7 acres of Undescribed Land Replacement Land (Exhibit E). The existing PCL-1 begins at the boundary with Core B (Cleveland National Forest) and extends north across undeveloped land, Green River Road, and SR-91, connecting with Existing Core A just north of SR-91 (Exhibit B). The alternate PCL-1 would also begin at the boundary with Core B and extend across undeveloped land before connecting to the existing undercrossing at SR-91, with existing MSHCP Reserve lands to the north of SR-91. Approximately 538.4 acres of the 711.2-acre total of alternate PCL-1 would be associated with the six Criteria Cells, with an additional approximately 172.8 acres located outside of, but adjacent to, the Criteria Area.

Approximately 82.8 acres of the described lands would not be part of alternate PCL-1, as these lands represent the northernmost part of the existing alignment that would be removed as part of the Criteria Refinement (Exhibit E). As required by the MSHCP, all lands to be proposed as replacement via a Criteria Refinement must not be described for conservation by the existing Cell Criteria. In place of those lands to be removed, approximately 292.9 acres of land would be added in alternate locations of the six Criteria Cells (i.e., areas not described for conservation) in addition to the 172.8 acres of lands to be conserved that are not in Criteria Cells, for a total of 465.7 acres of Undescribed Replacement Land.

Equivalency Requirements pursuant to Section 6.5 of the MSHCP

The following sections are based on information provided in the *CR Analysis.* These sections provide the required equivalency analysis which compares the area described for conservation for PCL-1 to the area being proposed for the alternate PCL-1, including Undescribed Replacement Lands. The areas proposed as described conservation to remain also factor into parts of the discussion where they support the alternative conservation configuration, including ensuring connectivity between existing conserved lands and those proposed for conservation/replacement.

The equivalency requirements address the following categories: 1) effects on habitats; 2) effects on covered species; 3) effects on core areas; 4) effects on linkages and constrained linkages; 5) effects on non-contiguous habitat blocks; 6) effects on MSHCP configuration and management; 7) effects on ecotones and other conditions affecting species diversity; 8) equivalent or greater acreage; and 9) control over mitigation property being offered under the equivalency analysis.

1) EFFECTS ON HABITATS

The MSHCP Criteria identifies Habitats (vegetation communities) described for conservation to benefit Covered Species present or with the potential to occur. The Criteria Cells associated with the existing alignment of PCL-1 include three Habitat types intended to be conserved throughout the Cells, specifically coastal sage scrub, chaparral, and grassland[1]. Refer to *CR Analysis* Section 5.1 for a detailed evaluation and comparison regarding the total amount of Habitats (vegetation communities) described for conservation by the applicable MSHCP Criteria, including described areas to be removed from PCL-1, and lands to be added to support the assembly of the alternative PCL-1 alignment.

Note that the evaluations/comparisons used in this section of these Findings were performed using vegetation mapping conducted by GLA (2006/2007, 2014/2015 and in 2020) as well as using MSHCP 1994 Rough Step vegetation baseline. The GLA mapping was used to evaluate the actual vegetation communities (Habitats), and the purpose of using the 1994 Rough Step vegetation baseline was to demonstrate that the proposed Criteria Refinement would still satisfy the applicable Rough Step requirements for the described Habitats.

Vegetation Communities[2]

Existing PCL-1

Based on *CR Analysis* Section 5.1, vegetation communities mapped in for the existing PCL-1 alignment include 16.7 acres of residential/urban/exotic, 5.5 acres of coastal sage scrub, 250.7 acres of chaparral, 45.8 acres of non-native grassland, 0.5 acres of riparian, and 9.1 acres of coast live oak woodland, totaling 328.3 acres.

Alternative PCL-1

Based on *CR Analysis* Section 5.1, vegetation communities mapped for the alternate PCL-1 alignment include 21.2 acres of residential/urban/exotic, 55.1 acres of coastal sage scrub, 546.2 acres of chaparral, 69.7 acres of non-native grassland, 0.7 acres of riparian forest, and 18.4 acres of coast live oak woodland, totaling 711.2 acres.

---

1 The habitat accounts described in MSHCP Volume II, Section C, recognize two subassociations of grasslands (Valley and Foothill Grassland and Non-Native Grassland). The existing alignment of PCL-1 and alternate PCL-alignment contain only non-native grasslands and do not support native grasslands. As such, all references to grasslands pertain to non-native grasslands.

2 GLA (2006/2007, 2014/2015 and in 2020).

The Criteria Refinement would remove 82.8 acres of described lands, specifically 11.5 acres of residential/urban/exotic, 2.0 acres of coastal sage scrub, 37.4 acres of chaparral, 30.3 acres of non-native grassland, 1.1 acres of coast live oak woodland, and 0.5 acres of riparian. The Criteria Refinement would conserve 465.8 acres of Undescribed Replacement Land, specifically, 16.0 acres of residential/urban/exotic (increase of 4.5 acres), 51.6 acres of coastal sage scrub (increase of 49.6 acres), 332.9 acres of chaparral (increase of 295.5 acres), 54.2 acres of non-native grasslands (increase of 23.9 acres), 10.4 acres of coast live oak woodland (increase of 9.3 acres), and 0.7 acres of riparian (increase of 0.2 acres).

Vegetation Communities Summary

Overall, approval of the Criteria Refinement would substantially increase the overall Covered Habitats described in the MSHCP for PCL-1, including coastal sage scrub (increase of 49.6 acres), chaparral (increase of 295.5, and grassland (23.9). In addition, the Undescribed Replacement Lands proposed for the alternate alignment would include Habitats (i.e., coast live oak woodland) not characterized in the Cell Criteria for assembly of PCL-1. The total amount of lands to be conserved for the alternate PCL-1 alignment would increase by 382.9 acres, with an overall total conservation of 711.2 acres versus existing PCL-1 described acreage of 328.3 acres, with most gains consisting of chaparral vegetation, but also including coastal sage scrub, grassland, and the coast live oak woodland. Also, refer below to 2 *Effects on Covered Species* of these Findings, as well as *CR Analysis* Section 5.2, for additional details regarding the species supported by these vegetation communities.

Rough Step 1994 Vegetation Communities

The existing PCL-1 alignment and alternate PCL-1 are located within Rough Step Unit 1 (Exhibit C). According to the MSHCP 2021 Annual Report, in Rough Step Unit 1 there are three vegetation communities that have Rough Step acreage goals: coastal sage scrub; grasslands; and riparian scrub, woodland, forest. The below discussion only addressed these three vegetation communities.

Existing PCL-1

Based on the 1994 vegetation communities, and as further described in *CR Analysis* Section 5.1, the existing PCL-1 alignment includes 127.0 acres of coastal sage scrub, 179.0 acres of chaparral, and 14.5 acres of grassland, totaling 328.3 acres.

Alternative PCL-1

Based on *CR Analysis* Section 5.1, 1994 vegetation communities mapped for the alternate PCL-1 alignment includes 119.9 acres of coastal sage scrub, 539.5 acres of chaparral, 50.8 acres of grassland, and 1.0 acres of riparian forest, totaling 711.2 acres.

Rough Step 1994 Vegetation Communities Summary

The Criteria Refinement would decrease the conservation of coastal sage scrub in PCL-1 by 7.1 acres, increase the conservation of chaparral and grassland by 360.6 acres and 41.8 acres, respectively and introduce 1.0 acre of riparian forest to PCL-1. Overall, the Criteria Refinement would substantially increase the overall Covered Habitats described in the MSHCP for PCL-1.

The *CR Analysis* Tables 5-2 (1994 baseline) and 5-3 (GLA mapping) provide a breakdown of Habitats for the areas proposed for removal versus areas additional lands proposed as replacement to support the alternate alignment. Also, refer below to 2 *Effects on Covered Species* of these Findings, as well as *CR Analysis* Section 5.2, for additional details regarding the species supported by these vegetation communities.

In total, the 1994 vegetation that would be conserved under alternate PCL-1 would be at least equivalent in biological value compared to the total area of vegetation described (also based on 1994 vegetation) by the MSHCP, when considering the combined conservation of vegetation communities along with the Covered Species discussed below in 2 *Effects on Covered Species*.

Soils[3]

Existing PCL-1

Soils within existing PCL-1 include Arbuckle loam, Exchequer-Rock outcrop complex, Garretson very fine sandy loam, Gaviota very fine sandy loam, Rough broken land, and Vallecitos loam (Exhibit D).

Alternative PCL-1

Soils within the alternate PCL-1 include Arbuckle loam, Blasingame loam, Cieneba-Rock outcrop complex, Exchequer-Rock outcrop complex, Garretson gravelly very fine sandy loam, Gaviota very fine sandy loam, Rough broken land; and Vallecitos loam (Exhibit D).

Soils Summary

Because soils on the described lands to be removed as compared to the Undescribed Replacement Lands are similar, and Undescribed replacement lands would result in a substantial increase in overall Habitats conserved, approval of the Criteria Refinement would not be expected to have either a positive or negative effect on soils that support associated Planning Species and Habitats.

[3] USDA/NRCS Soils 2022.

Overall Summary - Effects on Habitats

In summary, the Criteria Refinement would result in the conservation of lands that would be equivalent or superior in acreages of Habitats provided, as well as providing equivalent or superior biological functions and values as compared to the described lands to be removed. Also, refer below to 2 *Effects on Covered Species* of these Findings, as well as *CR Analysis* Section 5.2, for additional details regarding the species supported by the Habitats proposed to be conserved/replaced as described above.

2) EFFECTS ON COVERED SPECIES

Planning Species

MSHCP Section 3.2.3 identifies the following Planning Species for PCL-1 that would utilize portions of PCL-1 for movement from the Santa Ana Mountains to the Chino Hills area beyond the Plan Area: Cooper's hawk (*Accipiter cooperii*), coastal California gnatcatcher (*Polioptila californica californica*), bobcat, and mountain lion.

The following analysis discusses the Planning Species that do or do not have potential to occur at the alternate PCL-1 and compares the lands described for conservation by the MSHCP versus what would be conserved/replaced and how the alternative conservation configuration would support these species, if applicable.

Avian Species

Based on the *CR Analysis* and the presence of suitable vegetation communities, the avian Planning Species, specifically Cooper's hawk and coastal California gnatcatcher have a potential to occur within alternate PCL-1.

Cooper's Hawk. According to the *CR Analysis*, the predominant habitat types in both the existing and alternate PCL-1 alignments contain live-in habitat for Cooper's hawk consisting of scrub vegetation, chaparral, as well as grassland, oak woodland and miscellaneous riparian habitats. The Criteria Refinement would result in an overall increase of live-in habitat for Cooper's hawk, specifically, based on the GLA vegetation mapping, an overall increase of 49.6 acres of coastal sage scrub, 295.5 acres of chaparral, 23.8 acres of non-native grassland, 9.3 acres of coast live oak woodland, and 0.2 acres of riparian, for an overall increase in 378.4 acres. As such, the alternate alignment would be superior in providing live-in habitat for Cooper's hawk.

Coastal California Gnatcatcher. PCL-1 is intended to provide live-in and dispersal habitat for coastal California gnatcatcher, including sage scrub habitats, as well as chaparral, grassland, and riparian habitats located adjacent to sage scrub habitats. According to the *CR Analysis*, the Criteria Refinement would result in an overall increase of live-in habitat for coastal California gnatcatcher. Specifically, based on the GLA vegetation mapping, approval of the Criteria Refinement would result in an overall increase of 49.6 acres of coastal sage scrub, 295.5 acres of chaparral, 23.8 acres of non-native grassland, 9.3 acres of coast live oak woodland, and 0.2 acres of riparian, for an

overall increase in 378.4 acres. The alternate PCL-1 alignment contains the greater amount of suitable habitat for gnatcatcher compared with the existing PCL-1 alignment, and therefore the alternative PCL-1 alignment is considered superior as both live-in and dispersal habitat for gnatcatcher.

Large Mammals

Mountain Lion and Bobcat. According to the *CR Analysis*, the alternate PCL-1 alignment is superior for the movement of medium to large-size mammals, including mountain lion and bobcat (and their prey), and to achieve the goal of connecting Core A and the Chino Hills with Core B with regards to wildlife movement and gene flow. Both species have been documented within the alternate PCL-1 alignment, including at the B Canyon Undercrossing at the SR-91 (depicted as "Underpass A" on Attachment A, GLA Wildlife Movement). According to the *CR Analysis*, the Criteria Refinement would result in an overall increase of live-in habitat for mountain lion and bobcat. Approximately 690.0 acres of the 711.2 total acreage for the alternative alignment would represent live in habitat for both species, which represents an increase of 378.4 acres compared with the existing PCL-1 alignment. Specifically, based on the GLA vegetation mapping, approval of the Criteria Refinement would result in an overall increase of 49.6 acres of coastal sage scrub, 295.5 acres of chaparral, 23.8 acres of non-native grassland, 9.3 acres of coast live oak woodland, and 0.2 acres of riparian. All habitat types are included in the acreage of live-in habitat except for the residential/urban/exotic category, although the disturbed portions of the site (i.e., the dirt roads) would facilitate the movement of both species.

The topography of the alternate PCL-1 alignment is conducive to north-south movement, including along dirt access roads, ridgelines, and drainage features that orient north to south from the Cleveland National Forest to SR-91. In contrast, the southern portion of the existing PCL-1 alignment crosses a series of steep, east-west canyons and ridgelines, which is not ideal to support the overall goal of north-south movement. As is reflected in the term "constrained" linkage, present movement along the existing PCL-1 alignment is severely constrained at the northern end due to the SR- 91, the railroad, and Green River Road. In comparison, the alternate PCL-1 alignment is far less constrained with no movement constraints existing between the Cleveland National Forest and the B Canyon Undercrossing at the SR-91 (depicted as "Underpass A" on Attachment A). Beyond the SR-91, the railroad spans the Santa Ana River and adjacent access roads, allowing wildlife to pass under the railroad tracks. For alternate PCL-1, the existing culvert at the B Canyon Undercrossing is currently large enough to accommodate movement, and size of the culvert would be further increased by the future Caltrans SR-91 improvements planned at the B Canyon location.

Other Covered Species

In addition to the Planning Species specifically addressed above, the MSHCP identifies other Covered Species for which habitat assessments/surveys are required based on designated survey areas and/or based on the presence of suitable habitat. A discussion of other species is provided below, consistent with MSHCP Volume I, Section 6.1.2 *Riparian/Riverine Areas and Vernal Pools*, Section 6.1.3 *Protection of Narrow Endemic Plant Species Survey Areas*, and Section 6.3.2 *Additional Survey Needs and Procedures*.

Section 6.1.2 Species. As discussed in *CR Analysis* Section 5.2.2, in 2020 GLA detected least Bell's vireo (*Vireo bellii pusillus*) utilizing elderberry-dominated riparian habitat totaling approximately 0.5-acre located north of Green River Road within the existing PCL-1 alignment. This habitat would be removed from PCL-1 as a result of the Criteria Refinement; however, alternate PCL-1 would result in the addition of 0.7-acre of riparian habitat that has potential to support least Bell's vireo, although the species has not been detected in those areas in the past. The remaining species (southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and listed fairy shrimp species) are not expected to occur in either alignment due to the lack of suitable habitat. As such, the Criteria Refinement would not have a positive or negative effect on these species.

In addition to these species, Section 6.1.2 identifies other species that are to be protected, including the following:

- Amphibians – arroyo toad (*Anaxyrus californicus*), mountain yellow-legged frog (*Rana muscosa*), California red-legged frog (*Rana draytonii*)
- Birds – bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus anatum*)
- Fish – Santa Ana sucker (*Catostomus santaanae*)
- Plants – Brand's phacelia (*Phacelia stellaris*), California Orcutt grass (*Orcuttia californica*), California black walnut (*Juglans californica*), Coulter's matilija poppy (*Romneya coulteri*), Engelmann oak (*Quercus engelmannii*), Fish's milkwort (*Polygala cornuta* var. *fishiae*), graceful tarplant (*Holocarpha virgata* ssp. *elongata*), lemon lily (*Lilium parryi*), Mojave tarplant (*Deinandra mohavensis*), mud nama (*Nama stenocarpa*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), Orcutt's brodiaea (*Brodiaea orcuttii*), Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*), prostrate navarretia (*Navarretia prostrata*), San Diego button-celery (*Eryngium aristulatum* var. *parishii*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), San Miguel savory (*Clinopodium chandleri*), Santa Ana River woolly-star (*Eriastrum densifolium ssp. sanctorum*), slender-horned spine flower (*Dodecahema leptoceras*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), spreading navarretia (*Navarretia fossalis*), thread-leaved brodiaea (*Brodiaea filifolia*), vernal barley (*Hordeum intercedens*)

Neither the existing nor alternate alignments for PCL-1 contain suitable habitat for any of the above-referenced species, except for San Miguel savory which is further discussed below. Because vegetation communities on the described lands to be removed as compared to the Undescribed Replacement Lands are similar, and Undescribed replacement lands would result in a substantial increase in Habitats conserved, the

Criteria Refinement would not be expected to have either a positive or negative effect on these Section 6.1.2 species.

Section 6.1.3 Species. The majority of the existing PCL-1 alignment and all of the alternate PCL-1 alignment are located within the Narrow Endemic Plant Species Survey Area (NEPSSA), which addresses the following species: San Diego ambrosia, Brand's phacelia, and San Miguel savory. Focused plant surveys were conducted by GLA on both the existing and alternate PCL-1 alignments in 2006, 2014 and in 2020 for the portion of the existing alignment to be removed. No NEPSSA species were found. Neither San Diego ambrosia nor Brand's phacelia is expected to occur due to a lack of suitable habitat, although San Miguel savory has a potential to occur primarily in the lands proposed for the alternate PCL-1 alignment. Based on the above discussion, and because the vegetations communities on the described lands to be removed as compared to the Undescribed Replacement Lands are similar, the Criteria Refinement would not be expected to have either a positive or negative effect on Section 6.1.3 NEPSSA species, specifically San Diego ambrosia, Brand's phacelia, and San Miguel savory.

Section 6.3.2 Species. Section 6.3.2 identifies additional species to be addressed if located within applicable survey areas, including plants associated with a Criteria Area Species Survey Area (CASSA) for plants, burrowing owl (*Athene cunicularia*) survey area, amphibian survey areas and mammal survey areas. The existing and alternate PCL-1 alignments are not in the CASSA for plants, amphibian or mammal survey areas. No further discussion is provided for these. The northern half of the existing and alternative alignments are in the survey area for burrowing owl, although the majority is not suitable to support burrowing owls due to the topography and vegetation densities. GLA conducted focused burrowing owl surveys in 2020 for the portion of the existing PCL-1 alignment to be removed but did not detect burrowing owls. Based on the above discussion, and because the vegetations communities on the described lands to be removed as compared to the Undescribed Replacement Lands are similar, approval of the Criteria Refinement would not be expected to have either a positive or negative effect on Section 6.3.2 species.

3) EFFECTS ON CORE AREAS (AS IDENTIFIED ON THE MSHCP CORE AND LINKAGE MAP, *FIGURE 3-2*)

The proposed Criteria Refinement would not adversely affect MSHCP Core Areas. As discussed above, PCL-1 is intended to connect Core A (Prado Basin) with Core B (Cleveland National Forest). Core A is located north of the SR-91 and the Santa Ana River, whereas Core B is adjacent to the existing and alternate PCL-1 alignments to the south. The alternate PCL-1 alignment would more effectively facilitate the connection of Cores A and B, and therefore would have a positive effect by maintaining the movement of wildlife between the Core areas. Refer to discussion above in *Effects on Core Areas* relative to wildlife movement.

4) EFFECTS ON LINKAGES AND CONSTRAINED LINKAGES (AS IDENTIFIED ON THE MSHCP CORE AND LINKAGE MAP, *FIGURE 3-2*)

The effectiveness of the existing alignment of PCL-1 and an alternate PCL-1 alignment was analyzed in meeting the stated MSHCP goals for PCL-1, including the potential to connect with the Prado Basin and the Chino Hills [*CR Analysis*, Appendix A]. In addition, GLA performed a wildlife movement study in 2006 and 2007 for the property that evaluated existing PCL-1 and alternate PCL-1, referred to at that time as the "Corona 850" property [*CR Analysis*, Appendix B]. GLA's study documented areas of wildlife movement from the Cleveland National Forest through the alternative PCL-1 alignment and to SR-91. The movement patterns of bobcat and coyote (*Canis latrans*) were further studied after the widening of State Route 71 (SR-71) near SR-91 that included analysis of camera data for other underpasses in the vicinity, including the underpass at B Canyon (named SR 91 u17 by Boydston and Crooks [2013]) within the alternate PCL-1 alignment [*CR Analysis*, Appendix C].

According to Dr. Beier's study and GLA's 2006/2007 wildlife movement study (*CR Analysis*, Appendix A and Appendix B), the alternate PCL-1 alignment has been documented as an important linkage for wildlife movement and is less constrained than the existing PCL-1 for its connection to the Chino Hills. The alternate PCL-1 provides both upland and riparian linkage routes to the Santa Ana River (and beyond to the Chino Hills) via the Green River Golf Course (existing MSHCP Reserve lands). The primary constraint along the alternate PCL-1 route is represented by the crossing of SR-91, where north of SR-91, wildlife must cross the Santa Ana River floodplain, and then the Green River Golf Course before reaching the Chino Hills. According to *CR Analysis*, Appendix A, Dr. Beier noted that wildlife such as bobcats and mountain lions would readily cross the golf course at night and would likely use an existing mobile home park footbridge that spans the Santa Ana River.

The movement of wildlife under SR-91 via alternate PCL-1 is currently achieved at two undercrossings. The B Canyon Undercrossing, as depicted on Attachment A of these Findings as "Underpass A," consists of a culvert that is approximately 340 feet long, 12 feet high and 12 feet wide. Future California Department of Transportation (Caltrans) improvement plans for SR-91 at this location are under study. A second existing undercrossing (a vehicle access tunnel) is located approximately 1,600 feet from the B Canyon Undercrossing (refer to "Underpass B" as depicted on Attachment A). The vehicle access tunnel is approximately 170 feet long, 16 feet wide, and 14 feet high. Based on accessibility to these undercrossings, the B Canyon Undercrossing is judged the primary undercrossing for wildlife. According to the *CR Analysis*, although the B Canyon Undercrossing was not found in its wildlife movement study to be of high use for coyote or bobcat movement, Boydston and Crooks (2013) found relatively high use of surrounding underpasses (not including the vehicle access tunnel) by these two species as well gray fox (*Urocyon cinereoargenteus*) suggesting that these species are in the local vicinity and therefore could use the B Canyon Undercrossing. In addition, Beier and Barret (1993) recorded two radio-collared mountain lions using the B Canyon Undercrossing. MSHCP monitoring that has occurred since the Boydston and Crooks (2013) field studies has documented mule deer (*Odocoileus hemionus*) and higher bobcat use than found by

Boydston and Crooks (2013); hence concluding the B Canyon Undercrossing could be another critical connectivity linkage for the entire suite of large mammals.

In summary, the proposed Criteria Refinement would have a positive effect on PCL-1 by designating a superior, alternate alignment to connect Core A with Core B, thereby supporting the overall goal of PCL-1. The alternate PCL-1 alignment is less constrained for wildlife movement than the existing PCL-1; is more conducive to the north-south movement needed to support the connectivity goals of PCL-1; and contains a greater amount of habitat types applicable to the Planning Species for PCL-1, including coastal sage scrub, chaparral, grassland, coast live-oak woodland, and riparian habitats.

5) EFFECTS ON NON-CONTIGUOUS HABITAT BLOCKS (AS IDENTIFIED ON THE MSHCP CORE AND LINKAGE MAP, *FIGURE 3-2*)

The MSHCP defines a "Non-Contiguous Habitat Block" as a "block of Habitat not connected to other Habitat areas via a Linkage or Constrained Linkage." The proposed Criteria Refinement would not affect Non-Contiguous Habitat Blocks, as none are present in the area.

6) EFFECTS ON MSHCP CONSERVATION AREA CONFIGURATION AND MANAGEMENT (SUCH AS INCREASES OR DECREASES IN EDGE)

Per the MSHCP, "edge effects" are defined as "adverse direct and indirect effects to species, Habitats and Vegetation Communities along the natural urban/wildlands interface. May include predation by meso-predators (including native and non-native predators), invasion by exotic species, noise, lighting, urban runoff, and other anthropogenic impacts (trampling of vegetation, trash and toxic materials dumping, etc.)." MSHCP Section 3.2.3 states that PCL-1 is surrounded by a Rural Mountainous planned land use designation, thus Edge Effects would be somewhat mitigated by these factors.

The proposed Criteria Refinement would conserve a larger intact block of land than is currently described by the MSHCP for PCL-1. This makes management of the lands easier and reduces potential edge effects. The Criteria Refinement would result in an equivalent or superior Reserve configuration with less management efforts necessary to control edge effects.

7) EFFECTS ON ECOTONES (defined as areas of adjoining Vegetation Communities, generally characterized by greater biological diversity) AND OTHER CONDITIONS AFFECTING SPECIES DIVERSITY (such as invasion by exotics)

Ecotones are defined by the MSHCP as areas of adjoining vegetation communities generally characterized by greater biological diversity. More specifically, ecotones are transitional areas between two different vegetation communities where, in the area of overlap between the two communities, there is often greater biological diversity given that the transitional areas exhibit aspects of both communities. As described in *CR Analysis* Section 5.1.7, both the existing and alternate PCL-1 alignments contain ecotonal areas, including transitional areas between upland habitats and riparian habitats, and between scrub habitats and grassland

habitats. Therefore, the proposed Criteria Refinement would have a net positive effect in conservation of ecotones areas.

8) EQUIVALENT OR GREATER ACREAGE CONTRIBUTED TO THE MSHCP CONSERVATION AREA

The MSHCP requires a Criteria Refinement contribute an equal or greater acreage to the Reserve using lands not described for conservation (i.e., Undescribed Replacement Lands) to offset areas described for conservation that are being proposed for replacement. As described above under *Purpose of the Criteria Refinement* of these Findings, and summarized in the *CR Analysis*, the proposed Criteria Refinement would result in approximately 382.9 acres of lands coming into the MSHCP Conservation Area that are not described for conservation to compensate for the removal of approximately 82.8 acres of described lands from existing PCL-1. The Criteria Refinement would result in a greater acreage to the Reserve.

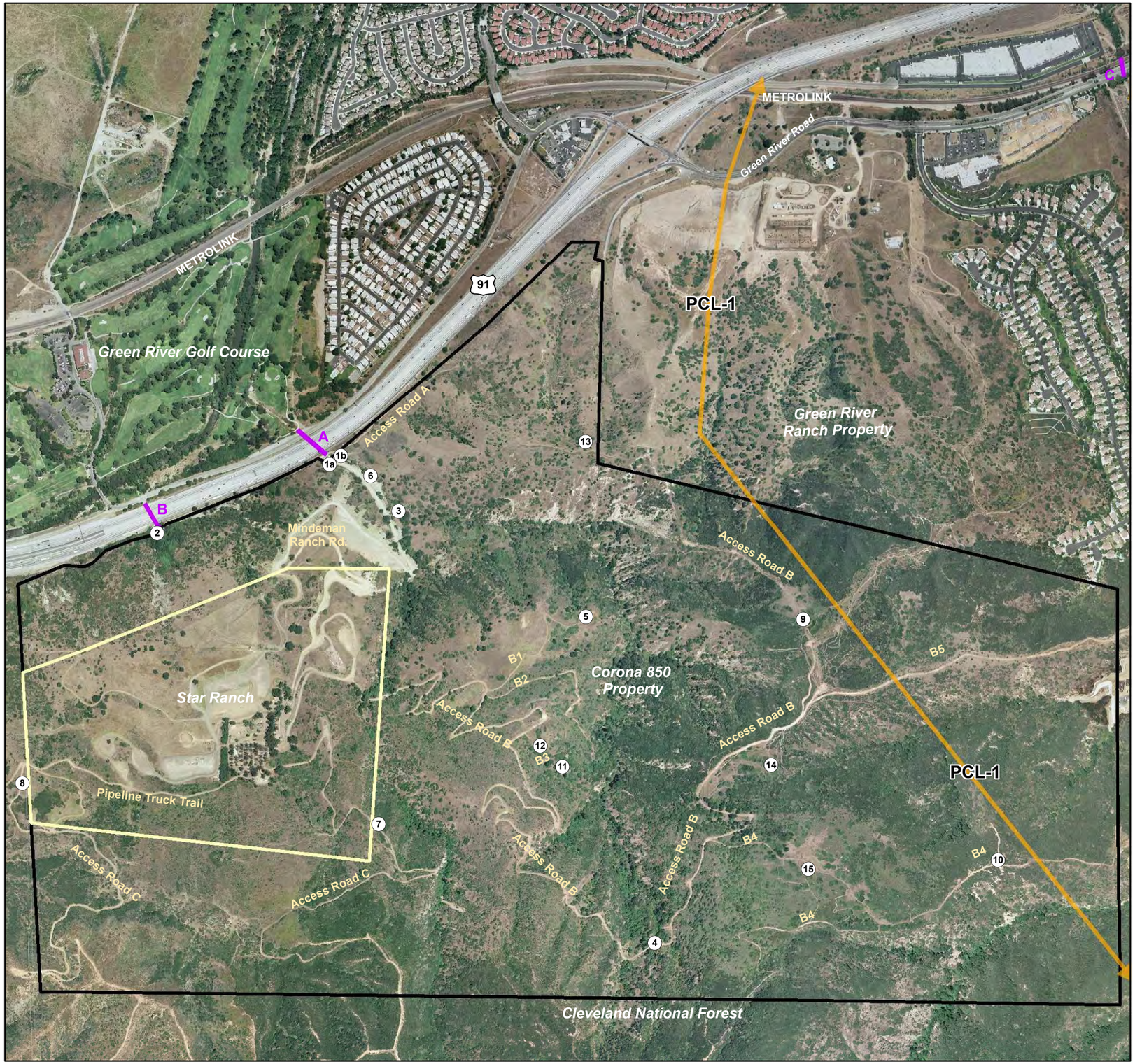
9) APPLICANT MUST DEMONSTRATE AGREEMENTS OR CONTROL OVER MITIGATION PROPERTY BEING OFFERED UNDER THE EQUIVALENCY ANALYSIS

The MSHCP requires for Criteria Refinements that applicants have control over lands to be used as replacement for described conservation lands to be remove pursuant to the Criteria Refinement. The replacement lands presented in this Criteria Refinement are in the process of being acquired by the RCA to address the long-standing wildlife connectivity issues of existing PCL-1. Approximately 38.7 acres (APN 101-180-036) is already conserved as Additional Reserve Lands (ARL; B Canyon 1), and the remaining lands (672.50 acres) are pending acquisition from the RCA as ARL.

BS/TC

Attachment A

GLA Wildlife Movement



Camera Station

	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Bobcat *(Lynx rufus)*		●	●	●	●	●	●	●	●	●	●		●		●	
Coyote *(Canis latrans)*	●	●	●	●	●	●	●	●	●	●			●			
Gray Fox *(Urocyon cinereoargenteus)*		●		●	●	●		●		●	●	●	●		●	
Mountain Lion *(Puma concolor)*				●	●											
Mule Deer *(Odocoileus hemionus)*				●	●	●		●	●	●	●	●		●		
Raccoon *(Procyon lotor)*		●	●	●			●	●						●		
Striped Skunk *(M. mephitis)*			●	●	●	●	●	●							●	
Virginia Opossum *(Didelphis virginiana)*			●	●			●									

--Camera was destroyed/vandalized--

- Corona 850 Property
- Star Ranch Property
- Underpass
- Proposed Constrained Linkages

N

0 425 850

Feet

CORONA 850

Species Detected at Camera Locations

GLENN LUKOS ASSOCIATES

Exhibit 6

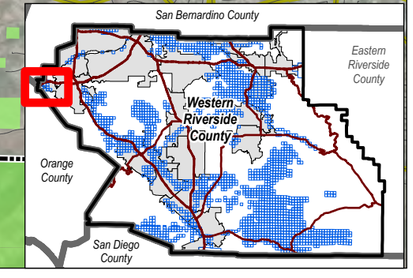
X:\0363-THE REST\0385-22CORO\385-22GIS\BioGIS\Wildlife\385-22CameraSpeciesMap05-10-07.mxd
June 26, 2007

Exhibit A

Regional Map

City of Eastvale
City of Norco
City of Norco
1331
Cell Group A
1426
SANTAANA RIVER
1520
Cell Group B
71
1612
1616
91
1702
1704
1706
1811
1812
1813
City of Corona
1896
1898
1900
1902

Criteria Refinement Boundary
Described Land To Be Removed
Described Land To Remain
Undescribed Replacement Land
Private Development
Public Development
MSHCP Conserved ARL (Land)
MSHCP Conserved ARL (Conservation Easement)
MSHCP Conserved Public/Quasi-Public Land
MSHCP Covered Road
Cell Group
Criteria Cell
City Boundary
MSHCP Boundary
Water Body
Highway
Centerline



G:\RCA\CRITERIA_REFINEMENT\CR24011001_GreenRiverRanch\CR24011001_FINDINGSEXHIBITS.aprx

SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; Esri Basemap 2023. Map created on 2/20/2024.

Regional Conservation Authority
Western Riverside County

r43014
Permittee: City of Corona
Relocation of Proposed Constrained Linkage 1

0 1,000 2,000 Feet

EXHIBIT A
CR Log No. 24-01-10-01- Regional

Exhibit B

Vicinity Map with MSHCP Schematic Cores and Linkages

CR Log No. 24-01-10-01

MSHCP Boundary

Proposed Linkages
- Constrained Linkage
- Linkage
- Existing Channel

Existing Cores & Linkages
- Constrained Linkage
- Core
- Linkage
- Noncontiguous Habitat Block

Proposed Cores & Habitat Blocks
- Core
- Proposed Extension of Existing Cores
- Noncontiguous Habitat Block

SOURCE: Western Riverside County Regional Conservation Authority (WRC-RCA). Map created on 2/20/2024

Regional Conservation Authority
Western Riverside County

r43014
Permittee: City of Corona
Relocation of Proposed Constrained Linkage 1

0 2 4 Miles

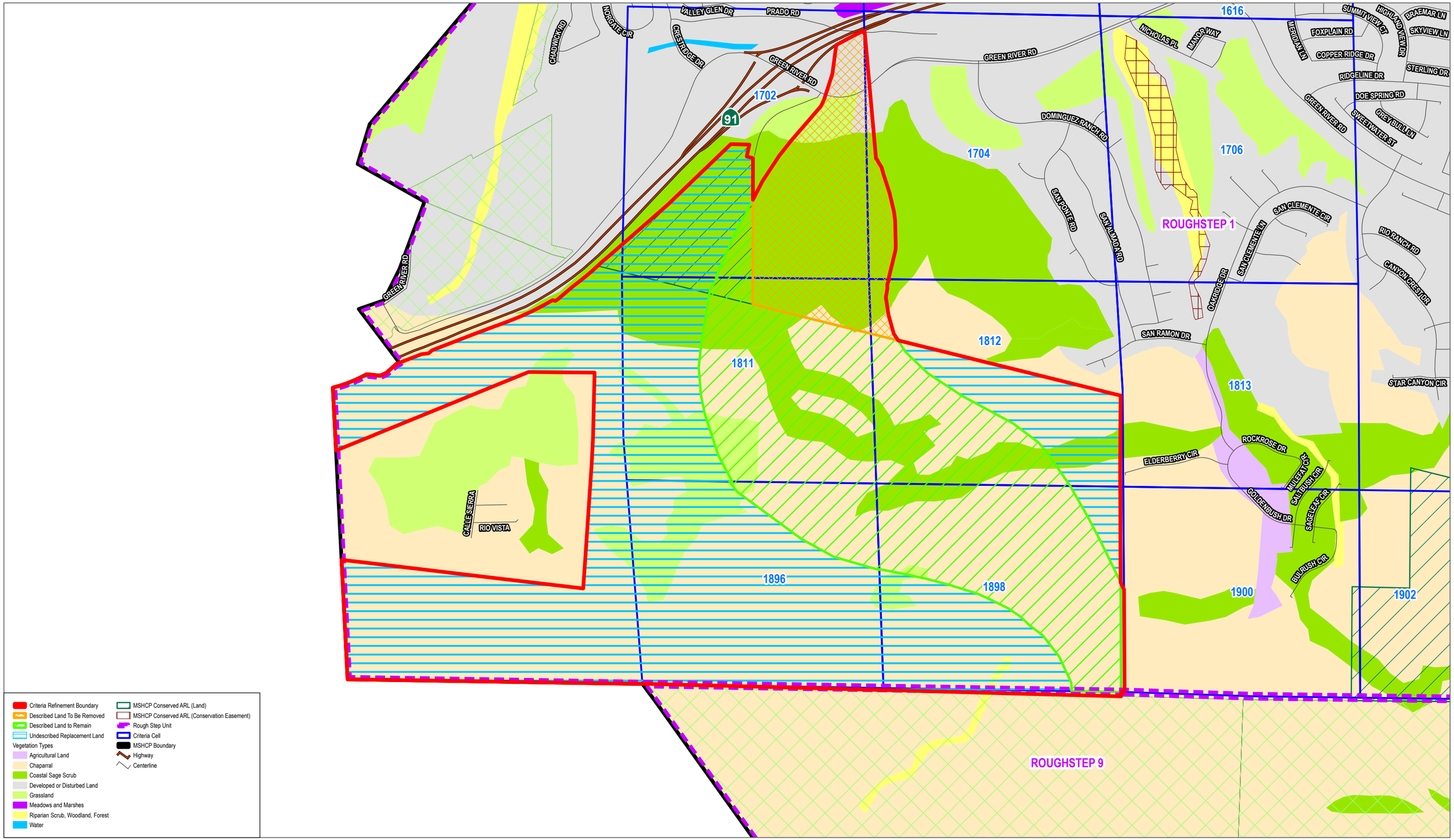
EXHIBIT B

CR Log No. 24-01-10-01- Vicinity Map with MSHCP Schematic Cores and Linkages

G:\RCA\CRITERIA_REFINEMENT\CR24011001_GreenRiverRanch\CR24011001_FINDINGSEXHIBITS.aprx

Exhibit C

MSHCP 1994 Baseline Vegetation



SOURCE: WRC-RCA MSHCP Baseline Vegetation (1994). Map created on 2/20/2024.

Regional Conservation Authority
Western Riverside County

r43014
Permittee: City of Corona
Relocation of Proposed Constrained Linkage 1

0 750 1,500 Feet

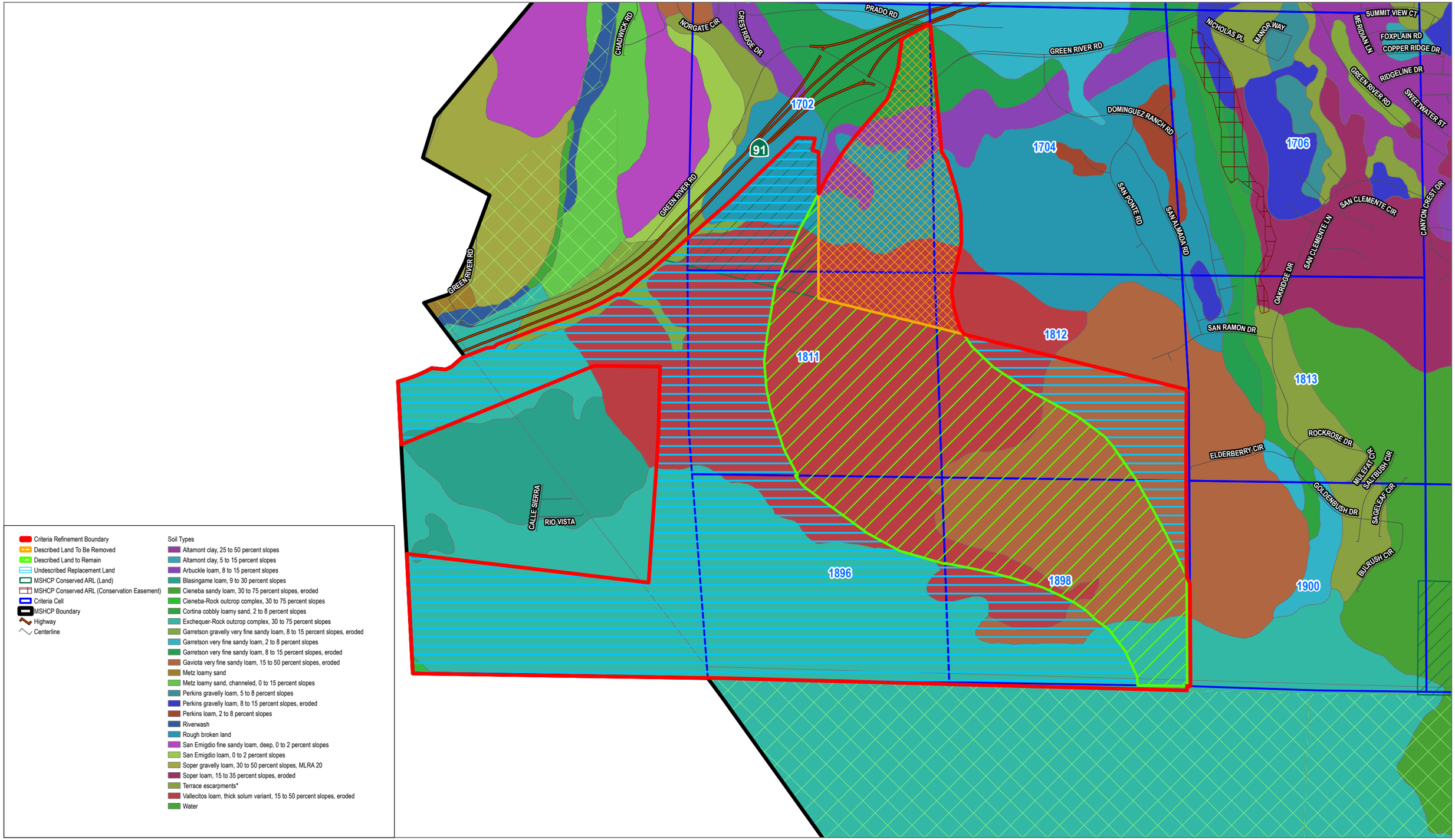
EXHIBIT C

CR Log No. 24-01-10-01- MSHCP 1994 Baseline Vegetation

G:\RCA\CRITERIA_REFINEMENT\CR24011001_GreenRiverRanch\CR24011001_FINDINGSEXHIBITS.aprx

Exhibit D

Soil



G:\RCA\CRITERIA_REFINEMENT\CR240111001_GreenRiverRanch\CR240111001_FINDINGSEXHIBITS.aprx

SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; USDA/NRCS Soils 2022

Regional Conservation Authority
Western Riverside County

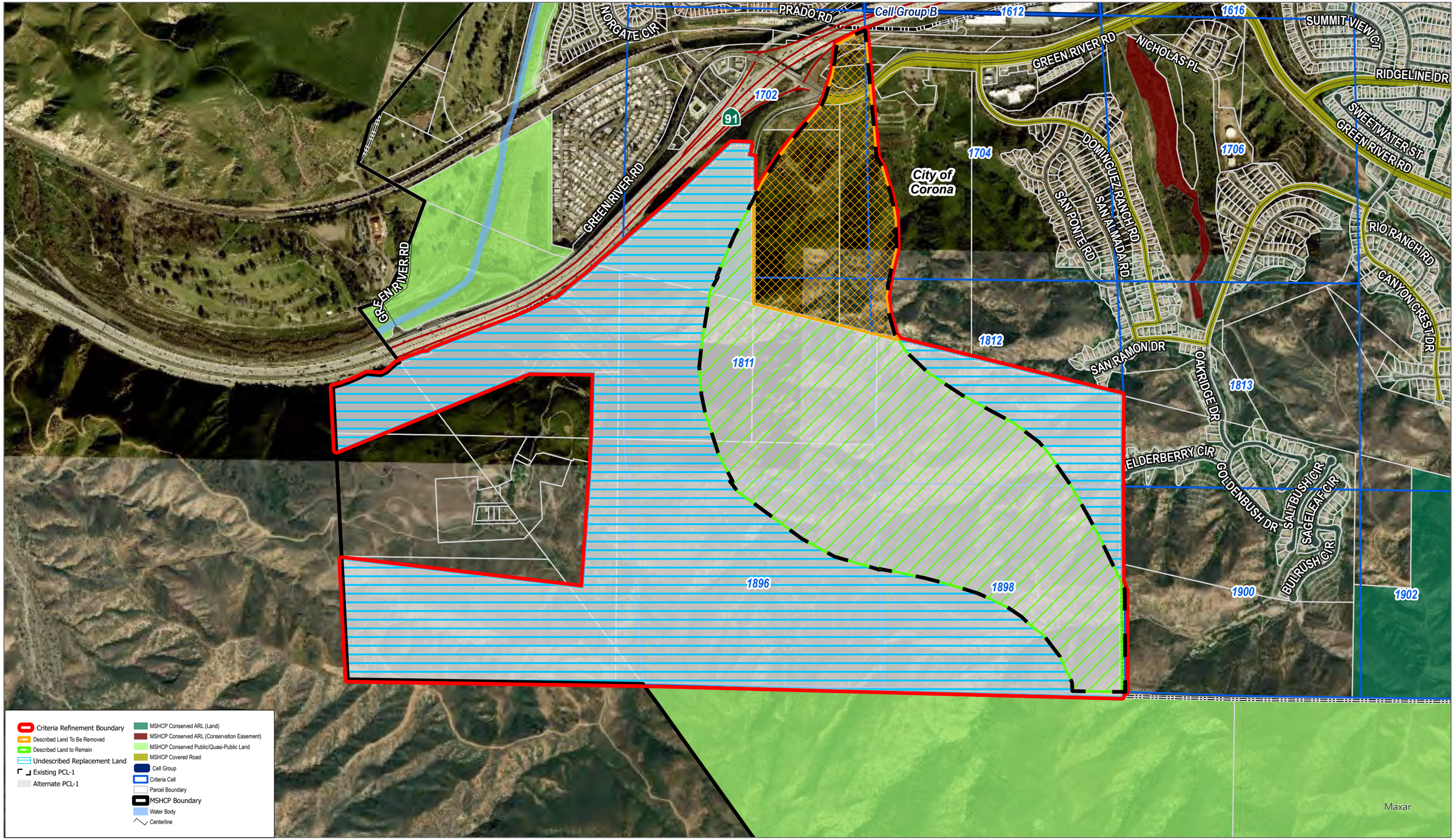
r43014
Permittee: City of Corona
Relocation of Proposed Constrained Linkage 1

0 750 1,500 Feet

EXHIBIT D
CR Log No. 24-01-10-01- Soil

Exhibit E

Criteria Refinement Detail



G:\RCA\CRITERIA_REFINEMENT\CR24011001_GreenRiverRanch\CR24011001_FINDINGSEXHIBITS.aprx

SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; Esri Basemap 2023. Map created on 2/20/2024.

Regional Conservation Authority
Western Riverside County

r43014
Permittee: City of Corona
Relocation of Proposed Constrained Linkage 1

0 750 1,500 Feet

EXHIBIT E

CR Log No. 24-01-10-01- Criteria Refinement Detail

Appendix B

Criteria Refinement Wildlife Agency Concurrence

David Moskovitz

From: Rehrer, Katrina@Wildlife <Katrina.Rehrer@Wildlife.ca.gov>
Sent: Monday, March 25, 2024 2:19 PM
To: Britney Schultz; Sandra Vanian
Cc: Tricia Campbell (TCampbell@RCTC.org); LLevy@RCTC.org; Carol Thompson; Philip Kang; Hector Casillas; Monica Tlaxcala; Karin Cleary-Rose (karin_cleary-rose@fws.gov); Thiede, James H; Beck, Carly@Wildlife; Vasquez, Alta@Wildlife; Machuca, Breanna@Wildlife; David Moskovitz
Subject: RE: Criteria Refinement 24-01-10-01 Findings - Relocation of Proposed Constrained Linkage 1 (02.20.2024)

Good afternoon,

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Wildlife (CDFW), hereafter referred to jointly as the Wildlife Agencies, Criteria Refinement (CR) 24-01-10-01 Findings for the Relocation of Proposed Constrained Linkage 1 received from the City of Corona via the Western Riverside County Regional Conservation Authority (RCA) on February 22, 2024.

After review of the RCA's Criteria Refinement Review Findings the Wildlife Agencies concur that the proposed Revised Criteria Refinement is superior or equivalent to conservation described within Proposed Constrained Linkage 1. The Criteria Refinement will result in 1) additional conservation for a linkage area under State Route 91 that was previously not described, 2) a larger more contiguous conservation configuration to link Core A and Core B (an increase of 382.9 acres for conservation), and 3) reduced edge effects along the easternly and southernly portions of existing PCL-1 along Green River Road and SR-91.

We appreciate the opportunity to provide comments on this Criteria Refinement proposal and look forward to continuing to work with the RCA and the City of Corona on this Project. If you have any questions or comments regarding this email, please contact James Thiede of the Service or Katrina Rehrer of the CDFW.

Best,

Katrina Rehrer
Environmental Scientist
Inland Deserts Region
California Department of Fish and Wildlife
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 260-1998

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

And

James Thiede
Endangered Species Biologist
U.S. Fish and Wildlife Service
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262
(760) 322-2070 x419

From: Britney Schultz <bschultz@dudek.com>
Sent: Tuesday, February 20, 2024 5:05 PM
To: Karin Cleary-Rose (karin_cleary-rose@fws.gov) <karin_cleary-rose@fws.gov>; Thiede, James H <james_thiede@fws.gov>; Siless, Ryan M <ryan_siless@fws.gov>; Beck, Carly@Wildlife <Carly.Beck@wildlife.ca.gov>; Rehrer, Katrina@Wildlife <Katrina.Rehrer@Wildlife.ca.gov>; Dempsey, John(Trey)@Wildlife <John.Dempsey@Wildlife.ca.gov>; Vasquez, Alta@Wildlife <Alta.Vasquez@Wildlife.ca.gov>; Machuca, Breanna@Wildlife <Breanna.Machuca@Wildlife.ca.gov>
Cc: Tricia Campbell (TCampbell@RCTC.org) <TCampbell@RCTC.org>; LLevy@RCTC.org; Carol Thompson <CThompson@RCTC.org>; Philip Kang <PKang@RCTC.org>; Hector Casillas <HCasillas@RCTC.org>; Monica Tlaxcala <MTlaxcala@RCTC.org>
Subject: Criteria Refinement 24-01-10-01 Findings - Relocation of Proposed Constrained Linkage 1 (02.20.2024)

Hello all,

Please find the ShareFile link below for the Criteria Refinement (CR) 24-01-10-01 Findings for the Relocation of Proposed Constrained Linkage 1, and supporting documentation. Please let me know if you have any issues accessing and downloading any of the documents. Should any substantial issues arise, please reach out to RCA to schedule a meeting (i.e., meet and confer) with the Permittee. This meeting would need to occur within the first 30 calendar days of the 60-day review period.

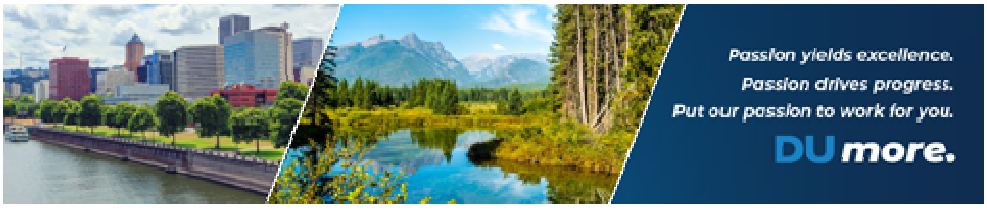
https://dudek.sharefile.com/public/share/web-sc851217281774f5d8643a462c53fa302

Please feel free to contact Tricia or I if you have any questions.

Thank you,
Britney

Britney Schultz
Biologist
DUDEK

O: 760 601 3416 **C:** 760 685 1231
dudek.com



Appendix C

Green River Road Improvement Plans

EB SR-91 ON-RAMP
APN 101-180-035
GREEN RIVER RANCH SP-001
MIXED USE
GREEN RIVER ROAD
FRESNO ROAD
STREET A
LOT "B"
PROP. STREET R/W DEDICATION
13' CALTRANS WIDENING
PROP CURB & GUTTER BY CALTRANS
13' PROP. WIDENING
PROP CURB & GUTTER
FUT CURB & GUTTER
EX R/W
EX CURB & GUTTER
FUT TURN LANE
PROP CURB
PROP CURB & GUTTER
RELOCATE EXISTING CATCHBASIN
PROTECT IN PLACE EXISTING STORM DRAIN FACILITIES
EX. RETAINING WALL
118' COVERED ROADWAY PERMANENT IMPACTS
EX CURB TO BE REMOVED
PROP CURB
EX. CURB
14' PROP. WIDENING
PROP R/W
PROP DOMESTIC SERVICE
PROJECT BOUNDARY
EX 48" SD
EX. C&G
PROP. TURN LANE
EX CURB TO BE REMOVED
N61°00'26"E 46.77'
N48°26'24"E 258.73'
R=582.50'
Δ=13°36'04"
L=138.28'
L=651.88'
R=680.02'
Δ=54°55'31"
(554.15 TC)
(553.48 FL)
(553.70 TC)
(553.03 FS)
(550.80 TC)
(550.13 FS)
552.89 TC
552.22 FS
(546.50) INV
(543.50) INV
550.77 TC
550.10 FS
549.91 TC
549.24 FS
548.92 TC
548.25 FS
(538.88 TC)
(538.21 FS)
(538.67 TC)
(538.00 FL)
541.22 TC
540.55 FS
533.97 TC
533.30 FS
514.70
514.03
185.8'
98.0'
58.0'
84.9'
60.0'
Obscured Area
SCALE IN FEET

STREET IMPROVEMENTS
GREEN RIVER RANCH BUSINESS PARK
CITY OF CORONA

PREPARED FOR:

WESTERN REALCO
500 NEWPORT CENTER DR #630
NEWPORT BEACH, CA 92660

TEMPORARY IMPACT

PREPARED BY:

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
1880 COMPTON AVENUE, SUITE 100 CORONA, CA. 92881-3370 951-734-2130

SHEET 1 OF 2 SHEET

30' 0 30 60' 90'

SCALE IN FEET

STREET IMPROVEMENTS
GREEN RIVER RANCH BUSINESS PARK
CITY OF CORONA

PREPARED FOR:

WESTERN REALCO
500 NEWPORT CENTER DR #630
NEWPORT BEACH, CA 92660

PREPARED BY:

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
1880 COMPTON AVENUE, SUITE 100 CORONA, CA. 92881-3370 951-734-2130

SHEET 2 OF 2 SHEET

Appendix D

Floral Compendium

FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy typically follows the Angiosperm Phylogeny Group (APG), which in some cases differs from The Jepson Manual (2012). Common plant names are taken from Baldwin et al (2012), Munz (1974), and Roberts et al (2004) and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
MAGNOLIOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONS	**MONOCOTS**
AGAVACEAE	**Agave Family**
Hesperoyucca whipplei	Chaparral yucca
ARECACEAE	**Palm Family**
* *Phoenix canariensis*	Canary Island date palm
POACEAE	**Grass Family**
* *Avena barbata*	slender wild oat
* *Avena fatua*	common wild oat
* *Avena sativa*	cultivated oat
* *Bromus hordeaceus*	soft chess
* *Bromus madritensis* subsp. *rubens*	foxtail chess
* *Cynodon dactylon*	Bermuda grass
Elymus condensatus	giant wildrye
Festuca perennis	*Italian* rye grass
Hordeum murinum	foxtail barley
Lamarckia aurea	goldentop
Pennisetum setaceum	fountaingrass
Schismus barbatus	common mediterranean grass
EUDICOTYLEDONS	**EUDICOTS**
ADOXACEAE	**Elderberry Family**
Sambucus nigra subsp. *caerulea*	Mexican elderberry
AIZOACEAE	**Carpet-Weed Family**
* *Mesembryanthemum nodiflorum*	small-flowered ice plant

AMARANTHACEAE		**Amaranth Family**
	Amaranthus blitoides	prostrate pigweed
ANACARDIACEAE		**Sumac Family**
	Malosma laurina	laurel sumac
	Rhus integrifolia	lemonade berry
*	*Schinus molle*	Peruvian pepper tree
APIACEAE		**Carrot Family**
*	*Conium maculatum*	poison hemlock
*	*Foeniculum vulgare*	sweet fennel
	Sanicula arguta	sharp-toothed sanicle
	Sanicula bipinnatifida	purple sanicle
	Tauschia arguta	southern tauschia
ASTERACEAE		**Sunflower Family**
*	*Anthemis cotula*	dog mayweed
	Artemisia californica	California sagebrush
	Artemisia dracunculus	tarragon
	Baccharis pilularis	coyote bush
	Baccharis salicifolia	mulefat
*	*Carduus pycnocephalus*	Italian thistle
*	*Centaurea melitensis*	tocalote
	Corethrogyne filaginifolia	common sand aster
*	*Cotula australis*	Australian brass-buttons
	Deinandra fasciculata	fascicled tarweed
	Encelia californica	California encelia
	Ericameria pinifolia	pine-bush
	Erigeron canadensis	Canada horseweed
	Hazardia squarrosa	saw-toothed goldenbush
*	*Helminthotheca echioides*	bristly ox-tongue
	Heterotheca grandiflora	telegraph weed
*	*Hypochaeris glabra*	smooth cat’s-ear
	Isocoma menziesii var. *menziesii*	Menzies’ goldenbush
	Lasthenia glabrata ssp. coulteri	Coulter's goldfields
	Layia platyglossa	tidy tips
	Malacothrix saxatilis var. tenuifolia	short leaved cliff aster
	Matricaria discoidea	pineapple weed
	Oncosiphon piluliferum	stinknet
	Pseudognaphalium beneolens	cudweed
	Pseudognaphalium canescens	Wright's cudweed
	Pseudognaphalium microcephalum	Wright's cudweed
	Senecio vulgaris	common groundsel
	Sonchus oleraceus	sow thistle
	Stephanomeria virgata	twiggy wreath plant
	Verbesina encelioides	golden crownbeard

BORAGINACEAE		**Borage Family**
	Amsinckia intermedia	common fiddleneck
	Cryptantha intermedia	common cryptanth
	Eucrypta chrysanthemifolia	spotted eucrypta
	Phacelia distans	common phacelia
	Phacelia minor	wild canterbury bells
	Plagiobothrys nothofulvus	rusty haired popcorn flower
BRASSICACEAE		**Mustard Family**
*	*Brassica nigra*	black mustard
*	*Capsella bursa-pastoris*	shepherd's purse
*	*Hirschfeldia incana*	summer mustard
	Lepidium nitidum	shining pepper grass
*	*Raphanus sativus*	wild radish
	Sisymbrium irio	London rocket
CARYOPHYLLACEAE		**Pink Family**
	Silene laciniata subsp. *major*	Mexican pink
	Silene gallica	common catchfly
	Spergularia bocconi	Boccone's sand spurry
	Stellaria media	chickweed
CHENOPODIACEAE		**Goosefoot Family**
	Chenopodium album	lambs quarters
	Chenopodium californicum	California goosefoot
	Salsola tragus	Russian thistle
CONVOLVULACEAE		**Morning-Glory Family**
	Calystegia macrostegia	morning-glory
CUCURBITACEAE		**Gourd Family**
	Marah macrocarpus	wild cucumber
EUPHORBIACEAE		**Spurge Family**
	Euphorbia albomarginata	rattlesnake spurge
*	*Ricinis communis*	castor bean
FABACEAE		**Legume Family**
	Acmispon glaber	deerweed
	Lupinus bicolor	lupine
	Lupinus excubitus	Grape lupine
	Medicago polymorpha	California burclover
	Trifolium willdenovii	tomcat clover

FAGACEAE		**Beech Family**
	Quercus agrifolia var. *agrifolia*	coast live oak
	Quercus berberidifolia	California scrub oak
GERANIACEAE		**Geranium Family**
*	*Erodium botrys*	long-beaked filaree
*	*Erodium cicutarium*	red-stemmed filaree
HIPPOCASTANACEAE		**Buckeye Family**
	Aesculus californica	California buckeye
LAMIACEAE		**Mint Family**
*	*Lamium amplexicaule*	common henbit
*	*Marrubium vulgare*	horehound
	Salvia apiana	white sage
	Salvia mellifera	black sage
MALVACEAE		**Mallow Family**
	Malacothamnus fasciculatus	chaparral bush mallow
*	*Malva parviflora*	cheeseweed
MYRSINACEAE		**Myrsine Family**
*	*Lysimachia arvensis*	scarlet pimpernel
NYCTAGINACEAE		**Four O'Clock Family**
	Mirabilis laevis	California wishbone bush
PAPAVERACEAE		**Poppy Family**
	Romneya coulteri	Coulter's matilija poppy
PHRYMACEAE		**Monkeyflower Family**
	Diplacus aurantiacus	sticky monkeyflower
PLANTAGINACEAE		**Plantain Family**
	Antirrhinum nuttallianum	Nuttall's snapdragon
	Keckiella antirrhinoides	yellow bush-penstemon
	Plantago erecta	California plantain
POLEMONIACEAE		**Phlox Family**
	Gilia achilleifolia	California gilia
POLYGONACEAE		**Buckwheat Family**
	Eriogonum fasciculatum	California buckwheat
	Eriogonum gracile	slender eriogonum
	Rumex hymenosepalus	wild rhubarb

RHAMNACEAE		**Buckthorn Family**
	Ceanothus megacarpus var. *megacarpus*	bigpod lilac
ROSACEAE		**Rose Family**
	Adenostoma fasciculatum	chamise
	Heteromeles arbutifolia	toyon
RUBIACEAE		**Madder Family**
	Galium angustifolium	narrow-leaved bedstraw
	Galium aparine	common bedstraw
SOLANACEAE		**Nightshade Family**
*	*Nicotiana glauca*	tree tobacco
	Solanum douglasii	Douglas' nightshade
	Solanum xanti	chaparral nightshade
TAMARICACEAE		**Tamarisk Family**
*	*Tamarix ramosissima*	Mediterranean tamarisk
URTICACEAE		**Nettle Family**
*	*Urtica urens*	dwarf nettle
VIOLACEAE		**Violet Family**
	Viola pedunculata	johnny jump-ups

This Page Intentionally Left Blank