BIOLOGICAL TECHNICAL REPORT

FOR

THE BAKER INDUSTRIAL PROJECT

LOCATED IN THE CITY OF LAKE ELSINORE, RIVERSIDE COUNTY, CALIFORNIA

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INFORMATION SUMMARY

A. Report Date: September 2, 2025

B. Report Title: Biological Technical Report for the Baker Industrial Project

C. Project Site Location: Lake Elsinore, Riverside County, California

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F. Report Summary:

This document provides the results of general biological surveys and focused biological surveys for the approximately 136.01-acre Baker Industrial Project (the Project) located in the City of Lake Elsinore, Riverside County, California [Exhibit 1 – Regional Map] within an un-sectioned portion of Township 5 South, Range 5 West, of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map Lake Elsinore, California [Exhibit 2 – Vicinity Map]. The Project site is located southwest of Interstate-15, the Lake Elsinore Outlet Center and Temescal Creek/Collier Marsh.

This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The overall Project is presented in this report as five distinct components, including the main Industrial Project (onsite), Baker Street improvements (offsite), a proposed City maintenance area along Baker Street (offsite), addition street improvements (offsite), and proposed Conserved Lands.

The Project site is located within Subunit 3 (Elsinore) of the Elsinore Area Plan of the MSHCP, with approximately 89.44 acres of the site within Criteria Cell 4157, 4166 and Cell Group W (Cell 4060 and 4067). All development proposed within Criteria Cells is either located in areas not described for conservations or consists of street improvements within existing developed

roadways that will not expand the existing roadway. In addition, the Project will conserve approximately 33.66 acres, including 32 acres within the northeastern portion of Cell 4166 that includes and is adjacent to Alberhill Creek/Collier Marsh. The proposed development and conservation are consistent with the Reserve Assembly requirements for the applicable Criteria Cells.

The Project site is also in the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA), Criteria Area Plant Species Survey Area (CAPSSA). The Project will impact five special-status plants, including San Diego ambrosia (*Ambrosia pumila*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), vernal barley (*Hordeum intercedens*) and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). San Diego ambrosia is a target NEPSSA species and Coulter's goldfields is a target CAPSSA species, and as such mitigation is required for the loss of habitat with long-term conservation value for both species. Impacts to the other three species is covered by the MSHCP without mitigation required.

To mitigate the loss of 0.44 acre of habitat with long-term conservation value for San Diego ambrosia, the Project will restore approximately 1.32 acres of degraded habitat in the Alberhill Creek floodplain with San Diego ambrosia. To mitigate the loss of 0.50 acre of habitat with long-term conservation value for Coulter's goldfields, the Project will restore/expand Coulter's goldfields habitat in two areas that will be separate from the San Diego ambrosia mitigation area. The first area consists of the expansion of Vernal Pool 3 by approximately 0.75 acre. The second area consists of the expansion of another 0.75-acre area in the Alberhill Creek floodplain adjacent to an existing population of Coulter's goldfields and vernal barley.

The Project site is in the MSHCP burrowing owl survey area. Glenn Lukos Associates (GLA) biologists conducted focused burrowing owl surveys, and no burrowing owls were detected within the development footprint. Furthermore, burrowing owl sign was not detected within the disturbance limits, i.e., there was no evidence of past owl use. However, a single owl pellet was observed at a burrow along a fence line approximately 150 feet away from the disturbance limits within the adjacent lands being conserved by the Project (i.e., the RCA Conserved Land). It was not clear how old the pellet was but given that no owls were observed during the surveys, the pellet likely indicates a transient owl that was not occupying the site during the focused surveys. Pursuant to the MSHCP, pre-construction burrowing owl surveys will be conducted within 30 days of site disturbance. 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 U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), collectively referred to in the context of the MSHCP as the "Wildlife Agencies", and the proponent will need to coordinate with the RCA and the Wildlife Agencies to determine appropriate measures, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance.

GLA biologists conducted presence/absence surveys for Crotch's bumble bee (*Bombus crotchii*) in 2024 and 2025 within all areas of suitable habitat. Multiple individuals of Crotch's bumble bee (CBB) were detected onsite and immediately offsite in 2024, but none were observed in 2025. The Project will impact a portion of CBB foraging habitat containing floral resources

utilized by CBB, including the various flowering shrubs as well as the annual wildflower species scattered amongst the scrub and grassland habitats located on the Project site. Because the 2024 CBB detections represented snapshots of individual plants where CBB were detected during the survey visits, the exact acreage of onsite foraging habitat utilized by CBB could not be determined based on the limitations of the survey protocol. Although the removal of habitat where CBB is not present at the time of removal does not constitute "take" pursuant to the California Endangered Species Act (CESA), including all scrub and grassland habitats within the proposed development footprint, the Project will impact up to 73.41 acres of potential foraging habitat for CBB. In addition to foraging, CBB could nest and overwinter on the Project site. GLA did not observe any nests at the Project site incidental to the foraging surveys, although GLA acknowledges the difficulty in detecting nest locations. Without nests being detected, there is no evidence that the Project would disturb nests, and therefore, no evidence that "take" would occur due to nest impacts. Similarly, although GLA did not conduct surveys during the CBB overwintering period, without evidence of overwintering, there is no evidence that "take" would occur from disturbing overwintering sites.

The CBB is not a MSHCP Covered Species and therefore impacts to CBB are not mitigated by the MSHCP. However, the MSHCP does include acquisition of sage scrub and grasslands areas that provide habitat for CBB. Because the species is not covered by MSHCP, if the Project would "take" CBB individuals, then the Project would require an Incidental Take Permit (ITP) from CDFW for that "take" to be authorized. The removal of foraging habitat is itself not "take", and without the confirmation of nesting and overwintering uses at the Project site, there is no evidence that "take" would occur. However, the loss of CBB habitat would be potentially significant without mitigation.

The Project includes measures to mitigate the loss of habitat and has already conserved 33.66 acres of land as part of the RCA Conserved Lands, which includes 25.58 acres of grassland with the potential to support CBB foraging, nesting and/or overwintering. Per Section 6.5 above, the Project is committing to restore a portion of the 25.58 acres to perform the translocation of San Diego ambrosia. The restoration of those lands will be conducive to CBB use by removing non-native plant resources that do not support CBB foraging and including appropriate CBB floral resources in the plant palette for the restoration activities. In addition, as part of its participation with the MSHCP, the Project will pay MSHCP development fees, which will contribute to the funding, acquisition, and conservation of lands contributing to the MSHCP Reserve. Since the adoption of the MSHCP, more than 24,000 acres of sage scrub and grasslands have been acquired for the MSHCP Reserve. The Project's payment of development fees will fund additional acquisition of lands that will support biological functions for CBB and contribute to the conservation of the species in Western Riverside County.

The Project, as designed, will impact jurisdictional waters, including approximately 0.64 acre of Regional Water Quality Control Board (Regional Board) jurisdiction and 0.66 acre of CDFW jurisdiction. Regional Board jurisdictional impacts consist of 0.47 acre of non-wetland waters associated with five ephemeral drainage features and 0.17 acre of wetlands associated with the edges of Vernal Pool 2 and Vernal Pool 3 (also MSHCP vernal pools). Impacts to CDFW jurisdiction consist of 0.50 acre of non-riparian stream (also MSHCP riverine) and 0.16 acre of Vernal Pool 3. The Project will mitigate impacts to ephemeral drainage features (0.47 acre of

Regional Board jurisdiction and 0.50 acre of CDFW jurisdiction) offsite through the purchase of mitigation credits from the Riverpark Mitigation Bank. The Project will mitigate impacts to 0.17 acre of wetlands associated with Vernal Pool 2 and Vernal Pool 3 by expanding the existing Vernal Pool 3 on the opposite (northern) side from the proposed impacts. The proposed mitigation will ensure there will be no net loss of jurisdictional waters. Furthermore, the Project has been designed so that the post-Project hydrology relative to the offsite RCA Conserved Lands will mimic the existing conditions. In conjunction with the rare plant mitigation, the Project will include rare plant species in the vernal pool expansion area, such as Coulter's goldfields. The Project will develop a Habitat Mitigation and Monitoring Plan (HMMP) that will address mitigation for the vernal pools and all associated species, except for the San Diego ambrosia mitigation, which will be addressed through a separate San Diego Ambrosia Translocation Plan. The HMMP will identify site preparation methods, the proposed plant palette, proposed success criteria, and maintenance/long-term monitoring procedures. The HMMP will be submitted to the City, RCA, USFWS, CDFW, the Regional Board and the California Natural Resources Agency (CNRA) for review and approval prior to implementation of the proposed mitigation.

The RCA issued Joint Project Review (JPR) Findings on July 31, 2025 [Appendix I], concluding that the Project is consistent with 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). Consistency will be achieved with the implementation of measures presented in the JPR Findings. The measures included those that were documented as part of the JPR application package and are also included in this document.

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general biological surveys and focused biological surveys for the approximately 136.01-acre Baker Industrial Project (the Project) located in the City of Lake Elsinore, Riverside County, California. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 136.01-acre Project site, all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA and MSHCP requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) assessment for the presence of wildlife migration and colonial nursery sites; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to the definition of “Waters of the United States" (33 CFR Part 328.3(a)), as regulated under Section 404 of the Clean Water Act (CWA); Regional Water Quality Control Board (Regional Board) jurisdiction pursuant to the current definition, or any historic definition, of waters of the U.S.; and Section 13260 of the California Water Code (CWC); and California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Observations of all plant and wildlife species were recorded during the biological studies and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site comprises approximately 136.01 acres in the City of Lake Elsinore, Riverside California [Exhibit 1 – Regional Map] and is located within an un-sectioned portion of Township 5 South, Range 5 West, of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map Lake Elsinore, California [Exhibit 2 – Vicinity Map]. The Project site is located southwest of

Interstate-15, the Lake Elsinore Outlet Center and Temescal Creek/Collier Marsh. The Project site includes the following Assessor's Parcel Numbers (APNs):

Onsite

378-020-014
378-020-015
378-020-016
378-020-028
378-020-029
378-020-030
378-020-031
378-020-036
378-020-037
378-020-048

Offsite

378-020-012
378-020-038
378-020-039
378-020-042
378-020-043
378-114-064
389-080-058
389-110-010

RCA Conserved Lands

378-020-024
378-020-033
378-020-034
378-020-040
378-020-041
378-020-054

1.3 Project Description

The overall Project site totals 136.01 acres and is presented here in five distinct components:

1. The Industrial Project development footprint (referred to as the "onsite" portion of the Project)
2. Baker Street Improvements (offsite)
3. A proposed City Maintenance Area (offsite) – to be located along the edge of Baker Street

4. Additional Street Improvements (offsite) – includes improvements to Pierce Street and Nichols Road, the installation of utilities in Terra Cotta Road and the installation of a force main in Collier Avenue from Nichols Road to Riverside Drive
5. RCA Conserved Lands – includes 33.66 acres of lands that have been conserved by the Project, located northeast of the proposed City Maintenance Area and southeast of Pierce Street/Nichols Road.

All impacts will be permanent. There will be no temporary impacts. All construction staging will occur within the development footprint and/or the offsite improvements areas. The Project will not require additional impacts outside of the development footprint for staging. All fuel modification/weed abatement zones will be contained within the impact limits for both the onsite and offsite project components. The five Project components are depicted in Exhibit 3 [Project Components Map]. Table 1-1 summarizes the acreages of these five components, broken out for portions inside versus outside of MSHCP Criteria Cells[1].

Table 1-1. Summary of Project Components

Project Component	Inside Criteria Cells (Acres)	Outside Criteria Cells (Acres)	Total (Acres)
Industrial Project	34.25	31.56	**65.81**
Baker Street Improvements	4.45	1.66	**6.11**
City Maintenance Area	2.44	0.29	**2.73**
Additional Street Improvements	16.30	11.40	**27.70**
RCA Conserved Lands	32.00	1.66	**33.66**
Total	**89.44**	**46.57**	**136.01**

1.3.1 Industrial Project (Onsite)

The Baker Industrial Project (Project) is proposing two industrial buildings for a total of approximately 1,002,000 square feet of industrial space [Appendix G – Conceptual Grading Plan]. The proposed site plan provides adequate standard vehicle parking fields and an additional trailer parking field along the southern end of the property.

The Project grading consists of a development pad graded to convey onsite and offsite storm water northerly while maintaining the hydrologic regime of the property and surrounding tributaries. Larger slopes and associated retaining walls are located along the southerly property line.

The Project will accept offsite flows from the southern tributaries (developed) through two flow-by basins also located along the southerly property line. The offsite storm flows will continue to

[1] The Project component acreage is divided between lands within Criteria Cells versus lands outside of Criteria Cells, consistent with the requirements of the MSHCP analyses. MSHCP Criteria Cells are geographic areas that are numbered with unique IDs, which links geographical areas to specific MSHCP conservation criteria for the area.

be conveyed through the Project storm drain system and discharged in flow and quantity at their historical locations along the northern side of Baker Street.

The onsite flows will be collected through inlets/catch basins and conveyed through the proposed storm drain system to one of three underground storm chambers. With limited opportunities to infiltrate onsite storm flows due to impermeable site soils, each chamber system will treat the pollutants of concern and discharge all treated flows consistent with historical quantities and flow characteristics along the northerly right-of-way of Baker Street.

The Project includes the preparation of a Preliminary Hydrology Study to analyze the existing condition storm flows across the property as well as the proposed condition conveyances to existing discharge locations. The hydrology study will confirm flow values based on standard storm intensities and discharge volumes, flow rates, and velocities. The Project also includes a Preliminary Water Quality Management Plan (WQMP) that identifies the Best Management Practices (BMPs) proposed to be implemented to treat project related pollutants for onsite and offsite impervious improvements. The WQMP will identify the post-construction treatment control and site design BMPs to treat specific pollutants from onsite impervious areas as well as the public right-of-way prior to discharge at historical locations on the northern side of the proposed Baker Street corridor improvements. BMPs located within the public right-of-way of Baker Street and Nichols Road will treat roadway specific pollutants within bio-retention/modular wetland facilities upstream of the specified discharge locations. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented prior to onsite and offsite project construction disturbance. The SWPPP will focus on the design, installation, and treatment of construction related pollutants through the implementation of BMPs. The SWPPP document will be approved through the State of California and the Project will be registered as required by the Construction General Permit. The Project will be monitored before, during and after rain events to ensure BMP implementation and effectiveness in protecting downstream habitats and receiving water bodies.

The Project proposes to construct an 8-inch sewer pipeline within Baker Street to convey wastewater flows northwesterly to the existing Nichols Road Lift Station. The pipeline is proposed at standard depth and will connect to the existing Elsinore Valley Municipal Water District (EVMWD) 15-inch sewer line constructed within the Pierce and Baker intersection. The Nichols Lift Station will require an upgrade to its ultimate build-out capacity. The lift station upgrades will occur within the existing EVMWD parcel and will also require 7,650 feet of an upsized (16-inch) force main that would be installed in Nichols Road and Collier Avenue to connect to a discharge manhole at the intersection of Collier Avenue and Riverside Drive. The force main and downstream gravity sewer improvements under the revised alignment would keep all improvements within existing public right-of-way.

For water service, an EVMWD 36-inch 1434 Zone CIP line will be installed in Nichols Road from Terra Cotta Road to Baker Street and in Baker Street to the existing 20-inch line that supplies the Baker Reservoir. The Project will receive water service by making two connections to the 20-inch line in Baker Street and will construct a looped piping system onsite between the two connections. EVMWD does not allow fire hydrants to be served by private systems, so the onsite loop will be public. The onsite line will be located in an easement and be located in

accordance with EVMWD requirements which includes not locating the line beneath landscaped medians or parking stalls. The 1434 Zone has a large surplus of reservoir storage capacity and additional storage is not required to provide service to the Project.

1.3.2 Baker Street (Offsite)

Existing Baker Street is an unimproved dirt road with a 60-foot-wide right-of-way. The Project proposes to dedicate four feet on each side of Baker Street to the ultimate 68 feet right-of-way required by the City of Lake Elsinore's (City) Collector roadway designation and as listed within the City's circulation element. The Project will also be realigning Baker Street for a direct connection and new intersection with Nichols Road, which is discussed below under "Additional Street Improvements". The Baker Street Collector section consists of a six-inch curb and gutter, a five-foot-wide sidewalk within a 10-foot parkway and 22 feet of pavement from the centerline to lip of gutter on each side of the street. Baker Street is proposed to be elevated an average of five feet above its existing elevations to support drainage conveyance and flood protection of the public right-of-way. The northeast parkway of Baker Street will slope down from the proposed five-foot sidewalk to daylight within the northerly properties.

The Project proposes to elevate the road surface of Baker Street to support drainage protection and conveyance. Along the northern edge of Baker Street, a graded and landscaped slope will daylight to existing ground within the parcels north of existing Baker Street right-of-way. The proposed slope will provide areas to safely construct storm drain outlets that will convey historical storm flows to existing flow lines and environmentally sensitive areas identified within the Project studies of these properties. The storm outlets will include energy dissipation improvements to control the storm water outlet depth and velocity to mimic existing conditions.

1.3.3 City Maintenance Area (Offsite)

As noted above, the Project proposes to elevate the road surface of Baker Street to support drainage protection and conveyance. Along the northern edge of Baker Street, a graded and landscaped slope will daylight to existing ground within the parcels north of existing Baker Street right-of-way. The proposed slope will provide areas to safely construct storm drain outlets that will convey historical storm flows to existing flow lines and environmentally sensitive areas identified within the Project studies of these properties consistent with historical flow conveyances. The storm outlets will include energy dissipation improvements to control the storm water outlet depth and velocity to mimic existing conditions. Specifically, the Project proposes constructing three water spreading structures that are designed to mimic the existing sheet flow conditions into the adjacent RCA Conserved Lands [Sheets 1 and 2 of Appendix G]. The spreading structures will be constructed on the northeastern side of Baker Street adjacent to each of the three vernal pools described below. The pre- and post-Project hydrology relative to the three vernal pools are summarized below in the impact analysis as well as being presented in Appendix G.

A maintenance access road is proposed along the toe-of-slope for ongoing maintenance of the slope, the associated landscaping, any required fencing, and the outlet structures. Where sensitive environmental areas exist (vernal pools identified within the Project environmental studies), the improvements are proposed to be scaled back to minimize or eliminate impacts in and adjacent

to the defined zones. Construction buffers will be implemented to reduce accidental disturbance, and the areas will be clearly delineated and recognizable to construction crews/personnel.

1.3.4 Additional Street Improvements (Offsite)

In addition to the Baker Street improvements described above, the Project will also improve Pierce Street and Nichols Road. The Project will realign Baker Street for a direct connection and new intersection with Nichols Road. The intersection design will likely consist of signal pole placement consistent with the ultimate build-out of Nichols Road (Urban Arterial Highway – 120' right-of-way). Nichols Road improvements will likely consist of an interim intersect with appropriate pavement tapering to the east and west leading away from the new intersection with Baker Street. Minor roadway resurfacing may be required along the existing Nichols Road segment between the Baker Street intersection and the Collier Avenue intersection. The Nichols and Collier intersection may also include minor surface improvements, revised lane striping and potential traffic control/signage improvements.

Pierce Street would be improved to its ultimate 60-foot full-width right-of-way per the City's General Plan Circulation Element standard for a Collector Street with a 6-inch curb, standard gutter, 5-foot-wide sidewalk within an overall 10-foot parkway, and 18 feet of pavement from centerline to lip-of-gutter on each side of the street from Nichols Road southwest past the project frontage to connect to Hoff Avenue, creating a second means of emergency access. The section of Pierce Street from the project frontage to Hoff Road would be paved within the existing right-of-way, creating a 24-foot-wide roadway along this segment. All street improvements would be constructed consistently with City standards and regulations.

In addition to the specific street improvements, the Project will construct approximately 7,650 feet of 16-inch force main in Nichols Road and Collier Avenue to a discharge manhole at the intersection of Collier Avenue and Riverside Drive. Lastly, the Project will include utility improvements consisting of a Southern California Edison (SCE) line extension that will be installed underground from a lift station to be constructed at Baker Street and Nichols Road. The SCE line extension would go from the lift station along Nichols Road and then along Terra Cotta Road. All work for the line extension would be conducted within the existing right-of-way/pavement.

1.3.5 RCA Conserved Lands

The proposed Project has already conserved approximately 33.66 acres of land to contribute to the MSHCP Reserve (RCA Conserved Lands). The Conserved Lands are bordered by the Baker Street, Pierce Street and Nichols Road improvements. The Project Applicant (Ecosystem Investment Partners [EIP]) placed the lands into conservation with the Regional Conservation Authority (RCA) prior to completion of the Joint Project Review (JPR). This is a unique circumstance but one that is allowed by the MSHCP. As described below, the Project is proposing several types of mitigation within with the Conserved Lands, including San Diego ambrosia (*Ambrosia pumila*) translocation, vernal pool expansion/restoration, and mitigation for other MSHCP plants, including Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). If the long-term management of these mitigation areas exceeds that which the RCA receives funding

for through the MSHCP, the Project would provide an endowment to fund supplemental management requirements.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 MSHCP Background

The Western Riverside County MSHCP is a comprehensive habitat conservation/planning program for Western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project-specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA.

The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered "adequately conserved". A number of these species have survey requirements based on a project's occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP *Volume I, Section 6.1.3*), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP *Volume I, Section 6.3.2*) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP *Volume I, Section 6.3.2*); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo (*Vireo bellii pusillus*, LBV), southwestern willow flycatcher (*Empidonax traillii extimus*, SWWF), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*, WYBC), and three species of listed fairy shrimp (MSHCP *Volume I, Section 6.1.2*). An additional 28 species (MSHCP *Volume I*, *Table 9.3*) not yet adequately conserved have species-specific objectives in order for the species to become adequately conserved. However, these species do not have project-specific survey requirements.

The goal of the MSHCP is to have a total Conservation Area in excess of 500,000 acres, including approximately 347,000 acres on existing Public/Quasi-Public (PQP) Lands, and approximately 153,000 acres of Additional Reserve Lands targeted within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into Subunits and further divided into Criteria Cells and Cell Groups (a group of criteria cells). Each Cell Group and ungrouped, independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if lands

are targeted for inclusion in the MSHCP Reserve. In addition, all Projects located within the Criteria Area are subject to the Joint Project Review (JPR) process, where the Project is reviewed by the Regional Conservation Authority (RCA) to determine overall compliance/consistency with the biological requirements of the MSHCP.

1.4.2 Relationship of the Project Site to the MSHCP

The Project site is located within Subunit 3 (Elsinore) of the Elsinore Area Plan of the MSHCP, with approximately 89.44 acres of the site within Criteria Cell 4157, 4166, 4169, 4266 and Cell Group W (Cell 4060 and 4067) [Exhibit 4A – MSHCP Map]. Table 1-2 provides a breakdown of Project site acreages for those portions within the Criteria Area.

Table 1-2. Criteria Cell Acreages for the Project Site

Criteria Cell	Onsite Development (Acres)	Offsite Development (Acres)	RCA Conserved Land (Acres)	Total (Acres)
4060 (Cell Group W)	0	1.26	0	**1.26**
4067 (Cell Group W)	0	3.39	1.89	**5.28**
4157	0	2.83	0	**2.83**
4166	34.25	9.90	30.11	**74.26**
4169	0	3.26	0	**3.26**
4266	0	2.55	0	**2.55**
Total	**34.25**	**23.19**	**32.00**	**89.44**

Criteria Cell #4157

Approximately 2.83 acres of the Project site is within Criteria Cell #4157, consisting of a portion of existing Nichols Road that will be improved by the Project. The MSHCP Criteria for the Cell states the following:

> *Conservation within this Cell will contribute to assembly of Proposed Core 1. Conservation within this Cell will focus on coastal sage scrub, chaparral and grassland habitat. Areas conserved within this Cell will be connected to coastal sage scrub and chaparral habitat proposed for conservation in Cell #4156 to the west and to chaparral and grassland habitat proposed for conservation in Cell #4057 to the north. Conservation within this Cell will range from 45%-55% of the Cell focusing in the western half of the Cell.*

The portion of the Project that is in Cell #4157 is in the northeastern portion of the Cell and outside of the portion described for conservation. Furthermore, the portion of the Project within the Cell is the western limits of proposed improvements to Nichols Road, which is a Covered Road. Improvements to the portion of Nichols Road will consist of pavement re-surfacing

tapering away from the proposed intersection at Nichols Road and Baker (outside of Criteria Cells). The Project will be consistent with Reserve Assembly requirements for Cell #4157.

Criteria Cell #4166

Approximately 74.26 acres of the Project site is within Criteria Cell #4166, consisting of the central portions of the onsite Industrial component, offsite Baker Street improvements and the offsite proposed City Maintenance Area, and a very small portion of the proposed Nichols Road/Baker Street intersection. The MSHCP Criteria for the Cell states the following:

> *Conservation within this Cell will contribute to assembly of Proposed Linkage 2. Conservation within this Cell will focus on meadow, marsh, riparian scrub, woodland and forest habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to riparian scrub, woodland, forest and grassland habitat proposed for conservation in Cell Group W to the north and to meadow, marsh and grassland habitat proposed for conservation in Cell #4169 to the east. Conservation within this Cell will range from 15%-25% of the Cell focusing in the northeastern portion of the Cell.*

Criteria Cell #4166 is approximately 161.77 acres, with a described conservation range of 25 to 41 acres. The proposed Project is in the southwestern 40% of the Cell, whereas the Cell Criteria describes the northeastern portion of the Cell, focusing on habitats associated with Alberhill Creek and Collier Marsh. The Project will conserve approximately 32.66 acres of land, the majority of which (30.14 acres) is located in the central and northern portions of the Cell and consists predominantly of grassland habitat adjacent to Alberhill Creek, but which also contains riparian areas, playa habitat and vernal pools. Besides the portion of the proposed Project in the Cell, approximately 3.72 acres of the Cell consists of existing Additional Reserve Land (ARL); 4.61 acres consist of MSHCP Covered Road area for Collier Avenue and 17.46 acres of additional existing development (the Lake Elsinore Outlets and Interstate-15); 56.48 acres consist of undeveloped lands potentially available for conservation, consisting predominantly of Alberhill Creek and Collier Marsh; and 8.22 acres consist of undeveloped lands in the southwestern corner of the Cell (opposite side of the proposed Project from Alberhill Creek) that would not contribute to Reserve Assembly goals for Cell 4166.

The proposed and existing conservation (33.86 acres) is in the middle of the range described for Cell 4166. The remaining undeveloped lands available for conservation consist of Alberhill Creek, its adjacent floodplain and Collier Marsh. Most of these areas are not likely to be developed. Cell 4166 is expected to exceed its goal with future conservation in the Cell and additional lands are not needed from the Project besides what is being proposed for conservation.

Criteria Cell #4169

Approximately 3.26 acres of the Project site is within Criteria Cell #4169, consisting of a portion of existing Collier Avenue within which a force main sewer will be installed. The MSHCP Criteria for the Cell states the following:

Conservation within this Cell will contribute to assembly of Proposed Linkage 2. Conservation within this Cell will focus on meadow and marsh habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to meadow and marsh habitat proposed for conservation in Cell #4166 to the west and to meadow, marsh and grassland habitat proposed for conservation in Cell #4266 to the south. Conservation within this Cell will range from10%-20% of the Cell focusing in the southwestern portion of the Cell.

The installation of the force main will occur within the existing paved alignment for Collier Avenue. Reserve Assembly requirements do not apply to the improvements in Cell #4169 since Collier Avene is already developed.

Criteria Cell #4266

Approximately 2.55 acres of the Project site is within Criteria Cell #4266, consisting of a portion of existing Collier Avenue within which a force main sewer will be installed. The MSHCP Criteria for the Cell states the following:

Conservation within this Cell will contribute to assembly of Proposed Linkage2. Conservation within this Cell will focus on meadow, marsh, riparian scrub, woodland and forest habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to meadow, marsh and grassland habitat proposed for conservation in Cell#4169 to the north. Conservation within this Cell will range from 30%-40% of the Cell focusing in the western portion of the Cell.

The installation of the force main will occur within the existing paved alignment for Collier Avenue. Reserve Assembly requirements do not apply to the improvements in Cell #4266 since Collier Avene is already developed.

Cell Group W

Approximately 6.54 acres of the Project site is within Cell Group W (1.26 acres in Cell# 4060 and 5.28 acres in Cell# 4067), consisting of offsite improvements to Nichols Road from the proposed intersection with Baker Street on the west to the existing Collier Avenue intersection on the east, and a portion of the proposed force main installation in the existing paved portion of Collier Avenue. The MSHCP Criteria for the Cell Group states the following:

Conservation within this Cell Group will contribute to assembly of Proposed Core 1. Conservation within this Cell Group will focus on riparian scrub, woodland and forest habitat associated with Alberhill Creek and adjacent coastal sage scrub and grassland habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub, riparian scrub, woodland and forest habitat proposed for conservation in Cell #3964 to the north, to coastal sage scrub habitat proposed for conservation in Cell #4057 to the west, and to grassland, riparian scrub, woodland and forest habitat proposed for conservation in Cell #4166 to the south. Conservation within this Cell Group will range from 80%-90% of the Cell Group focusing in the northwestern portion of the Cell Group.

The improvements within Cell Group W will occur to existing portions of Nichols Road, which is a MSHCP Covered Road. As noted above, Nichols Road is identified as an "expressway" in the General Plan Circulation Element, with a 184-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Nichols Road within the Criteria Area is 184 feet, encompassing all road elements, including the road shoulder. The Project proposes minor roadway resurfacing along the existing Nichols Road segment between the proposed Nichols Road/Baker Street intersection and Collier Avenue. The Nichols and Collier intersection may also include minor surface improvements, revised lane striping and potential traffic control/signage improvements. The proposed improvements will not exceed the maximum allowable covered width. The Project will be consistent with Reserve Assembly requirements for Cell Group W.

The Project site is also in the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA), Criteria Area Plant Species Survey Area (CAPSSA) and the Burrowing Owl Survey Area [Exhibit 4B – MSHCP Species Survey Areas]. The following NEPSSA and CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present):

Narrow Endemic Plants:

- Munz's onion (*Allium munzii*)
- San Diego ambrosia (*Ambrosia pumila*)
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- Spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- San Miguel savory (*Clinopodium chandleri*)
- Hammitt's clay-cress (*Sibaropsis hammittii*)
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Criteria Area Plants:

- Thread-leaved brodiaea (*Brodiaea filifolia*)
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)
- Parish's brittlescale (*Atriplex parishii*)
- Smooth tarplant (*Centromadia pungens* spp. *laevis*)
- Round-leaved filaree (*California macrophylla*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- Little mousetail (*Myosurus minimus* ssp. *apus*)

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals

for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then "biologically equivalent or superior preservation" must be provided.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled biological data consisting of the following main components:

- General biological surveys and vegetation mapping to generally characterize biological resources present.
- Habitat assessments for special-status species
- Site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA and the MSHCP including:

    - Rare plants
    - Fairy shrimp
    - Crotch's bumble bee
    - Burrowing owl
    - Least Bell's vireo
    - Southwestern willow flycatcher

- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the Corps, Regional Board, CDFW, and the MSHCP riparian/riverine areas and vernal pools policy.

Prior to the initial site visit and for each subsequent year in which fieldwork was performed the following data sources was conducted for the Project site:

- The California Natural Diversity Database (CNDDB) for the USGS 7.5′ quadrangles: Lake Elsinore and surrounding quadrangles (CDFW 2020, 2021, 2022, 2023 and 2024)
- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v9.5) (CNPS 2020, 2021, 2022, 2023 and 2024)
- The Consortium of California Herbaria CCH2 data portal (CCH 2020, 2021, 2022, 2023 and 2024)
- Natural Resource Conservation Service soil data (NRCS 2020, 2021, 2022, 2023 and 2024)
- MSHCP species, habitat, and sensitive soil maps (Riverside County TLMA 2003)
- Current and historic aerial photography (Google Earth 2020, 2021, 2022, 2023 and 2024)
- USFWS Information for Planning and Consultation (IPaC 2020, 2021, 2022, 2023 and 2024)
- USFWS National Wetlands Inventory (NWI 2020, 2021, 2022, 2023 and 2024)

Biological surveys within the Project site were conducted on foot for all of the Project components, including the RCA Conserved Lands, as identified in Table 2-1, which provides a summary list of survey dates, survey types, and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site

Survey Type	Survey Dates	Biologists
2020		
Least Bell's Vireo Focused Surveys	4/13, 5/5, 5/18, 5/28, 6/8, 6/19, 7/15, 7/28	SC, JA, AN
Southwestern Willow Flycatcher Focused Surveys	5/18, 6/9, 6/23, 7/1, 7/16	JA
Rare Plant Surveys	4/13, 4/23, 5/5, 5/20	JS, DM
Special Status Animal Habitat Assessments	4/13	DM
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	4/13, 4/23	JS, DM
Evaluation of MSHCP Riparian/Riverine Areas	4/13, 4/23	JS, DM
2021		
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	2/9	LLG, CW
Delineation of Federal and State Jurisdictional Waters	2/9	LLG, CW
2022		
Vegetation Mapping	3/9, 4/4	SC
Burrowing Owl Focused Surveys	3/9, 4/4, 5/2, 6/3	SC
Rare Plant Surveys	3/14, 4/4, 4/6, 5/3	JS, WJ
Delineation of Federal and State Jurisdictional Waters	4/20, 7/29	LLW
2023		
Dry Season Fairy Shrimp Surveys (Soil collection)	10/19, 11/2	DM, SC, CW
2024		
Wet Season Fairy Shrimp Surveys	1/26 to 5/22	SC, CW
Crotch's Bumble Bee Focused Surveys	5/22, 7/4	JF, SC
2025		
Crotch's Bumble Bee Focused Surveys	4/1, 6/3, 7/7	SC, IR
SC = Stephanie Cashin; JA = Jeff Ahrens; AN = April Nakagawa, DM = David Moskovitz, LLG = Lesley Lokovic Gamber, CW = Chris Waterston, JS = Jillian Stephens, WJ = Wanisa Jaikwang, IR = Ian Rhodes, JF = Jason Fitzgibbon		

Individual plants and wildlife species were evaluated in this report based on their special status. Plants were considered special status based on one or more of the following criteria:

- Listing through the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA)
- CNPS California Rare Plant Inventory Rank 1A, 1B, 2A, 2B, 3, or 4

Wildlife species were considered special status based on one or more of the following criteria:

- Listing through FESA or CESA
- Designation by the state as a Species of Special Concern (SSC) or California Fully Protected (FP) species

Vegetation communities and habitats were considered special status based on one or more of the following criteria:

- Global (G) and/or state (S) ranking of category 1–3 based on classification by CDFW (see Section 3.2.2 for further explanation)
- Riparian/riverine habitat

2.1 Botanical Resources

A site-specific survey program was designed by GLA to accurately document the botanical resources within the Project site. As described below, the survey program incorporated a literature search, vegetation mapping, general botanical surveys, habitat assessments, and focused botanical surveys to achieve the following goals: (1) prepare a detailed floral compendium (if applicable); (2) develop a list of special-status plant species to evaluate for the Project site; (3) perform site-specific habitat assessment for the target botanical species; and (4) if special status plants could potentially occur, conduct focused botanical surveys and prepare a map showing the distribution of sensitive botanical resources detected at the Project site.

2.1.1 Literature Search

Prior to conducting fieldwork, a thorough review of pertinent literature on the flora of the region was conducted using available literature and other historical records listed above in Section 2.0. Based on the results of the literature search and review of the relevant MSHCP sections, a list of target special-status botanical species that could occur within the Project site was developed.

2.1.2 Vegetation Mapping

The MSHCP utilizes vegetation mapping for the overall Plan area derived from baseline mapping conducted in 1995 and updated in 2005 and 2012. The 1995 baseline mapping classified vegetation types according to Holland (1986), the 2005 baseline mapping was conducted by CNPS according to the CNPS Vegetation Alliances of Western Riverside County (2005) in accordance with the National Vegetation Classification System (NVCS) and the 2012 baseline mapping adhered to A Manual of California Vegetation, Second Edition or MCVII (2008), which also aligns with the NVCS. The MSHCP states that the baseline vegetation map is limited by the timeframe within which the data were assembled as well as the precision of those data, and that the current extent and character of vegetation communities may differ from that depicted on the MSHCP vegetation map.

Vegetation communities within the Project site were mapped according to the List of Vegetation Alliances and Associations (or Natural Communities List, CDFW 2025), which is based on

MCVII. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. Vegetation types are classified into several levels, including formations, classes, alliances, and at the highest resolution, associations. The alliance represents groups of similar plant communities characterized by dominant species, and the association denotes specific vegetation communities with distinct species compositions. Vegetation communities on the Project site were mapped to the alliance level, and when appropriate for sensitive communities, to the association level, according to specific membership rules that include dominance of species, species composition, ecological context, geographic range, and floristic relationships.

2.1.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2020, 2022, 2023, 2024), CCH2 and the MSHCP (Dudek 2003).

Based on this information, vegetation profiles and a list of target sensitive plant species, including applicable NEPSSA and CAPSSA species, and habitats that could potentially occur within the Project site were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special-status plants that may occur within the Project site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

2.1.4 Botanical Surveys

GLA performed general and focused plant surveys for the Project site in both 2020 and 2022. GLA biologists Jillian Stephens and David Moskovitz performed plant surveys for the majority of the onsite part of the Project on April 13, and 23, and May 5 and 20, 2020, as well as for the proposed RCA Conserved Land. In 2022, GLA biologists Jillian Stephens and Wanisa Jaikwang repeated surveys for the onsite portion, including expanded areas that were not surveyed in 2020, as well as the offsite components. The 2022 surveys were conducted on March 14, April 4 and 6, and May 3, 2022. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFW 2018, CNPS 2001, Nelson 1984, USFWS 2000). Where appropriate, surveys were conducted at appropriate times based on precipitation and flowering periods. 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. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines. A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al. (2012), and Munz (1974).

2.2 Wildlife Resources

A site-specific survey program was designed to accurately document the wildlife resources within the Project site. As described below, the survey program incorporated a literature search, general wildlife surveys, habitat assessments, and focused wildlife surveys to achieve the following goals: (1) prepare a detailed faunal compendium; (2) develop a list of special-status wildlife species to evaluate for the Project site; (3) perform site-specific habitat assessment for special-status wildlife species, including those with MSHCP survey requirements; and (4) conduct presence/absence surveys and prepare a map showing the distribution of target sensitive wildlife species detected at the Project site, if applicable.

2.2.1 Literature Search

Prior to conducting fieldwork, a thorough review of pertinent literature on the wildlife of the region was conducted using available literature and other historical records listed above in Section 2.0. Based on the results of the literature search and review of the relevant MSHCP sections, a list of target special-status wildlife species that could occur within the Project site was developed.

2.2.2 General Wildlife Surveys

The presence of wildlife species was evaluated during the general biological survey visit; incidental wildlife detections during subsequent survey visits were also noted. The Project site was inspected by direct observation aided by binoculars. Wildlife detections were noted based on sight, call, tracks, scat, and other diagnostic sign. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visits. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFW 2016); Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians, 6th Edition (Collins and Taggert 2009) for amphibians and reptiles; the American Ornithological Society Checklist of Middle and North American Birds (Chesser et al. 2024) for birds; and Mammal Species of the World. A Taxonomic and Geographic Reference (Wilson and Reeder 2005) and Revised Checklist of North American Mammals North of Mexico (Bradley et al. 2014) for mammals.

2.2.3 Habitat Assessments for Special-Status Animals

Based on the results of the literature search, vegetation mapping, and a review of the relevant MSHCP sections, a list of target sensitive wildlife species that could occur within the Project site was developed. This list included species with MSHCP survey requirements and other special-status species that do not receive coverage under the MSHCP and require evaluation pursuant to CEQA.

During the initial site evaluation in 2020, the Project site was determined to contain potentially suitable habitat for the following Riparian/Riverine habitat or vernal pool-associated species

identified by MSHCP *Section 6.1.*2, which require evaluation through habitat assessments and focused surveys.

- Riverside fairy shrimp (*Streptocephalus woottonii*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)
- least Bell's vireo (*Vireo bellii pusillus*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)

Besides the riparian/riverine and vernal pool resources, the Project site is in the MSHCP burrowing owl (*Athene cunicularia*) survey area, requiring habitat assessments and focused surveys for the burrowing owl. Additionally, the Project site was assessed for Crotch's bumble bee (*Bombus crotchii*). The following describes the habitat assessments performed for the above-referenced species.

Fairy Shrimp

The Project site was initially assessed for fairy shrimp habitat by searching the site for depression features that might seasonally inundate long enough to support the life cycle of one or more species of listed fairy shrimp. GLA's first visit to the site occurred in April 2020 following a series of late season moderate to heavy rain events. GLA biologists David Moskovitz and Jillian Stephens identified four features that were ponded and remained ponded for a duration long enough to support fairy shrimp. Three of the features were subsequently identified as MSHCP vernal pools (discussed further below in this report), with the fourth feature consisting of a non-vernal pool stock pond. GLA's biologists observed later through subsequent visits that the four pools remained inundated for at least two months. As such, GLA's biologists determined that the pools had the potential to support three fairy shrimp species whose life cycles can complete in at least 10 to 20 days, including the listed vernal pool fairy shrimp and San Diego fairy shrimp (*B. sandiegonensis*) and the common versatile fairy shrimp (*B. lindahli*), and one species (the listed Riverside fairy shrimp) that needs longer ponding durations (around two months). As described below, protocol fairy shrimp surveys were completed in 2023 and 2024.

Burrowing Owl

The Project site is within the MSHCP Burrowing Owl Survey Area and therefore a habitat assessment is required (in accordance with the 2006 MSHCP Burrowing Owl Survey Instructions) to determine if focused burrow and burrowing owl surveys are warranted for the Project site. The Burrowing Owl Survey Instructions are divided into three components: Step I (habitat assessment), Step II-A (focused burrow survey), and Step II-B (focused burrowing owl survey). The Step I habitat assessment is used to determine if a Project site exhibits the base-habitat conditions for burrowing owls. According to the Burrowing Owl Survey Instructions, burrowing owls use a variety of natural and modified habitats for nesting and foraging that is typically characterized by low growing vegetation. Burrowing owl habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf-courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas.

GLA biologists David Moskovitz and Jillian Stephens conducted a Step I habitat assessment of the Project site on April 13, 2020. Additionally, a 500-foot buffer zone around the project boundary was visually inspected with binoculars. GLA's biologists determined that most of the Project site contains suitable habitat for burrowing owls, warranting focused surveys to follow Step II-A and II-B of the Burrowing Owl Survey Instructions (discussed below in Section 2.2.4).

Riparian Birds

As noted above, the MSHCP requires focused surveys for least Bell's vireo and southwestern willow flycatcher, where suitable habitat is present. GLA had prior knowledge that portions of the Project site contained habitat with the potential to support least Bell's vireo and southwestern willow flycatcher. Specifically, portions of Alberhill Creek that intersect the RCA Conserved Lands, and a portion of the Nichols Road right-of-way contain riparian vegetation exhibiting the appropriate structure to support breeding vireos and flycatchers. The survey methodology for each species is described below. GLA performed habitat assessments for other special-status riparian birds, including yellow warbler and yellow-breasted chat, as part of the broader CEQA impact analysis for special-status birds. However, these additional species are covered by the MSHCP without additional survey requirements. As such, focused surveys were not performed for the yellow warbler and yellow-breasted chat, although the presence of additional bird species were noted incidentally as part of focused surveys for least Bell's vireo and southwestern willow flycatcher.

Crotch's Bumble Bee

GLA biologists assessed the Project site for the potential to support Crotch's Bumble Bee (*Bombus crotchii*). The habitat assessment was performed following the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Based on the vegetation mapping and plant inventory obtained during focused plant surveys, GLA reviewed the list of all plants documented at the Project site to determine the extent of potential floral foraging resources for bumble bees. In addition, GLA's biologists evaluated the site for burrows as potential nesting and/or overwintering resources. Based on the presence of both foraging and nesting/overwintering resources, GLA's biologists determined that the Project site had the potential to support Crotch's bumble bee and that focused surveys were warranted.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The Project site is within the MSHCP Burrowing Owl Survey Area and contains suitable habitat for the burrowing owls (as confirmed through the Step I habitat assessment discussed above), and therefore focused surveys are required to be conducted pursuant to the 2006 MSHCP Burrowing Owl Survey Instructions. Step II-A (focused burrow survey) and Step II-B (focused burrowing owl survey) of the Burrowing Owl Survey Instructions describe the methodology for

conducting focused surveys. The guidelines stipulate that four focused survey visits (Step II-B) are to be conducted on separate dates between March 1 and August 31.

The entire Project site was evaluated for burrowing owls in 2022, including approximately 75 acres of potentially suitable habitat that was subject to focused burrowing owl surveys (Step II-B). Initial transects were walked within the onsite portion of the Project and along the various offsite alignments to identify all suitable burrows. Burrows were limited to the onsite portion of the Project and within the City Maintenance Area; however, burrows were not detected within the alignments of the Additional Street Improvements, nor within the Baker Street alignment. As such, focused burrowing owl surveys were concentrated in the onsite portion of the Project, the City Maintenance Area, and immediately adjacent portions of the RCA Conserved Lands where burrows were also mapped. These collective areas account for the approximately 75 acres of lands surveyed for burrowing owls. Step II-B of the Survey Instructions requires a minimum of four survey visits, indicating that a single biologist should not survey more than 100 acres per day. As the survey area for the Project consisted of 75 acres, the area could be covered by a single biologist in one day. GLA biologist Stephanie Cashin performed the focused owl surveys on March 9, April 4, May 2, and June 3, 2022, pursuant to MSHCP requirements.

The burrowing owl survey visits are to be conducted during a period from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset. All survey visits were conducted in the morning within the allotted timeframe. The 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. Table 2-2 summarizes the focused burrowing owl surveys conducted for the Project.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Biologist(s)	Survey Period Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/9/2022	SC	0600/0815	40/54	0-2	0
4/4/2022	SC	0600/0805	51/58	0-3	0
5/2/2022	SC	0600/0830	57/63	0-1	0
6/3/2022	SC	0600/0810	55/60	0-1	50
SC = Stephanie Cashin					

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 8 identifies the burrowing owl survey areas at the Project site, including a 500-foot visual survey area around the Project site. Transects were spaced at a maximum of 30 meters (100 feet) apart from each other, 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 100 meters along the transects, binoculars were used to scan the survey area for burrowing owls. 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. The 500-foot visual survey area was at least inspected with binoculars but was also accessed on foot

where feasible. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Least Bell's Vireo

GLA biologists Stephanie Cashin, Jeff Ahrens and April Nakagawa conducted focused surveys for the least Bell's vireo (*Vireo bellii pusillus*) for all suitable habitat areas within the Project site. Surveys were conducted in accordance with the 2001 USFWS survey guidelines, which stipulate that eight surveys should be conducted between April 10 and July 31, with a minimum of ten days separating each survey visit.

Focused surveys were conducted on April 13, May 5, 18 and 28, June 8 and 19, and July 15 and 28, 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 2-3 summarizes the vireo survey visits. The results of the vireo surveys are documented in Section 4.0 of this report.

Table 2-3. Summary of Least Bell's Vireo Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover
4/13/20	SC	0620/1000	60/68	0-1/0-1	100/100
5/5/20	JA	0550/0920	56/75	1-2/0-2	0/0
5/18/20	JA	0550/1100	57/69	1-2/1-2	80/50
5/28/20	AN	0600/1100	62/84	0-1/0-1	0/0
6/8/20	AN	0645/1100	58/75	8-10/8-10	0/0
6/19/20	SC	0615/1015	59/67	0-2/0-1	100/50
7/15/20	AN	0645/1100	62/77	0-1/0-1	100/0
7/28/20	AN	0700/1100	62/88	0-1/4-5	0/0
SC = Stephanie Cashin; JA = Jeff Ahrens; AN = April Nakagawa					

Southwestern Willow Flycatcher

GLA biologist Jeff Ahrens conducted focused surveys for the southwestern willow flycatcher (*Empidonax traillii extimus*) for all suitable habitat areas within the Project site. Surveys were conducted in accordance with the 2010 USFWS survey guidelines, which stipulate five survey visits between May 15 and July 17, divided into three survey periods. The southwestern willow flycatcher is one of three subspecies of willow flycatcher that occur within southern California but is the only subspecies that breeds in southern California. The other subspecies may occur in southern California as they migrate through the area onwards to northern breeding areas but will not breed in southern California. If present, these subspecies may be detected during the first and/or second survey periods. The presence of the southwestern willow flycatcher is determined by willow flycatchers that remain in southern California during the third survey period.

Focused surveys were conducted on May 18, June 9 and 23, and July 1 and 16, 2020. Pursuant to the survey guidelines, the surveys were conducted between one hour prior to sunrise and 10:00 a.m. Weather conditions during the surveys were conducive to a high level of bird activity. Table 2-4 summarizes the flycatcher survey visits. The results of the flycatcher surveys are documented in Section 4.0 of this report.

Table 2-4. Summary of Southwestern Willow Flycatcher Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
5/18/20	JA	0550/1100	57/69	1-2/1-2	80/50
6/9/20	JA	0600/0940	53/73	1-2/1-2	0/0
6/23/20	JA	0555/1000	58/68	0-1/0-1	100/0
7/1/20	JA	0555/0930	60/66	1-2/1-2	100/100
7/16/20	JA	0550/0930	59/72	1-2/0-1	30/0
JA = Jeff Ahrens					

Fairy Shrimp Surveys

The Project site contains four seasonally ponding features suitable for fairy shrimp that were surveyed (dry season surveys and wet season surveys) to determine the presence/absence of listed fairy shrimp, including one stock pond feature (Pool 4) within the Industrial portion of the Project, and three vernal pools that either overlap with the offsite improvements and maintenance area associated with Baker Street or are immediately adjacent in the RCA Conserved Lands. Dry season surveys were completed in 2023 [Appendix B – 2023 Dry Season Fairy Shrimp Report] and wet season surveys were completed for the 2023-2024 rainfall season [Appendix C – 2023/2024 Wet Season Fairy Shrimp Report].

Dry Season Surveys

Soil sample collection followed the USFWS Survey Guidelines for the Listed Large Branchiopods (Survey Guidelines). GLA biologist David Moskovitz (PER0010680-0) supervised the collection of soil samples along with GLA biologists Stephanie Cashin and Chris Waterston in October 2023. Soil samples were collected when the pools were dry using a hand trowel to collect intact chunks of soil from the top 1–3 cm of pool sediment. The number of soil samples collected from each of features was based on feature size according to the Survey Guidelines. Starting at the edge of each depression, samples were taken from equidistant points along the longest and widest transects of each depression. Additional samples were taken at the deepest part of each feature.

Soil samples of approximately 100 milliliters (ml) each were removed at each sub-sample location using a hand trowel and were combined into a labeled bag for each feature with the collection date, location and feature ID, and name of collector for future processing. Samples were stored in a dry location out of direct sunlight until delivery for processing.

The soil samples were processed by D. Christopher Rogers (TE796284-7). Soil samples were labelled with the numbers on their respective bags and prepared for examination by dissolving the clumps of soil in water and sieving the material through 300- and 150- µm pore size screens. The small size of these screens ensures that the eggs (aka cysts) from the shrimp species will be retained. The portion of each sample retained in the screens was dissolved in a brine solution to separate the organic material from the inorganic material. The organic fraction was then examined under a microscope. Counts were made by estimating the number of eggs per 100ml of soil, because not all samples had the same volume of soil collected originally.

Isolated eggs from each sample were cultured separately. Adult shrimps were reared from the recovered eggs using methods following Martin, Rogers & Olesen (2016). Hatched shrimps were fed a standard *Daphnia* food that includes fish food, fish oil, baker's yeast, and the alga *Selenastrum capricornutum*. The shrimp were reared to maturity. Adult *Branchinecta* reared from culture were killed in 90% ethyl alcohol and examined under a stereo dissection microscope. Identifications were made based upon comparisons with specimens in our collections, the original species descriptions, and professional experience.

Wet Season Surveys

Wet season fairy shrimp surveys were performed for the four seasonal pond features for the 2023-2024 rainfall season, as a follow up to the 2023 dry season surveys. The surveys were performed by GLA biologists Stephanie Cashin (TE-20280D-0) and Chris Waterston (ESPER-2380694). In accordance with the USFWS Survey Guidelines for the Listed Large Branchiopods (Survey Guidelines) dated November 13, 2017, site visits were conducted following measurable rainfall events to determine whether any of the features contained a minimum of three centimeters (cm) of ponding 24 hours after the rainfall event. Storms in late December 2023 and early January 2024 initiated hydrologic monitoring of the pools. Pool 3 began to sustain ponding after storms between January 19 - 23, 2024, with sampling in Pool 3 initiated beginning January 26, 2024. Pools 1 and 4 began to sustain ponding beginning February 2, 2024. After a multiple day storm in early February 2024, all pools reached the maximum extent of ponding. Pool 1 remained ponded until May 9, 2024. Pool 3 remained ponded until May 14, 2024. Pools 2 and 4 remained ponded until May 22, 2024.

All four pools were sampled to determine the presence of fairy shrimp using a dip net within representative portions of the depression bottom, edges, and vertical water column when there was adequate ponding. Fairy shrimp were detected in Pools 1, 2 and 3, but not in Pool 4. Specimens were collected from Pools 1, 2 and 3 and placed into vials, with unique depression information, containing 95% ethanol solution. The collected specimens were identified through microscopy and using the "Key to California Fairy Shrimps" found in Eriksen and Belk (1999, Revised 2016).

Crotch's Bumble Bee

GLA biologists conducted focused foraging surveys for CBB in 2024 and 2025. Focused surveys were conducted by GLA biologists Stephanie Cashin and Jason Fitzgibbon. Ms. Cashin holds a CDFW Scientific Collecting Permit and a Section 2081(a) permit (S-202690004-20273-001)

authorizing capture and release of CESA Candidate and/or TVPICP List bumble bees, including Crotch's bumble bee (CBB). Mr. Fitzgibbon possesses a CDFW Memorandum of Understanding (MOU) also authorizing capture and release of CESA Candidate and/or TVPICP List bumble bees, including CBB.

Surveys generally followed the methods described by CDFW (2023) in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*. The *Survey Considerations* state that the document should not be interpreted as a mandatory protocol for species surveys. However, the survey methods presented in the *Survey Considerations* document incorporate the methodology of established protocols (e.g. the USFWS rusty patched bumble bee protocol [USFWS 2019]) recommended in providing a framework of survey measures to be applied to surveys performed for CBB. The survey methods described by CDFW are not meant to be applied in the same manner across all properties, instead providing flexibility allowing for modifications to the number and type of surveys based on factors including the size of a Project site, the vegetation alliances and the phenology of the floral resources present within those alliances, and the patchiness of suitable habitat. The *Survey Considerations* state that survey efforts should include multiple survey visits, with the timing of the visits determined on a project-by-project basis based on seasonality and when activity or foraging will most likely occur. The timing of the surveys may vary depending on the location, elevation, seasonal rainfall, average ambient air temperatures, and local seasonal weather conditions. Surveys are preferably spaced at least two to four weeks apart throughout the Colony Active Period to take advantage of the different blooming periods of floral resources; however, for Project sites that lack perennial floral resources and are dominated by grasslands with early-blooming annual floral resources, the surveys may be spaced more tightly in the early portion of the Colony Active Period based upon the phenology of floral resources.

The Project site supports both annual and perennial floral resources with the potential for CBB to use for foraging, including flowering shrubs within approximately 3 acres of Riversidean sage scrub habitat and 74 acres of grasslands containing annual wildflowers that are distributed throughout the grasslands. The perennial (shrub) plant resources in bloom included white sage (*Salvia apiana*) and black sage (*Salvia mellifera*). The annual floral resources include Rancher's fireweed (*Amsinckia menziesii*), chick lupine (*Lupinus microcarpus*) and miniature lupine (*Lupinus bicolor*). GLA biologists conducted two survey visits in 2024 (May 22 and July 3). These visits coincided with the Colony Active Period, which is generally recognized as occurring from April through August, although CBB activity during that timeframe is dictated by blooming periods, which varies from season to season. However, because the annual floral resources were largely past their peak blooming stages as of the May 22, 2024, visit, GLA biologists conducted additional surveys in 2025 to include the early part of the Colony Active Period to focus on the floral resources within the grasslands, as well as to repeat surveys for the scrub vegetation. The 2025 survey visits were conducted on April 1, June 3 and July 7, 2025. Table 2-5 below summarizes the survey visits.

Table 2-5. Summary of Crotch's Bumble Bee Surveys

Survey Date	Biologists	Start/End Time	Start/End Temperature (°F)	Wind Speed (mph)	Cloud Cover (%)
5/22/24	JF, SC	0550/1100	57/69	1-2	80/50
7/3/24	SC	0600/0940	53/73	1-2	0/0
4/1/25	SC	1100/1445	56/60	9-13	50/50
6/3/25	IR	1000/1145	68/75	0-3	100
7/7/25	SC	1100/1300	79/90	3-3	0/0
SC = Stephanie Cashin; JF = Jason Fitzgibbon; IR = Ian Rhodes					

During each focused survey visit, each surveyor spent about three hours evaluating the highest quality patches of blooming plants within approximately 50 acres of vegetation supporting those plants. The surveyor initiated the survey by conducting one hour of visual survey effort within the highest quality three acres of blooming plants (as determined by the surveyor). With any detection of CBB, the surveyor recorded the location(s) using GPS and the individuals were photographed to document the identification of the bumble bees observed. If CBB were detected during the initial hour of survey, then the surveyor would move on to another three acres of blooming plants. If CBB were not detected during the first hour of searching, then for the second hour, the surveyor could either choose to resurvey the same flowering area (if any *Bombus* species are detected prior) or the surveyor could choose to conduct a second hour of searching within another three acres of blooming plants. If CBB were not detected within the first two hours, then a second sampling phase was implemented, in which the surveyor evaluated the remaining vegetation within the 50-acre survey area, scanning suitable flowering areas for bumble bee activity and focusing on those areas. Minimal time was spent in less quality habitat.

The results of the CBB surveys are provided below in Section 4.5.

2.3 Jurisdictional Waters

The Project site was delineated to identify the limits of jurisdictional waters, including waters of the U.S. (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and waters of the State (including riparian vegetation) subject to the jurisdiction of the Regional Board and CDFW. Prior to beginning the field delineation, a color aerial photograph, topographic base map, the previously cited USGS topographic map, and a soils map were examined to determine the potential locations of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity, aquatic resources, and/or wetland indicators. Where applicable, reference was made to the National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (OHWM Manual, David et al. 2025) to identify the width of Corps and Regional Board jurisdiction. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual (Wetland Manual, Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement, U.S. Army Corps of Engineers 2008). Reference was also made to the State Wetland Definition and Procedures for Discharges of

Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures, State Water Resources Control Board 2021) to identify suspected State wetlands. Riparian habitat, where present, was mapped within waters of the State.

Suspected watercourses potentially subject to CDFW jurisdiction under Section 1600 of the Fish and Game Code were evaluated. Such water courses were analyzed for identifiable physical and biological indicators of flow, including evidence of water that sustains riparian vegetation.

While in the field, the limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The Project site was initially delineated by GLA regulatory specialists Chris Waterston and Lesley Lokovic-Gamber on February 9, 2021, followed by additional visits on April 20 and July 29, 2022, to cover expanded portions of the Project site. The results of the jurisdictional delineation are described below in Section 4.0 and in Appendix F (Jurisdictional Delineation Report).

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

The MSHCP defines riparian/riverine areas as "lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year."

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 wetland indictors of hydrology and/or vegetation during the drier portion of the growing season."

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.

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support listed fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to

become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The site was evaluated on multiple occasions during the rainfall season, including in 2020, 2021 and 2022. GLA biologists Jillian Stephens and David Moskovitz initially evaluated the site in April 2020, with follow-up visits conducted on February 9, 2021, and April 20, 2022. Fairy shrimp survey methods are discussed above.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal laws and regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; special-status species which are not listed as threatened or endangered by the state or federal governments; and special-status vegetation communities.

3.1 Endangered Species Acts

3.1.1 California Endangered Species Act

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

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

lawful activities. Section 1913 of the California Fish and Game Code provides that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." As of the date of this Biological Technical Report, the USFWS is considering rescinding the regulatory definition of "harm." (See 90 Fed. Reg. 16102 (April 17, 2025).) If rescinded, the action would not affect the application of the MSHCP to the Project for those federal listed Covered Species for which the MSHCP has project-specific requirements. These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.1.4 Take Authorizations Pursuant to the MSHCP

The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the federal and state wildlife agencies and participating entities. The MSHCP is a comprehensive habitat conservation-planning program for western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species pursuant to Section 10(a) of the FESA.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved". These include Narrow Endemic Plant Species, as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species identified by the Criteria Area Species Survey Areas (CASSA); animal species as identified by survey area; and plant and animal species associated with riparian/riverine areas and vernal pool habitats (*Volume I, Section 6.1.2* of the MSHCP document).

For projects that have a federal nexus such as through federal Clean Water Act Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project, resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA requires consideration of non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B in the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants that are regionally important, such as

locally rare species, disjunct populations of more common plants, or plants with a CRPR of 3 or 4.

3.2.2 Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FC Federal Candidate Species (former C1 species)

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (FP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. State Species of Special Concern (SSC) are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- FP State Fully Protected

- SSC State Species of Special Concern

CNDDB Global/State Rankings

The CNDDB provides global and state rankings for species and communities based on a system developed by The Nature Conservancy to measure rarity of a species. The ranking provides a shorthand formula about the rarity of a species/community and is based on the best information available from multiple sources, including state and federal listings, and other groups that recognize species as sensitive (e.g., Bureau of Land Management, Audubon Society, etc.). State and global rankings are used to prioritize conservation and protection efforts so that the rarest species/communities receive immediate attention. In both cases, the lower ranking (i.e., G1 or S1) indicates extreme rarity. Rare species are given a ranking from 1 to 3. Species with a ranking of 4 or 5 is considered to be common. If the exact global/state ranking is undetermined, a range is generally provided. For example, a global ranking of "G1G3" indicates that a species/community global rarity is between G1 and G3. If the animal being considered is a subspecies of a broader species, a "T" ranking is attached to the global ranking. The following are descriptions of global and state rankings:

Global Rankings

- G1 – Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or because of some factor(s) making it especially vulnerable to extinction.
- G2 – Imperiled globally because of rarity (6-20 occurrences), or because of some other factor(s) making it very vulnerable to extinction throughout its range.
- G3 – Either very rare and local throughout its range (21 to 100 occurrences) or found locally (even abundantly at some of its locations) in a restricted range (e.g., a physiographic region), or because of some other factor(s) making it vulnerable to extinction throughout its range.
- G4 – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 – Common, widespread and abundant.

State Rankings

- S1 – Extremely rare; typically 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.
- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

California Native Plant Society

CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS's Ninth Edition of the California Native Plant Society's *Inventory of Rare and Endangered Plants of California* categorizes plants of interest into six California Rare Plant Ranks (CRPR) based on their geographic distribution and potential threats to existing populations. The CNPS Inventory is used by CDFW as the candidate species list for plants that may be listed as state Threatened and Endangered by CDFW. The six categories of rarity that are summarized in Table 3-1

Table 3-1. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in federal regulations at 33 CFR Part 328.3(a) as:

(1) Waters which are:

(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) The territorial seas; or

(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraphs (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

(i) Waters identified in paragraph (a)(1) of this section; or

(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

Federal regulations at 33 CFR Part 328.3(b) exclude the following from being "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) above:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(c)(4) as:

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

"Adjacent" wetlands are defined by 33 CFR 328.3(c)(2) as having a "continuous surface connection" to other waters of the United States.

Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(c)(1) as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be hydrophytic in nature as published in the most current national wetland plant list;

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[2] and waters of the state. Waters of the United States are defined above in Section II.A and waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

State Wetland Definition

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

The following wetlands are waters of the state:

1. Natural wetlands;

[2] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

[3] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. [For Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California].

2. Wetlands created by modification of a surface water of the state;[4] and
3. Artificial wetlands[5] that meet any of the following criteria:

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters,
        v. Agricultural crop irrigation or stock watering,
        vi. Fire suppression,
        vii. Industrial processing or cooling,
        viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
        ix. Log storage,
        x. Treatment, storage, or distribution of recycled water, or
        xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
        xii. Fields flooded for rice growing.[6]

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

[5] Artificial wetlands are wetlands that result from human activity.

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

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

3.3.3 California Department of Fish and Wildlife

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

California regulations define a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations [CCR] Title 14 Section 1.72). The definition of a "lake" includes "natural lakes or man-made reservoirs" (CCR Title 14 Section 1.56). The Fish and Game Code defines wildlife to include "all wild animals, birds, plants, fish, amphibians, reptiles, and related ecological communities, including the habitat upon which they depend for continued viability" (FGC Division 0.5, Chapter 1, Section 89.5). Furthermore, FGC Section 1600 et seq. does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a jurisdictional delineation for Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The overall Project site varies in topography from slightly hilly to flat, sloping from southwest to northeast. The onsite portion of the Project site (industrial component) consists of several small hills and ridges sloping from the southwest down to the existing dirt road of Baker Street, with the site being flatter on the northern end near the Baker Street/Pierce Street intersection. Northeast of Baker Street, the landscape is flat with a very gradual change in elevation to the northeast towards Alberhill Creek/Collier Marsh. Elevations at the Project site range from approximately 1,400 feet above mean sea level (AMSL) at the southwestern boundary of the development footprint to 1,250 feet AMSL at the northeastern limits of the proposed RCA Conserved Lands.

Soils within the onsite portion of the Project site consist mainly Lodo Rocky Loam and Willows Silty Clay (saline-alkali). The Willows soils occur in the lower portions of site, with the rocky loam soil occurring in the higher elevation areas. The Willows soils extend into the site from the adjacent Collier Marsh area. These alkaline soils are strongly associated with the plant species that occur in the vernal pools immediately northeast of Baker Street (see discussion below in Sections 4.2.1, 4.2.2, and 4.2.9). The offsite (undeveloped) portions of the Project site predominantly consist of fine sandy loam soils. The proposed RCA Conserved Lands consist of Willows silty clay soils as well as the fine sandy loam soils.

4.2 Vegetation Mapping

GLA mapped nine distinct vegetation/land use types for the Project site, including Akali Grassland, Akali Playa, Disturbed/Developed, Open Water, Riversidean Sage Scrub, Semi-Natural Herbaceous Grassland, Disturbed Semi-Natural Herbaceous Grassland, Southern Willow Scrub and Vernal Pool. Table 4-1 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 5. Photographs depicting the Project site are shown in Exhibit 16.

Table 4-1. Summary of Vegetation/Land Use Types for the Project Site

Vegetation/Land Use Type	Inside Criteria Cells (acres)	Outside Criteria Cells (acres)	Total (acres)
Alkali Grassland	3.59	0	**3.59**
Alkali Playa	0.73	0	**0.73**
Disturbed/Developed	20.08	10.62	**30.70**
Open Water	0.09	0	**0.09**
Riversidean Sage Scrub	2.49	0.52	**3.01**
Semi-Natural Herbaceous Grassland	38.88	30.84	**69.72**
Disturbed Semi-Natural Herbaceous Grassland	20.72	4.59	**25.31**
Southern Willow Riparian Scrub	1.14	0	**1.14**
Vernal Pool	1.72	0	**1.72**
Total	**89.44**	**46.57**	**136.01**

4.2.1 Alkali Grassland

Alkali grassland covers 3.59 acres of the Project site on the northeast side of Baker Street, primarily surrounding and/or associated with the vernal pools. Soil within these areas is mapped as Willows silty clay, which consists of well-drained, moderately slow permeable soils. Alkali grassland within the Project site includes alkali adapted plant species as well as rare plants.

Dominant species within the meadow and marsh vegetation community include alkali weed (*Cressa truxillensis*), silverscale saltbush (*Atriplex argentea*), alkali mallow (*Malvella leprosa*), Harding grass (*Phalaris aquatica*), neckweed (*Veronica peregrina*), and foxtail barley (*Hordeum murinum*). This vegetation category also supports a variety of special-status plants including

Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), San Jacinto valley crownscale (*Atriplex coronata* var. *notatior*), and vernal barley (*Hordeum intercedens*).

4.2.2 Alkali Playa

The Project site contains 0.73 acre of alkali playa, all of which occurs within the RCA Conserved Land. Alkali playas are also dry lakes or edges of dry lakes that typically undergo periods of temporary inundation during the wet season and have high concentrations of alkali salts (Holland 1986). As such, alkali playas are dominated by plant species adapted to a salty substrate.

The disturbed alkali playa within the Project site is located within the Alberhill Creek floodplain. Dominant species include alkali weed, alkali heath (*Frankenia salina*), salt grass, silverscale saltbush, and bush seepweed (*Suaeda nigra*). The alkali playa vegetation community within the Project site supports several rare plant species including Coulter's goldfields, San Jacinto Valley crownscale, and vernal barley.

4.2.3 Disturbed/Developed

The Project site contains 30.70 acres of disturbed/developed land consisting of paved roads, unpaved access roads, and former residential lots. The disturbed/developed areas include Baker Street, Pierce Street, Terra Cotta Road, Nichols Road and Collier Avenue. The unpaved disturbed/developed portions of the site remain generally unvegetated, although ruderal species occur intermittently within and along the edges of these areas. Dominant species include coastal heron's bill (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), and summer mustard (*Hirschfeldia incana*).

4.2.4 Open Water

The Project site contains open water, which covers approximately 0.09 acre. This land use type consists of a perennial portion of Alberhill Creek which flows through the northern limit of RCA conserved lands.

4.2.5 Riversidean Sage Scrub

A 3.01-acre patch of California Buckwheat Scrub occurs in the southwestern portion of the Project site. This intact vegetation community occurs on a steep slope, contains clay soils, and exhibits environmental characteristics typical of sage scrub communities such as spaced apart shrubs providing an open canopy to allow for interspersed growth of grasses and forbs.

The Riversidean Sage Scrub vegetation community is dominated by shrub species including brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and California buckwheat (*Eriogonum fasciculatum*). The understory consists of lower growing shrubs and perennial and annual herbs such as common sandaster (*Corethrogyne filaginifolia*), clustered tarweed (*Deinandra fasciculata*), blue dicks (*Dichelostemma capitatum*), wild cucumber (*Marah macrocarpa*), California plantain (*Plantago erecta*), and splendid

mariposa (*Calochortus splendens*). Non-native grasses also occur in the understory including common Mediterranean grass (*Schismus barbatus*) and various brome species (*Bromus* spp.).

4.2.6 Semi-Natural Herbaceous Grassland

The majority of the Project site consists of semi-natural herbaceous grassland. This vegetation community comprises 69.72 acres and occurs throughout the entirety of the site, in both the RCA Conserved Lands and the impact areas. Although these areas currently remain largely undisturbed, the overall plant community exhibits significant historic disturbance that removed the mosaic of native plants that would have otherwise been present and replaced it with exotic species. As such, due to the current predominance of non-native species, the term "semi-natural" is used to describe this herbaceous grassland.

In early spring, before annual grasses emerge, this vegetation community is dominated with common fiddleneck (*Amsinckia intermedia*), London rocket, cheeseweed, and coastal heron's bill. Also present in early spring are sporadically occurring patches of native wildflowers including lupine (*Lupinus bicolor*), chick lupine (*Lupinus microcarpus*), goldfields (*Lasthenia californica*), and red maids (*Calandrinia menziesii*). Then, in late spring and early summer, this vegetation community is almost entirely dominated with non-native grass species including red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), foxtail barley, and slim oat (*Avena barbata*).

4.2.7 Disturbed Semi-Natural Herbaceous Grassland

The Project site contains 25.31 acres of land mapped as disturbed semi-natural herbaceous grassland. This vegetation community occurs in the central portion of the site, bordering Baker Street on both sites, and also occurs in both the RCA Conserved Lands and the impact areas. It is nearly identical to the vegetation community described above (semi-natural herbaceous grassland); however, these areas currently experience more disturbance in the form of routine mowing and disking. As such, the disturbed semi-natural herbaceous grassland excludes pockets of native wildflowers and any semblance of a historic native plant community.

The disturbed semi-natural herbaceous grassland is dominated with a variety of weedy, annual species including summer mustard, stinknet (*Oncosiphon piluliferum*), prickly lettuce (*Lactuca serriola*), London rocket, cheeseweed, coastal heron's bill, red brome, ripgut brome, foxtail barley, and slim oat.

4.2.8 Southern Willow Riparian Scrub

The Project site contains 1.14 acres of southern willow riparian scrub as part of RCA conserved land, within and adjacent to Alberhill Creek. Southern willow riparian scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*). This vegetation community contains an assortment of young and mature trees, with willows ranging from 15- to 50-feet tall, and is dominated by black willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*). Other species sporadically observed in association with this plant community

include mule fat (*Baccharis salicifolia*), tamarisk (*Tamarix ramosissima*), western ragweed (*Ambrosia psilostachya*), big saltbush (*Atriplex lentiformis*), saltgrass (*Distichlis spicata*), and yerba mansa (*Anemopsis californica*).

4.2.9 Vernal Pools

Three vernal pools occur within the Project site on the northeast side of Baker Street, accounting for 1.72 acres [Exhibit 10]. Vernal pools are ephemeral wetlands that form in shallow depressions underlain by a substrate near the surface that restricts the downward percolation of water. Depressions in the landscape fill with rainwater and runoff from adjacent areas during the winter and may remain inundated until spring or early summer, sometimes drying more than once during the wet season. Smaller pools can fill and dry, and larger pools can hold water longer and may, in the deeper portions, support species that are more representative of freshwater marshes. Vernal pools are well-known for their high level of endemism (Stone, 1989) and abundance of rare, threatened, or endangered species (Sawyer and Keeler-Wolf, 1995). Vernal pools are dominated by native annual plants, with low to moderate levels of perennial herbaceous cover (MSHCP 2023).

Within the Project site, the northernmost seasonal pool (Vernal Pool #3) is partially supported by runoff from an adjacent ephemeral drainage, while the remaining two pools (Vernal Pool #1 and 2) are depressional features that inundate from direct rainfall and runoff from the immediate local watershed. Dominant plant species within the pools include alkali plagiobothrys (*Plagiobothrys leptocladus*), alkali weed, alkali mallow, common toad rush (*Juncus bufonius*), and Harding grass. This vegetation category also supports a variety of special-status plants within the Project site including Coulter's goldfields, small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), San Jacinto Valley crownscale, and vernal barley.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following nine special-status vegetation communities for the Lake Elsinore and eight surrounding quadrangle maps: Canyon Live Oak Ravine Forest, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Interior, Basalt Flow Vernal Pool, Southern Riparian Forest, Southern Sycamore Alder Riparian Woodland, Southern Willow Scrub, Valley Needlegrass Grassland. The Project site contains one special-status vegetation community identified by the CNDDB, Southern Willow Scrub, and one additional special-status community, Vernal Pools. The Southern Willow Scrub occurs in Alberhill Creek, which coincides with the proposed RCA Conserved Lands and is crossed by the existing Nichols Road alignment. The Vernal Pools at the Project site are not basalt flow pools; nevertheless, they are considered sensitive natural communities.

4.4 Special-Status Plants

The following special-status plants were detected at the Project site by GLA during focused plant surveys: San Diego ambrosia (*Ambrosia pumila*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), vernal barley (*Hordeum intercedens*) and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*).

The little mousetail (*Myosurus minimis* ssp. *apus*) has been documented in the public record[7] at (or in the vicinity of) the Project site in the past; however, this species was not detected by GLA during focused plant surveys.

Table 4-2 provides a list of special-status plants evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

Table 4-2. Special-Status Plants Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
Alkali marsh aster *Almutaster pauciflorus*	Federal: None State: None CRPR: Rank 2B.2	Meadows and seeps	Not detected.
Bottle liverwort *Sphaerocarpos drewei*	Federal: None State: None CRPR: Rank 1B.1	Openings in chaparral and coastal scrub.	Not detected.
California ayenia *Ayenia compacta*	Federal: None State: None CRPR: Rank 2B.3	Rocky soils in Mojavean desert scrub and Sonoran desert scrub.	Does not occur.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP(b)	Vernal pools	Not detected.
California screw moss *Tortula californica*	Federal: None State: None CRPR: Rank 1B.2	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur.
Campbell's liverwort *Geothallus tuberosus*	Federal: None State: None CRPR: Rank 1B.1	Occurs on soil in coastal scrub (mesic) and vernal pools.	Does not occur.
Catalina mariposa lily *Calochortus catalinae*	Federal: None State: None CRPR: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland.	Not detected.
Chaparral nolina *Nolina cismontana*	Federal: None State: None CRPR: Rank 1B.2	Chaparral, coastal sage scrub. Occurring on sandstone or gabbro substrates.	Not detected.
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CRPR: Rank 1B.1	Sandy soils in chaparral, coastal sage scrub.	Not detected.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CRPR: Rank 1B.1 MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Present.

[7] University of California, Riverside Herbarium Record. Catalog #: UCR0036250
Occurrence ID: UCR-BPS-280981

Species Name	Status	Habitat Requirements	Occurrence
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(d)	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not detected.
Hall's monardella *Monardella macrantha* ssp. *hallii*	Federal: None State: None CRPR: Rank 1B.3 MSHCP	Occurs on dry slopes and ridges within openings in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland.	Does not occur.
Hammitt's clay-cress *Sibaropsis hammittii*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(b)	Clay soils in openings of chaparral, and in valley and foothill grasslands.	Not detected.
Heart-leaved pitcher sage *Lepechinia cardiophylla*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur.
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CRPR: Rank 1B.2	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Not detected.
Intermediate monardella *Monardella hypoleuca* ssp. *intermedia*	Federal: None State: None CRPR: Rank 1B.3 MSHCP	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur.
La Purisima viguiera *Viguiera purisimae*	Federal: None State: None CRPR: Rank 2B.3	Coastal bluff scrub and chaparral.	Does not occur.
Lemon lily *Lilium parryi*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(f)	Mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest.	Does not occur.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CRPR: Rank 3.1 MSHCP(d)	Valley and foothill grassland, vernal pools (alkaline soils).	Not detected during GLA's surveys, but public record of past onsite detection.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CRPR: Rank 1B.2 MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Not detected.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Not detected.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CRPR: Rank 1B.1	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur.
Munz's onion *Allium munzii*	Federal: FE State: ST CRPR: Rank 1B.1 MSHCP(b)	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands	Not detected.

Species Name	Status	Habitat Requirements	Occurrence
Palmer's grapplinghook *Harpagonella palmeri*	Federal: None State: None CRPR: Rank 4.2 MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Not detected.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CRPR: Rank 4.2	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Not detected.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CRPR: Rank 1B.1 MSHCP(d)	Chenopod scrub, playas, vernal pools.	Not detected.
Parish's meadowfoam *Limnanthes alba* ssp. *parishii*	Federal: None State: SE CRPR: Rank 1B.2 MSHCP	Vernally mesic soils in lower montane coniferous forests, meadows and seeps, and vernal pools.	Does not occur.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CRPR: Rank 1B.1 MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Not detected.
Parry's tetracoccus *Tetracoccus dioicus*	Federal: None State: None CRPR: Rank 1B.2	Chaparral and coastal sage scrub.	Not detected.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CRPR: Rank 4.2 MSHCP	Sandy or granitic soils in chaparral and coastal scrub.	Not detected.
Prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(d)	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Not detected.
Rainbow manzanita *Arctostaphylos rainbowensis*	Federal: None State: None CRPR: Rank 1B.1 MSHCP	Chaparral	Does not occur.
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CRPR: Rank 4.3	Chaparral, coastal sage scrub	Not detected.
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CRPR: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CRPR: Rank 1B.1 MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Present.
San Diego button-celery *Eryngium aristulatum* var. *parishii*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP	Mesic soils in vernal pools, valley and foothill grasslands, coastal sage scrub.	Not detected.

Species Name	Status	Habitat Requirements	Occurrence
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CRPR: Rank 1B.1 MSHCP(d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Present.
San Miguel savory *Clinopodium chandleri*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(b)	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	Not detected.
Santa Lucia dwarf rush *Juncus luciensis*	Federal: None State: None CRPR: Rank 1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	Does not occur.
Santa Rosa Basalt brodiaea *Brodiaea santarosae*	Federal: None State: None CRPR: Rank 1B.2	Basaltic soils in valley and foothill grassland.	Does not occur.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP(b)	Sandy soils in alluvial scrub, chaparral, and cismontane woodland.	Not detected.
Small-flowered microseris *Microseris douglasii* ssp. *platycarpha*	Federal: None State: None CRPR: Rank 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools.	Present.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CRPR: Rank 1B.1 MSHCP(d)	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Not detected.
Southern mountains skullcap *Scutellaria bolanderi* ssp. *austromontana*	Federal: None State: None CRPR: Rank 1B.2	Mesic soils in chaparral, cismontane woodland, lower montane coniferous forest.	Does not occur.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CRPR: Rank 1B.1 MSHCP(b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not detected.
Sticky dudleya *Dudleya viscida*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(f)	Coastal bluff scrub, chaparral, coastal sage scrub. Occurring on rocky soils.	Does not occur.
Summer holly *Comarostaphylis diversifolia* ssp. *diversifolia*	Federal: None State: None CRPR: Rank 1B.2	Chaparral.	Does not occur.
Tecate cypress *Hesperocyparis forbesii*	Federal: None State: None CRPR: Rank 1B.1	Closed-cone coniferous forest, chaparral.	Does not occur.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CRPR: Rank 1B.1 MSHCP(d)	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Not detected.

Species Name	Status	Habitat Requirements	Occurrence
Vernal barley *Hordeum intercedens*	Federal: None State: None CRPR: Rank 3.2 MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Present.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CRPR: Rank 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Not detected.
Woven-spored lichen *Texosporium sancti-jacobi*	Federal: None State: None CRPR: Rank 3	On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Chaparral (openings).	Does not occur.
Yucaipa onion *Allium marvinii*	Federal: None State: None CRPR: Rank 1B.2 MSHCP(b)	Chaparral (clay, openings).	Does not occur.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Not detected – The site contains suitable habitat for the species (or has the potential to), but the species was not detected during focused surveys.
- Present – The species was detected onsite incidentally or through focused surveys.

4.4.1 Special-Status Plants Detected at the Project Site

The following special-status plant species were detected at the Project site during focused plant surveys.

San Diego Ambrosia (*Ambrosia pumila*)

San Diego ambrosia was detected in several locations within the Project site, and except for a small amount detected on the edge of Vernal Pool 3, all of the mapped ambrosia is within the development footprint. The majority of plants within the Project site were at two locations at the southern end of the site. Additional locations with fewer numbers of plants included one location in the central portion of the site, three locations adjacent to Pierce Street, and one location adjacent to Nichols Road [Exhibit 7 – Rare Plants Map]. GLA biologists estimated 9,000 plants over 0.44 acre of habitat with long-term conservation value for the species. These locations of San Diego ambrosia within the Project site have been previously documented in the public record by other botanists, including by Steve Boyd (1997) and A.C. Sanders (2014 and 2015). Other locations within the Project site (RCA Conserved Lands) were documented by F.M. Roberts (1997), D.E. Bramlet (1997), and Mitch Provance (2005).

San Diego ambrosia is a member of the sunflower family (ASTERACEAE) and is designated as a federal endangered species as well as a CRPR 1B.1 species. This perennial herb is known to occur in chaparral, coastal sage scrub, valley and foothill grasslands, and vernal pools from 20 to 415 meters (66 to 1,360 feet) AMSL. San Diego ambrosia is 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 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 extant Riverside County localities are found on Garretson gravelly fine sandy loams when in association with floodplains, and on Las Posas loam in close proximity to silty, alkaline soils of the Willows series (Knecht 1971) at Skunk Hollow. Preliminary testing of agricultural suitability of soils within a San Diego ambrosia population in San Diego County revealed mostly sandy loam textured soils, which were moderately acidic (pH ranging from 4.48 to 5.77) and low in salinity (DUDEK 1999). Control soil samples adjacent to this population where no San Diego ambrosia were present were more acidic ranging in pH from 3.97 to 4.63. Boling (1988) reported San Diego ambrosia from slopes from 0-9 percent slope on sandy or clay loams. At Mission Trails regional park in San Diego, patches of San Diego ambrosia occurred upon slope angles ranging from 0 to 18 percent with the vast majority of plants occurring at slope angles of less than 5 percent (DUDEK 1999).

Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*)

Coulter's goldfields was detected in several locations within the Project site, including in association with the three vernal pools and within the proposed RCA Conserved Lands near

Alberhill Creek. The majority of Coulter's goldfields were associated with Vernal Pool 1 and 3 [Exhibit 7 – Rare Plants Map]. GLA biologists estimated 9,000 plants over 2.71 acres of total habitat with long-term conservation value for the species, of which approximately 0.50 acre is within the development footprint and the remainder is in the RCA Conserved Lands. The locations of Coulter's goldfields within the Project site have been previously documented in the public record by other botanists, including by A.C. Sanders (2008), D.E. Bramlet, R.L. Allen and F.M. Roberts (2011), and Mitch Provance (2005 and 2017).

Coulter's goldfields is a member of the sunflower family (ASTERACEAE) and is designated as a CRPR 1B.1 species but is not a federal or state listed species. This annual herb is known to occur in marshes and swamps, playas, and vernal pools below 1,220 meters (4,000 feet) AMSL. Coulter's goldfields is known to occur from San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange and San Diego counties as well as some of the Channel Islands in southern California. This species is known to bloom from February through June.

Coulter's goldfields is associated with low-lying alkali habitats along the coast and in inland valleys (Ornduff 1966). The majority of the populations are associated with coastal salt marsh. In Riverside County, Coulter's goldfields occurs primarily in highly alkaline, silty-clay soils in the Traver-Domino-Willows soil association; the majority of Riverside County populations are associated with the Willows soil series. Coulter's goldfields occur primarily in the alkali vernal plains community (Ferren and Fiedler 1993; Bramlet 1993b). These are floodplains dominated by alkali scrub, alkali playas, vernal pools, and alkali grasslands (Bramlet 1993, CNDDB 2000). These habitats form mosaics that are largely dependent on salinity and micro-elevational differences. Coulter's goldfields occurs in wetter areas. California goldfields (*L. californica*) occurs sympatrically both at Salt Creek and along the San Jacinto River. California goldfields is the dominant of the pair at Salt Creek. The reverse is true at the San Jacinto Wildlife Area and along the San Jacinto River (Dave Bramlet 1993; F. Roberts, botanist, pers. comm., 2000).

In Riverside County, Coulter's goldfields is associated with seablite (*Suaeda moquinii*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), sand spurry (*Spergularia marina*), California goldfields (*Lasthenia californica*), Mojave silver scale (*Atriplex argentea*), bracted saltbush (*A. serenana*), five-hook bassia (*Bassia hyssopifolia*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), alkali heath (*Frankenia grandifolia*), and toad rush (*Juncus bufonius*) (Bramlet 1993a; Bramlet 1993b; CNDDB 2000). Coulter's goldfields are frequently associated with other rare species, including San Jacinto Valley crownscale, Davidson's saltscale, vernal barley, smooth tarplant, and thread-leaved brodiaea (Bramlet 1993b).

San Jacinto Valley Crownscale (*Atriplex coronata* var. *notatior*)

San Jacinto Valley crownscale was detected at one location within the Project site, specifically around Vernal Pool 1 [Exhibit 7 – Rare Plants Map]. GLA biologists estimated 1,500 plants at this location, with the majority within the RCA Conserved Lands and a smaller proportion within the Project's development footprint. However, because this location is not within the CAPSSA for San Jacinto Valley crownscale, there is no requirement to identify habitat with long-term

conservation value, and no requirement to avoid the locale or otherwise mitigate any impacts to the crownscale. The locations of crownscale within the Project site have been previously documented in the public record by other botanists, including by A.C. Sanders (2008 and 2013), and D.E. Bramlet, R.L. Allen and F.M. Roberts (2011).

San Jacinto valley crownscale is a member of the amaranth family (AMARANTHACEAE) and is designated as a federally endangered species as well as a CRPR 1B.1 species. This annual herb is known to occur in playas, valley and foothill grasslands and alkaline vernal pools from 139 to 500 meters (456 to 1,640 feet) AMSL. San Jacinto valley crownscale is known to occur from Kern and Riverside counties and is known to bloom from April through August.

San Jacinto Valley crownscale occurs primarily in floodplains (seasonal wetlands) dominated by alkali scrub, alkali playas, vernal pools, and, to a lesser extent, alkali grasslands (Bramlet 1993; Roberts 1993). San Jacinto Valley crownscale is restricted to highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association; the majority (approximately 80 percent) of the populations being associated with the Willows soil series (Roberts and McMillan 1997; Bramlet 1993).

Vernal Barley (*Hordeum intercedens*)

Vernal barley was detected in Vernal Pool 3 along with the Coulter's goldfields and was also detected within the RCA Conserved Lands near Alberhill Creek [Exhibit 7 – Rare Plants Map]. The population of vernal barley was estimated to be at least a few thousand individuals, with the majority near the creek and a smaller amount within the vernal pool 3. A small number of plants (less than 10) were detected in Vernal Pool 3 within the development footprint, otherwise all of the vernal barley was in the RCA Conserved Lands. Vernal barley is not a NEPSSA or CAPSSA species and is a Covered Species without any species-specific avoidance or mitigation requirements. The locations of vernal barley within the Project site have been previously documented in the public record by other botanists, including A.C. Sanders (2008) and D.E. Bramlet, R.L. Allen and F.M. Roberts (2011).

Vernal barley is a member of the grass family (POACEAE) that is designated as a CRPR 3.2 species but is not a federal or state listed species. This annual herb is known to occur in coastal dunes, coastal scrub and saline flats and depressions within valley and foothill grasslands and vernal pools from 5 to 1,000 meters (16 to 3,280 feet) AMSL from Fresno County south to Baja California. Vernal barley is known to bloom from March through June.

Vernal barley is associated with mesic grasslands, vernal pools, and large saline flats or depressions (Braum and Bailey 1987; CNPS 2001). In Riverside County, vernal barley is found in the Domino, Willows, and Traver soils series and is associated with alkali flats and flood plains within the alkali vernal plains community (Ferren and Fiedler 1993). Within this community vernal barley is primarily associated with alkali annual grasslands and vernal pools and to a lesser extent alkali scrub and alkali playa (F. Roberts, botanist, in litt., September 1999). Associated species include: seablite (*Suaeda moquinii*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), sand spurry (*Spergularia marina*), California goldfields (*Lasthenia californica*), Mojave silver scale (*Atriplex argentea*), San Jacinto Valley

crownscale, bracted saltbush (*A. serenana*), five-hook bassia (*Bassia hyssopifolia*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), little mousetail, alkali heath (*Frankenia grandifolia*), smooth tarplant, and toad rush (*Juncus bufonius*) (Bramlet 1993; F. Roberts, in litt., 1999). The distribution of vernal barley in San Diego and Orange County suggests that this species may occur in mesic grasslands, and hard and basaltic vernal pool habitats within Riverside County.

Small-Flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)

Five individuals of small-flowered microseris were detected at the edge of Vernal Pool 2 within the RCA Conserved Lands. Small-flowered microseris is not a NEPSSA or CAPSSA species and is a Covered Species without any species-specific avoidance or mitigation requirements. The microseris has been previously documented in the public record by other botanists, including by A.C. Sanders (2014).

Small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*) is a member of the sunflower family (ASTERACEAE) that is designated as a CRPR 4.2 species but is not a state or federal listed species. This annual herb is known to occur in cismontane woodland, coastal scrub, valley and foothill grasslands and vernal pools from 15 to 1,070 meters (50 to 3,510 feet) AMSL. Small-flowered microseris is known to occur from Los Angeles, Orange, Riverside and San Diego Counties as well as a number of Channel Islands and Baja California. This species is known to bloom from March through May.

Small-flowered microseris is found in clay soils and occurs on plains, hillsides, and foothill slopes in association with native grasslands or vernal pools (Munz 1974; Chambers 1955; Chambers 1993; Reiser 2001).

4.4.2 Special-Status Plants Not Detected During Focused Surveys, but with an Existing Public Record

Little Mousetail (*Myosurus minimus* ssp. *apus*)

Little mousetail was not detected on the Project site during focused surveys. However, there is a public record through the University of California, Riverside Herbarium[8] from 2017 describing mousetail along with other vernal pool indicator plants in a pool adjacent to Baker Street. The public record places the location within the Project site. The same botanist also noted Coulter's goldfields with a separate record at the same location. As GLA noted Coulter's goldfields in Vernal Pool 3, which is near the location shown for the mousetail record, then it is possible that mousetail is present in that pool but was not detected by GLA during focused surveys. A pool was not observed at the location noted by the mousetail record.

In southern California, little mousetail occurs in association with vernal pools and within the alkali vernal pools and alkali annual grassland components of alkali vernal plains (Munz 1974;

[8] CCH2 Portal. 2023. https://cch2.org/portal/index.php. Accessed on 12/11/23. University of California, Riverside Herbarium Record. Catalog #: UCR0036250. Occurrence ID: UCR-BPS-280981

Bramlet 1993; CNPS 2001; Ferren and Fielder 1993). Little mousetail is found in areas that have semi-regular inundation. On the Santa Rosa Plateau, little mousetail is associated with California Orcutt's grass, San Diego button celery, and Orcutt's brodiaea (Thorne and Lathrop 1985; CNDDB 2000). At Salt Creek little mousetail is associated with woolly marbles (*Psilocarphus brevisimmus*), alkali weed (*Cressa truxillensis*), wire-stem popcorn flower (*Plagiobothrys leptocladus*), California goldfields (*Lasthenia californica*), hairgrass (*Deschamspia danthoides*), Mojave silver scale (*Atriplex argentea*), bracted saltbush (*A. serenana*), sharp-tooth peppergrass (*Lepidium dictyotum*), dwarf peppergrass (*Lepidium latipes*), alkali plantain (*Plantago elongata*), and toad rush (*Juncus bufonius*) (Bramlet 1993a; Bramlet 1993b). At Salt Creek, little mousetail is associated with other rare species, including San Jacinto Valley crownscale, Davidson's saltscale, Parish's brittlescale, vernal barley, smooth tarplant, and thread-leaved brodiaea (Bramlet 1993b; Recon 1995).

4.5 Special-Status Animals

The following special-status animals were detected at the Project site during general and focused surveys: least Bell's vireo (*Vireo bellii pusillus*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), Cooper's hawk (*Accipiter cooperi*) and California horned lark (*Eremophila alpestris actia*). Least Bell's vireo, yellow-breasted chat and yellow warbler were detected in Alberhill Creek near the existing Nichols Road crossing. Cooper's hawk and California horned lark were both observed foraging within the Project site. Additional animal species having a potential to occur are referenced below in the table.

Table 4-3 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

Table 4-3. Special-Status Animals Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Crotch's bumble bee *Bombus crotchii*	Federal: None State: CE (candidate endangered)	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Present.
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines and are known to disperse through disturbed habitats to reach suitable nectar plants.	Not expected to occur.

Species Name	Status	Habitat Requirements	Occurrence
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Absent.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None	Seasonal vernal pools	Absent.
Santa Rosa Plateau fairy shrimp *Linderiella santarosae*	Federal: None State: None MSHCP(a)	Resides in Southern Basalt Flow vernal pools ranging from 25 to over 100,000 square meters in area.	Does not occur.
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP(a)	Seasonal vernal pools	Absent.
Fish			
Arroyo chub *Gila orcutti*	Federal: None State: SSC MSHCP	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	Does not occur.
Southern steelhead - southern California DPS *Oncorhynchus mykiss irideus* pop. 10	Federal: FE State: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County.)	Does not occur.
Amphibians			
Arroyo toad *Anaxyrus californicus*	Federal: FE State: SSC MSHCP(c)	Breed, forage, and/or aestivate in aquatic habitats, riparian, coastal sage scrub, oak, and chaparral habitats. Breeding pools must be open and shallow with minimal current, and with a sand or pea gravel substrate overlain with sand or flocculent silt. Adjacent banks with sandy or gravely terraces and very little herbaceous cover for adult and juvenile foraging areas, within a moderate riparian canopy of cottonwood, willow, or oak.	Does not occur.
California red-legged frog *Rana draytonii*	Federal: FT State: SSC MSHCP(c)	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Does not occur.
Coast Range newt *Taricha torosa*	Federal: None State: SSC	Found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands are used.	Does not occur.
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Present.

Species Name	Status	Habitat Requirements	Occurrence
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Potential to occur.
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Potential to occur.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Potential to occur.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Potential to occur.
Orangethroat whiptail *Aspidoscelis hyperythra*	Federal: None State: WL MSHCP	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Potential to occur.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Potential to occur.
San Bernardino ringneck snake *Diadophis punctatus modestus*	Federal: None State: None	Moist habitats including woodlands, forest, grasslands, chaparral, farms, and gardens.	Potential to occur.
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats that any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Not expected to occur.
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snakes are typically associated with wetland habitats such as streams, creeks, and pools.	Not expected to occur.
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Birds			
Bald eagle (nesting & wintering) *Haliaeetus leucocephalus*	Federal: Delisted State: SE, FP MSHCP	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	Does not occur.
Bell's sage sparrow *Artemisiospiza belli belli*	Federal: None State: WL MSHCP	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Potential to occur.
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC MSHCP(c)	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Not detected.
California horned lark *Eremophila alpestris actia*	Federal: None State: WL MSHCP	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	Present.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Not expected to occur.
Cooper's hawk (nesting) *Accipiter cooperi*	Federal: None State: WL MSHCP	Primarily occurs in riparian areas and oak woodlands, most commonly in montane canyons. Known to use urban areas, occupying trees among residential and commercial.	Present.
Ferruginous hawk (wintering) *Buteo regalis*	Federal: None State: None MSHCP	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Potential to occur.
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: None State: FP MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Does not occur.
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Present.

Species Name	Status	Habitat Requirements	Occurrence
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: None State: SSC MSHCP	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Potential to occur.
Long-eared owl (nesting) *Asio otus*	Federal: None State: SSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Does not occur.
Osprey (nesting) *Pandion haliaetus*	Federal: None State: None MSHCP	Ocean shores, bays, fresh-water lakes, and larger streams. Builds large nests in tree-tops within 15 miles of good fish-producing body of water.	Does not occur.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: None MSHCP	Grass covered hillsides, coastal sage scrub, and chaparral.	Potential to occur.
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST MSHCP	Summer in wide open spaces of the American West. Nest in grasslands but can use sage flats and agricultural lands. Nests are placed in lone trees.	Does not occur.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: CE, SSC MSHCP	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur.
White-faced ibis (nesting colony) *Plegadis chihi*	Federal: None State: None MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not occur.
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP MSHCP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Does not occur.
Yellow rail *Coturnicops noveboracensis*	Federal: None State: SSC	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish marshes, as well as dense, deep grass, and rice fields.	Does not occur.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Present.

Species Name	Status	Habitat Requirements	Occurrence
Yellow warbler *Setophaga petechia*	Federal: BCC State: SSC	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Present.
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Does not occur.
Dulzura pocket mouse *Chaetodipus californicus femoralis*	Federal: None State: SSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Potential to occur.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: None MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Potential to occur.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Does not occur.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SC (state candidate) MSHCP(c)	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: None MSHCP	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	Potential to occur.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Potential to occur.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Potential to occur.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST SKR HCP/MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Potential to occur.

Species Name	Status	Habitat Requirements	Occurrence
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Does not occur.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Does not occur.
Yuma myotis *Myotis yumanensis*	Federal: None State: None WBWG: LM	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Does not occur.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
FP – California Fully-Protected Species
SSC – Species of Special Concern

MSHCP
MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Not detected – The site contains suitable habitat for the species (or has the potential to), but the species was not detected during focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur based on suitable habitat; however, its presence/absence has not been confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

4.5.1 Special-Status Wildlife Species Observed within the Project Site

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*, CBB) is a CDFW Candidate for listing under CESA, and as a Candidate, CBB is subject to the same protections as listed species. CBB is not a MSHCP covered species and therefore, impacts to CBB habitat resulting in "take" would require an ITP from CDFW.

CBB exhibits a life cycle generally consistent with other bumble bee species. Bumble bees are social insects that live in colonies composed of a queen, workers, and reproductives (males and new queens[gynes]). Colonies are annual and only the new, mated queens overwinter. These queens emerge from hibernation in late winter/early spring (February or March) and immediately start foraging for pollen and nectar and begin to search for a nest site. CBB nesting ecology is currently not well documented; however, typical of other *Bombus* species, nests are often located underground in abandoned rodent burrows and CBB may also utilize manmade or natural material debris piles. Initially, the queen does all the foraging and cares for the colony until the first workers emerge and assist with these duties. Bumble bees collect both nectar and pollen from the plants that they pollinate.

The CBB Colony Flight Season reportedly ranges from March/April to the end of August, typically with a peak in queen activity in April. Workers and males are generally active late March to August/September, with colony activity peaking in early July. The gyne flight season is generally from September to October, at which point the gynes seek shelter for overwintering. Overwintering of CBB is not well understood, but it is thought CBB gynes overwinter similar to other bumble bees, underground in soft, disturbed soil or under loose plant matter or debris. CDFW recognizes the Overwintering Period as occurring from November 1 to January 31.

CBB is a short-tongued species and is characterized as a dietary generalist due to the wide range of host plants visited. Multiple datasets demonstrate the occurrence of CBB on certain floral taxa. Thorp et al. (1983) notes that CBB occurrences were associated most often with plants in the Fabaceae, Lamiaceae, Hydrophyllaceae, Asclepiadaceae, and Asteraceae families. Williams et al. (2014) state that CBB is associated with milkweeds (*Asclepias* spp.), dusty maidens (*Chaenactis* spp.), lupines (*Lupinus* spp.), medics (*Medicago* spp.), phacelias (*Phacelia* spp.), and sages (*Salvia* spp.).

GLA biologists detected CBB during the focused surveys, as well as an additional (non-listed) bumble bee (California bumble bee, *B. californicus*). During the May 22, 2024, visit, one CBB queen and two daughters were observed feeding on white sage and California buckwheat that was flowering within the Riversidean sage scrub vegetation and scattered white sage within the adjacent grasslands. The CBB individuals were also observed flying to and from the grassland habitat within the flatter part of the Project site. During the July 3, 2024, visit, two CBB males were observed immediately offsite near the same general areas where the CBB individuals were detected onsite during the May 22 survey visit. No CBB individuals were detected during the 2025 surveys. Section 5.2.2 and Section 6.6 below discusses potential impacts and proposed mitigation.

Western Spadefoot

The western spadefoot is designated as a CDFW Species of Special Concern and is a MSHCP Covered Species. The western spadefoot (tadpoles) was observed within Vernal Pools 1, 2 and 3 while conducting the 2024 wet season fairy shrimp surveys.

This near endemic to California ranges from the vicinity of Redding, Shasta County, southward into northwestern Baja California, Mexico (Stebbins 1985). Its known elevational range extends from near sea level to 1363 m [4,500 feet] (Zeiner et al. 1988). In California, the known range of *S. hammondii* is entirely west of the Sierran-desert range axis (Myers 1944).

Spadefoots may be found in coastal sage scrub, chaparral, and grasslands habitats, but are most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas (Holland and Goodman 1998). Within these habitats, spadefoots require rain pools with water temperatures between 9°C - 30°C in which to reproduce (Brown 1966, 1967), and that persist with more than three weeks of standing water (Feaver 1971) in which to metamorphose successfully. Within any given year, spadefoots spend most of the time (8 to 10 months) underground in burrows approximating one meter in depth (Stebbins 1972), with the burrows located in uplands adjacent to breeding sites. As such, it is possible that spadefoots that breed in the Vernal Pools 1, 2 and 3 aestivate in burrows within the development footprint, although that could not be confirmed during the biological surveys.

Adult spadefoots are almost entirely nocturnal, emerging from underground burrows during relatively warm (>/= 10.0-12.8 degrees Celsius) rainfall events to breed, typically from January through March; although, they may also emerge in any month between October and April if rain thresholds are met (Stebbins 1972, Morey and Guinn 1992, Jennings and Hayes 1994, Holland and Goodman 1998). Whether the adult spadefoots come from the development footprint, the RCA Conserved Lands, or other adjacent lands, the spadefoots migrate from their aestivation burrows to the vernal pools for breeding.

Rain pools in which western spadefoots reproduce and from which they are able to metamorphose typically lack fishes, bullfrogs, and crayfishes; and many indications exist that spadefoots cannot recruit successfully in the presence of exotic predators, primarily introduced fishes, but also bullfrogs and crayfishes. GLA observed crayfish in Vernal Pool 1 and 3, and although spadefoot tadpoles were observed in those pools, the presence of the crayfish indicate a potential predation threat.

Least Bell's Vireo

The least Bell's vireo (LBV) is designated as a federal and state endangered species and is a MSHCP Covered Species. A male LBV (presumed nesting based on behavior) was detected within Alberhill Creek during every survey visit in proximity to the Nichols Road crossing of the Creek [Exhibit 14].

LBV breeds entirely within California and northern Baja California. The LBV generally begins arriving at its breeding grounds during the third week in March. The height of the breeding

season generally extends from April 10 through July 31, although it can begin before and end later than these dates. During the breeding season, the LBV primarily occupies riverine riparian habitats that typically feature dense cover within 1-2 meters of the ground and a dense, stratified canopy. It inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically, the species is associated with southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities.

The LBV primarily nests in small, remnant segments of vegetation typically dominated by willows and mule fat but may also use a variety of shrubs, trees, and vines. The birds forage in riparian and adjoining chaparral or scrub habitat (Salata 1983). Nests are typically built within one meter of the ground in the fork of willows (*Salix* sp.), mule fat (*Baccharis salicifolia*), wild rose (*Rosa californica*), or other understory vegetation (Franzreb 1989). Cover surrounding nests is moderately open mid-story, with an overstory of willow, cottonwood, sycamore, or oak. Crown cover is usually more than 50 percent and contains occasional small openings. The most critical structural component to LBV breeding habitat is a dense shrub layer at one to three meters (three to 10 feet) above the ground (Goldwasser 1981, Franzreb 1989).

During the spring and fall migration, the LBV occupies a wider range of habitats including coastal sage scrub and woodland habitats. The LBV generally departs to its wintering grounds during August and September. The LBV winters in southern Baja California and central Mexico. Winter range habitat includes thorn scrub vegetation adjacent to watercourses or in riparian gallery forests along the west coast of north and central Mexico. The LBV generally does not occur within California during its wintering season, but some occurrences near San Diego have been documented. Decreases in populations of least Bell's vireo have been attributed to habitat degradation/destruction and cowbird parasitism.

Yellow Warbler

The yellow warbler is designated as a CDFW Species of Special Concern when nesting and is a MSHCP Covered Species. The yellow warbler was observed within Alberhill Creek adjacent to Nichols Road and within the proposed RCA Conserved Lands.

This species breeds widely in the New World and comprises three subspecies groups, only one of which occurs in California. *D. p. sonorana*, the Sonora yellow warbler, breeds only along the lower Colorado River in California, and from southern Arizona and southwest New Mexico to north-central Mexico and possibly the Colorado River Delta (Browning 1994, McKernan and Braden 2002). The Sonoran yellow warbler arrives to breed on the lower Colorado River in early April and nests mainly from mid-May through July (Rosenberg et al. 1991) and rarely to late August (R. McKernan unpubl. data).

The Sonora yellow warbler formerly bred in the willow and cottonwood habitats that lined the Colorado River (Rosenberg et al. 1991). Yellow warblers placed their nests in decadent willow stands and revegetated cottonwoods at Lake Havasu, Arizona (Lynn and Averill 1996). From 1996 to 2002, over 75% of 100+ *sonorana* nests found downstream of Davis Dam on the lower Colorado River were in tamarisk (R. McKernan in litt.). A preliminary analysis of nest

microhabitat characteristics in relation to nesting success found no significant effects of tamarisk on the fate or productivity of *sonorana* nests (K. Ferree unpubl. data, summarized in McKernan and Braden 2002).

Brown (1903) reported that in the early 20th century *sonorana* countered brown-headed cowbird (*Molothrus ater*) parasitism by burying cowbird eggs. In California, yellow warblers attempt several nests throughout the season but typically produce only one brood (very rarely two) per year (PRBO unpubl. data). However, basic life history traits of *sonorana*, such as the number of nesting attempts and extent of double brooding, are unreported.

Likewise, there are no specific studies of the diet of *sonorana*. The yellow warbler is a generalist species that appears to adapt its foraging to variation in local vegetation structure (Petit et al. 1990). The overall yellow warbler diet in California contained over 97% animal matter, including ants, bees, wasps, caterpillars, beetles, true bugs, flies, and spiders (Beal 1907).

The halting of annual flooding, agricultural and urban development within historic floodplains, tamarisk invasions, and the death of much of the remaining riparian vegetation from excessive flood-control releases from dams have changed the structure, plant species composition, and function of the lower Colorado River's riparian system. As noted above, Rosenberg et al. (1991) suggested that the resulting major losses of willow-cottonwood riparian on the river were the initial and primary cause of yellow warbler declines.

Yellow-Breasted Chat

The yellow-breasted chat is designated as a CDFW Species of Special Concern when nesting and is a MSHCP Covered Species. The chat was detected in Alberhill Creek near Nichols Road and within the proposed RCA Conserved Lands.

Yellow-breasted chats as a whole summer and nest from British Columbia eastward to New Hampshire, and southward to Baja California and northern, mainland Mexico. The species presumably migrates throughout much of North America and winters primarily from northern Mexico to Panama (AOU 1998).

Zeiner, et al. (1990) summarize the distribution, abundance, and seasonality of the yellow-breasted chat within California as follows. The yellow-breasted chat is an uncommon summer resident and migrant in coastal California and in the foothills of the Sierra Nevada. The chat is found up to about 1,450 meters (4,800 ft) in valley foothill riparian, and up to 2,050 meters (6,500 ft) east of the Sierra Nevada in desert riparian habitats (Gaines 1977, DeSante and Ainley 1980, Garrett and Dunn 1981). The yellow-breasted chat is uncommon along the coast of northern California and occurs only locally south of Mendocino County (McCaskie, et al. 1979). In Southern California, the species breeds locally on the coast and very locally inland and at lower elevations nearly throughout the region (Garrett and Dunn 1981).

In migration, the yellow-breasted chat may be found in lower elevations of mountains in riparian habitat (McCaskie, et al. 1979). It usually arrives in April and departs by late September for the wintering grounds in Mexico and Guatemala. The species may also wander upslope during the

post-breeding season (Gaines 1977). There are a few late fall and winter records of the yellow-breasted chat, mostly from Southern California. Migrants sometimes pass through lower elevations in mountains. Migrants of the species are encountered only rarely to uncommonly away from breeding centers, and there are no confirmed mid-winter records in the region (Garrett and Dunn 1981).

Once considered fairly common to common in California (Grinnell and Miller 1944), the yellow-breasted chat has been more recently judged to be uncommon and local in Southern California (Garrett and Dunn 1981).

Yellow-breasted chats as a whole may nest in second-growth, riparian thickets and brush (AOU 1998). By contrast, yellow-breasted chats in Southern California are primarily found in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Grinnell and Miller (1944) suggested that the plant cover in breeding habitat must be dense to provide shade and concealment.

The loss and fragmentation of riparian woodlands in the coastal lowland as a result of development, agriculture, and channeling rivers has led to the decline of the yellow-breasted chat. Garrett and Dunn (1981) concluded that the clearing of dense riparian thickets and brush tangles has caused a noticeable decline in the number of breeding pairs of the chat. Cowbird parasitism may have played an additional role in the decline of the yellow-breasted chat affecting its distribution in addition to its density (Gaines 1974, Remsen 1978).

Cooper's Hawk

Cooper's hawk is a state Watch List species, and the species is considered locally rare when nesting. Cooper's hawk is a MSHCP Covered Species. Cooper's hawk was observed foraging within the Project site but would not nest within the development footprint due to a lack of suitable habitat.

In California, the Cooper's hawk is a breeding resident throughout most of the wooded portion of the state. It breeds in the southern Sierra Nevada foothills, New York Mountains, Owens Valley, and other local areas in Southern California. Its breeding range is from sea level to above 2,700 m (9,000 ft). This species was once considered a common nester throughout California (Grinnell and Miller 1944). In Southern California, the species is present year-round nearly throughout the state, except for the Colorado River and desert areas, where the species no longer breeds (Garrett and Dunn 1981). Although the Cooper's hawk breeds in Southern California and has a year-round resident population, it also occurs in the region as a spring and fall migrant and as a winter resident (Garrett and Dunn 1981).

Throughout its range, the Cooper's hawk breeds in deciduous, mixed, and evergreen forests and deciduous stands of riparian habitat (Rosenfield and Bielefeldt 1993). The Cooper's hawk breeds primarily in riparian areas and oak woodlands and apparently is most common in montane canyons (Garrett and Dunn 1981; Hamilton and Willick 1996). It frequents landscapes where wooded areas occur in patches and groves and it often uses patchy woodlands and edges with

snags for perching (Beebe 1974). This species is seldom found in areas without dense tree stands or patchy woodland habitat (Zeiner, et al. 1990). Within the range in California, it most frequently uses dense stands of live oak, riparian deciduous, or other forest habitats near water (Zeiner, et al. 1990). Dense stands with moderate crown-depths are usually used for nesting (Zeiner, et al. 1990). The Cooper's hawk tends to nest in stands with lower densities of taller and larger trees and a greater proportion of hardwood cover than conifer species when compared to other accipiters (Trexel, et al. 1999). Migrant and wintering birds are generally more catholic in their choice of habitats and may be found with regularity in developed (e.g., suburban) areas. They hunt in broken woodland and habitat edges, catching predominantly avian prey in the air, on the ground, and in vegetation.

California Horned Lark

California horned lark is a state Watch List species, and the species is considered locally rare when nesting. California horned lark is an MSHCP Covered Species. The horned lark was observed foraging within open grassland areas at the Project site and has a potential to nest onsite.

The California horned lark breeds and resides in the coastal region of California from Sonoma County southeast to the United States/Mexican border, including most of the San Joaquin Valley, and eastward to the foothills of the Sierra Nevada (Grinnell and Miller 1944; AOU 1998). Zeiner, et al. (1990) summarize the distribution, abundance, and seasonality as follows. It is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. It is found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above tree line. It is less common in mountain regions, on the north coast (McCaskie, et al. 1979), and in coniferous or chaparral habitats. It mostly leaves the mountains in the winter, but small flocks may remain to winter on windswept, snow-free areas at high elevations in the Sierra Nevada (Gaines 1977). In winter, flocks in desert lowlands and other areas are augmented by winter visitants, many migrating from outside the state (Garrett and Dunn 1981). It is a resident on the Channel Islands (Garrett and Dunn 1981). It is a year-long resident within the state. After breeding, it becomes very gregarious; it often forms large flocks that forage and roost together. Migrants from outside of California join these wintering flocks, especially in the southeastern desert region of the state. Migrant status on the Farallon Islands indicates a latitudinal movement along the coast as well (DeSante and Ainley 1980).

The California horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent (Zeiner, et al. 1990). In the Midwest, the species has been characterized as the most abundant species in row-crop fields (Best, et al. 1998). Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats (Grinnell and Miller 1944). In nonagricultural lands, it typically inhabits areas of short vegetation or bare ground, including shortgrass prairie, deserts, brushy flats, and alpine habitat. In shrubsteppe habitats, it occupies areas characterized by low vegetation. Within Southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands (Garrett and Dunn 1981; Hamilton and Willick 1996). Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

Continuing threats to the California horned lark include habitat destruction and fragmentation. The habitat of the California horned lark is easily converted to other landscapes and human uses. Pesticides, specifically Carbofuran and Fenthion, have been shown to poison and kill horned larks (Beason 1995). A total of 44 percent of nest failures have been attributed to mowing in airport grasslands occupied by horned larks (Kershner and Bollinger 1996).

4.5.2 Listed Fairy Shrimp

The Project site contains four seasonal pond features with a potential to support listed fairy shrimp, including one feature within the Industrial portion of the Project (described in this report as a stock pond), and three features (described as vernal pools) that either overlap with the offsite improvements and maintenance associated with Baker Street or are immediately adjacent in the RCA Conserved Lands. All four features have the potential to support listed fairy shrimp. Based on the depth of the ponds and the likely maximum duration of ponding, the listed species for consideration are the vernal pool fairy shrimp (*Branchinecta lynchi*) and the San Diego fairy shrimp (*Branchinecta sandiegonensis*). As such, the four ponds require protocol surveys (dry season and wet season) to determine the presence or absence of listed fairy shrimp. The Riverside fairy shrimp (*Streptocephalus woottonii*) is generally not expected to be present due to the limited ponding duration of all four ponds; however, protocol survey for the vernal pool fairy shrimp and San Diego fairy shrimp would also address the Riverside fairy shrimp.

2023 Dry Season Surveys

Cysts belonging to the genus *Branchinecta* were isolated from soil samples in Pools 1, 2 and 3, but not from Pool 4. Adult *B. lindahli* were reared from cultures in Pools 1, 2 and 3. No suspected hybrids between *B. lindahli* and the federally listed *B. sandiegonensis* were identified. Appendix D provides the complete report of dry season fairy shrimp surveys.

2023/2024 Wet Season Surveys

The versatile fairy shrimp (*B. lindahli*) was detected in Pools 1, 2 and 3, but not in Pool 4. These results are consistent with the findings of the preceding dry season surveys. No listed fairy shrimp species were detected. Appendix E provides the complete report on wet season fairy shrimp surveys.

4.5.3 Burrowing Owl

No burrowing owls were detected within the Project site during focused surveys. Exhibit 8 provides the locations of areas surveyed, including approximate transect locations as well as the locations of suitable burrows that were mapped. Burrows were scattered throughout the onsite portion of the Project, with many concentrated along a fence line within the RCA Conserved Lands. No burrowing owl sign was observed at any of the burrows within the disturbance limits, but a single owl pellet was observed at a burrow within the RCA Conserved Lands along the fence line. It was not clear how old the pellet was but given the lack of other sign and that no

owls were observed during the surveys, the pellet likely indicates a transient owl that was not occupying the site during the focused surveys.

4.5.4 Additional Special-Status Animals with a Potential to Occur

As described above in Table 4-3, besides those special-status animals that were detected at the Project site during biological surveys, additional species have the potential to occur based on the presence of suitable habitat. These include several lizards and snakes (California glossy snake, coastal whiptail, coast-horned lizard, coast patch-nosed snake, orangethroat whiptail, red-diamond rattlesnake and San Bernardino ringneck snake), three birds (Bell's sage sparrow, loggerhead shrike and Southern California rufous-crowned sparrow) and several small mammals (Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, southern grasshopper mouse, San Diego desert woodrat and Stephens' kangaroo rat). None of these species have MSHCP survey/mitigation requirements.

The reptiles have the potential to occur in the grassland areas and/or the Riversidean sage scrub habitat. The loggerhead shrike has the potential to occur throughout the Project site for foraging, whereas the sage sparrow and rufous-crowned sparrow would primarily be associated with the Riversidean sage scrub, if present. The small mammals, if present, would primarily utilize the grassland areas.

With the exception of Stephens' kangaroo rat (SKR) none of these species are federal or state listed. SKR is a federal endangered and state threatened species; however, the potential take of SKR is covered pursuant to the SKR Habitat Conservation Plan (SKR HCP). The Project site is within the SKR Fee Assessment Area, and all projects are required to pay the SKR development fees regardless of whether SKR is present or absent. As such, any impacts to SKR are covered through payment of the SKR fee.

4.5.5 Raptor Use

The Project site provides suitable foraging and breeding habitat for a number of raptor species, including special-status raptors.

Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as Red-tailed Hawk (*Buteo jamaicensis*) and American Kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

Many of the raptors that would be expected to forage and nest within western Riverside are fully covered species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American kestrel and Red-tailed Hawk) are not covered by the MSHCP but are expected to be conserved with

implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan.

It is important to understand that the MSHCP does not provide MBTA and Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the hawks and falcons detected over the course of the field studies. These species were Cooper's hawk (*Accipiter cooperi*), red-tailed hawk (*Buteo jamaicensis*), ferruginous hawk (*B. regalis*) and American kestrel (*Falco sparverius*). The ferruginous hawk migrates through the region in spring/fall and may over winter in the area. The Project site lacks potential nesting habitat (e.g., mature trees, shrubs) for the other species but is expected to provide foraging habitat that supports prey such as insects, spiders, lizards, snakes, small mammals, and other birds.

4.6 Nesting Birds

The Project site contains trees, shrubs, and ground cover that provide suitable habitat for nesting native birds. Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

4.7 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a connection between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted but may be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

Most of the Project site is in Criteria Cell 4166. The proposed development footprint is in the southwestern portion of Cell 4166, whereas the northeastern portion of the Cell includes Alberhill Creek and Collier Marsh. Lands described for conservation in Cell 4166 (the northeastern part of the Cell) will contribute to the assembly of Proposed Linkage 2, which represents habitat comprised of Collier Marsh and Temescal Creek. Planning Species associated with Proposed Linkage 2 consist of various bird species that utilize riparian and marsh habitats, including yellow-breasted chat, downy woodpecker, least Bell's vireo, yellow warbler and southwestern willow flycatcher. The proposed Project will not impact Alberhill Creek/Collier

Marsh and the Linkage functions associated with Proposed Linkage 2. In fact, the Project is conserving lands that include the creek/marsh, and also includes adjacent lands that are not described for conservation but will buffer the open space from the Project. The Project site supports the local movement of wildlife but not related to Proposed Linkage 2.

4.8 Critical Habitat

A portion of the Project site is within USFWS-designated Critical Habitat for San Diego ambrosia, specifically Subunit 1B (Nichols Road). The majority of the Critical Habitat Subunit associated with the Project site is within the proposed RCA Conserved Lands, with a smaller portion associated with the proposed offsite improvements to Nichols Road and Pierce Street. However, no actions are required for the Project relative to the Critical Habitat designation for San Diego ambrosia. Critical Habitat designations do not affect activities for private projects if there is no federal "nexus", i.e., there is no federal funding or federal permits required to carry out the activity. Only activities that involve a federal permit, license, or funding, and are likely to destroy or adversely modify critical habitat must be addressed through consultation between the USFWS and the applicable federal agency for which a nexus exists.

4.9 Jurisdictional Waters

4.9.1 Corps Jurisdiction

The Project site contains approximately 2.33 acres of Corps jurisdictional waters, all of which is associated with Alberhill Creek and located within the proposed RCA Conserved Lands. The Project site also contains six ephemeral drainage features and three seasonal ponds that are addressed below as jurisdiction for the Regional Board and/or CDFW, but that are not considered to comprise Corps jurisdiction. However, an Approved Jurisdictional Determination (AJD) would be required by the Corps to affirm that these features are not jurisdictional. Table 4-4 summarizes Corps jurisdictional associated with the Project site. The boundaries of Corps jurisdiction are depicted on the enclosed delineation map [Exhibit 9A].

Table 4-4. Corps Jurisdiction at the Project Site

Drainage	Non-Wetland Waters (acres)	Wetlands (acres)	Total Corps Jurisdiction (acres)	Length (linear feet)
Alberhill Creek	0	2.33	**2.33**	700

Alberhill Creek

Corps jurisdiction associated with Alberhill Creek totals 2.33 acres, all of which consists of wetland waters of the U.S.

Alberhill Creek enters the Project's RCA Conserved Land from the southeast and extends in a northwesterly direction for approximately 700 linear feet before exiting the conserved parcels just before the Nichols Road crossing. Alberhill Creek conveys perennial flows and is tributary to Temescal Creek (an RPW), which is tributary to the Santa Ana River (an RPW), and eventually, the Pacific Ocean (a TNW). The portion of the low flow channel in the Study Area is approximately 14 feet in width and exhibited flowing water and ponding at the time of the field assessment.

Alberhill Creek is dominated by southern willow scrub riparian habitat with an alkali playa component occurring in the abutting floodplain. A majority of the alkali playa component in the northeastern portion of the Site exhibits at least some degree of soil disturbance and alterations to the hydrologic regime as evidenced by the presence of tire tracks, road ruts, and unauthorized dumping. Since the playa is both adjacent and hydrologically connected to Alberhill Creek, it is subject to Corps jurisdiction under Section 404 of the CWA.

Dominant riparian/wetland vegetation associated with Alberhill Creek includes salt cedar (*Tamarix ramosissima*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and mulefat, with alkali bulrush (*Bolboschoenus maritimus*), common toad rush (*Juncus bufonius*), and cattail (*Typha* spp.). Other common plants include common nettle (*Urtica dioica*), summer mustard, silverscale saltbush, San Jacinto Valley crownscale, western ragweed (*Ambrosia psilostachya*), saltgrass, and annual rabbitsfoot grass.

The larger floodplain abutting the Creek exhibits sign of temporary inundation during the wet season as evidenced by the presence of surface soil cracks, salt crusts, ponding, and patchy facultative (FAC) or wetter alkali-adapted species, including salt grass, alkali weed (*Cressa truxillensis*), goldfields (*Lasthenia* ssp.), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), bush seepweed (*Suaeda nigra*), and small flowered ice plant (*Mesembryanthemum nodiflorum*). Wetland indicators include strongly saline-alkaline soils, disturbed and/or bare areas indicative of alkali habitat, and the presence of wetland hydrology.

4.9.2 Regional Board Jurisdiction

Regional Board jurisdiction within the Project site totals approximately 4.65 acres, of which 4.05 acres consist of wetlands. Table 4-5 summarizes the Regional Board jurisdiction associated with the Project site. In addition to the above description for Alberhill Creek, the additional Regional Board jurisdictional features are described below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9B].

Table 4-5. Regional Board Jurisdiction at the Project Site

Drainage	Non-Wetland Waters of the State (acres)	Wetland Waters of the State (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Alberhill Creek	0	2.33	**2.33**	730
Drainage A	0.15	0	**0.15**	2,034
Drainage B	0.13	0	**0.13**	716
Drainage C	0.03	0	**0.03**	638
Drainage D	0.07	0	**0.07**	899
Drainage E	0.02	0	**0.02**	280
Drainage F	0.20	0	**0.20**	1,480
Vernal Pool 1	0	0.45	**0.45**	N/A
Vernal Pool 2	0	0.41	**0.41**	N/A
Vernal Pool 3	0	0.86	**0.86**	N/A
Total	**0.60**	**4.05**	**4.65**	**6,777**

Alberhill Creek

Approximately 2.33 acres of Regional Board jurisdiction are associated with Drainage A, of which 2.30 acres are within the RCA Conserved Lands. Alberhill Creek enters the Project's RCA Conserved Lands from the southeast and extends in a northwesterly direction before exiting the conserved parcels just before the Nichols Road crossing.

Alberhill Creek is dominated by southern willow scrub riparian habitat with an alkali playa component occurring in the abutting floodplain. A majority of the alkali playa component in the northeastern portion of the site exhibits at least some degree of soil disturbance and alterations to the hydrologic regime as evidenced by the presence of tire tracks, road ruts, and unauthorized dumping.

Dominant vegetation associated with Alberhill Creek includes salt cedar (*Tamarix ramosissima*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and mulefat (*Baccharis salicifolia*), with alkali bulrush (*Bolboschoenus maritimus*), common toad rush (*Juncus bufonius*), and cattail (*Typha* spp.). Other common plants include common nettle (*Urtica dioica*), summer mustard (*Hirschfeldia incana*), silverscale saltbush (*Atriplex argentea*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), western ragweed (*Ambrosia psilostachya*), saltgrass (*Distichlis spicata*), and annual rabbitsfoot grass (*Polypogon monspeliensis*).

Drainage A

Regional Board jurisdiction associated with Drainage A totals 0.15 acre, none of which is wetland.

Drainage A originates offsite to the southwest, extending through the onsite portion of the Project to Baker Street for 884 linear feet where it crosses under Baker Street through a pipe culvert continuing in a northeasterly direction for approximately 1,150 linear feet before its confluence with Alberhill Creek. The lower portion of Drainage A in the parcel boundary drains into one of three vernal pools (described separately below) before continuing its course towards Alberhill Creek. Drainage A ranges from two to six feet in width as evidenced by water marks, changes in soil characteristics, and bent vegetation. This feature flows only in direct response to precipitation and was completely dry during the field investigations.

Vegetation associated with Drainage A includes foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), rattail fescue (*Festuca myuros*), common Mediterranean grass (*Schismus barbatus*), cheeseweed (*Marva parviflora*), wild oats (*Avena fatua*), common fiddleneck (*Amsinckia intermedia*), stinknet (*Oncosiphon piluliferum*), annual mustard (*Brassica* ssp.), shortpod mustard, goldenbush (*Isocoma menziesii*), London rocket (*Sisybrium irio*), heliotrope (*Heliotropium curassavicum*), and a single tamarisk. Additional species observed in the downstream reach include salt grass, alkali weed, and ragweed.

Drainage B

Regional Board jurisdiction associated with Drainage B totals 0.13 acre, none of which is wetland.

Drainage B is an earthen ephemeral drainage that enters the Baker parcel from the west along the edge of a dilapidated rural residence and extends in a northeasterly direction for approximately 716 linear feet towards Baker Street. Drainage B conveys storm water flows and receives irrigation runoff from the adjacent rural residence. The drainage extends up to ten feet in width as evidenced by changes in soil characteristics and bent vegetation.

Vegetation associated with Drainage B consists primarily of semi-natural herbaceous grassland that includes foxtail barley, soft chess, ripgut brome, red brome, rattail fescue, common Mediterranean grass, cheeseweed, wild oats, common fiddleneck, stinknet, annual mustard, summer mustard, goldenbush, heliotrope, and London rocket.

Drainage C

Regional Board jurisdiction associated with Drainage C totals 0.03 acre, none of which is wetland.

Drainage C is an erosional ephemeral drainage that originates offsite from the adjacent hillsides and extends a northerly direction for approximately 638 linear feet towards Baker Street. Drainage C averages two feet in width as evidenced by changes in soil characteristics and eroded channel banks in the upstream reach. The drainage bottom contains cobbles and was completely dry during the field investigations.

Vegetation associated with Drainage C consists primarily of semi-natural herbaceous grassland that includes foxtail barley, soft chess, ripgut brome, red brome, rattail fescue, common Mediterranean grass, cheeseweed, wild oats, common fiddleneck, stinknet, annual mustard, summer mustard, goldenbush, heliotrope, and London rocket. Areas adjacent to the drainage contain patches of California buckwheat (Eriogonum fasciculatum), bush sunflower (Encelia californica), and California sagebrush (Artemisia californica).

Drainage D

Regional Board jurisdiction associated with Drainage D totals 0.07 acre, none of which is wetland.

Drainage D is an erosional drainage that occurs in the southwestern portion of the Baker parcel. The drainage originates offsite from the southwest and meanders in a northeasterly direction for approximately 899 linear feet before exiting the parcel boundary at an existing rural residence. Drainage D ranges between two and six feet in width and contains eroded banks and cobbles. This feature conveys flow only in direct response to precipitation and was completely dry during the field investigation.

Vegetation associated with Drainage D consists primarily of semi-natural herbaceous grassland that includes foxtail barley, soft chess, ripgut brome, red brome, rattail fescue, common Mediterranean grass, cheeseweed, wild oats, common fiddleneck, stinknet, annual mustard, summer mustard, goldenbush, heliotrope, and London rocket. Areas adjacent to the drainage contain patches of California buckwheat, bush sunflower, and California sagebrush.

Drainage E

Regional Board jurisdiction associated with Drainage E totals 0.02 acre, none of which is wetland.

Drainage E is an earthen ephemeral drainage that originates as run-off from Nichols Road. This feature extends in an easterly direction for approximately 280 linear feet before dissipating as sheet flow. The drainage averages three feet in width, and depending on rainfall amounts, conveys a surficial connection to Alberhill Creek. Vegetation associated with the drainage is limited to non-native upland grasses and weeds including foxtail barley, soft chess, ripgut brome, red brome, rattail fescue, common Mediterranean grass, cheeseweed, wild oats, common fiddleneck, stinknet, annual mustard, summer mustard, heliotrope, and London rocket. This drainage lacks hydrophytic vegetation and was completely dry during the field investigations.

Drainage F

Regional Board jurisdiction associated with Drainage F totals 0.20 acre, none of which is wetland.

Drainage F consists of a roadside drainage channel along the northern edge of Nichols Road. This feature extends in an easterly direction for approximately 1,480 linear feet. The drainage

averages six feet in width and is generally unvegetated.

Vernal Pools (Wetlands)

The Project site contains three areas on the northeastern side of Baker Street that pond seasonally. These areas are referenced herein as Vernal Pools 1, 2, and 3. Vernal Pools 1 and 2 are located adjacent to but do not directly abut Alberhill Creek. Vernal Pool 3 is connected to Drainage A, which connects with Alberhill Creek. These vernal pools are treated here as potentially subject to Corps jurisdiction until they are confirmed non-jurisdictional through the Corps AJD process.

Vernal Pool 1

Regional Board jurisdiction associated with Vernal Pool 1 totals 0.45 acre, all of which consists of wetlands. Vernal Pool 1 contains a strong alkaline component and supports FAC or wetter dominant species, including salt grass, Coulter's goldfields, vernal barley, and San Jacinto Valley crownscale. This feature is considered an adjacent wetland due to its elevation and proximity to Alberhill Creek, the presence of surface soil cracks, wetland vegetation, and moderately to very strongly alkaline soils.

Vernal Pool 2

Regional Board jurisdiction associated with Vernal Pool 2 totals 0.41 acre, all of which consists of wetlands. Vernal Pool 2 contains a strong alkaline component and was generally bare during the field assessment. Although this feature lacks vegetation, this feature meets the Problematic Hydrophytic Vegetation criteria as defined in the Arid West Supplement due to landscape position and proximity to Alberhill Creek, temporal shifts in vegetation, the presence of surface soil cracks, and seasonally ponded soils.

Vernal Pool 3

Regional Board jurisdiction associated with Vernal Pool 3 totals 0.86 acre, all of which consists of wetlands. This feature is fed by surface water and Drainage A flows, and directly abuts Drainage A. This area ponds during the wet season and supports Coulter's goldfields, vernal barley, and bare areas during most years. This feature is considered a wetland due to the presence of surface soil cracks, vegetation that is dominated by hydrophytes and/or is lacking and contains seasonally ponded soils.

Non-Jurisdictional Pond

The Project site contains a 0.17-acre stock pond located south of Baker Street (identified as "Pool 4" in the context of fairy shrimp surveys). This feature was created in the uplands for the purposes of agricultural crop irrigation and/or stock watering. Pursuant to the State Wetland Procedures, artificial features such as stock ponds are not considered waters of the State unless they also satisfy the criteria set forth in 2, 3a, or 3b of the Procedures. As the stock pond is less

than one acre in size and was created for the purposes of stock watering, it meets the exclusion criteria identified in 3(d)(v) and is not subject to regulation under Section 13260 of the CWC.

4.9.3 CDFW Jurisdiction

CDFW jurisdiction at the Project site totals 3.89 acres, of which 2.36 acres consist of riparian stream associated with Alberhill Creek and 0.86 acre consists of a vernal pool that is hydrologically connected to Drainage A. CDFW jurisdiction at the Project site includes Alberhill Creek and 6 ephemeral drainage features (Drainages A – F). These features exhibit flow sign indicators that include break in bank slope, flow patterns, changes in soil characteristics, and water marks. Such features, including features supporting associated riparian habitat, are subject to regulation by the CDFW pursuant to Section 1602 of the Fish and Game Code.

There are also several unmapped features in the upland portion of the Project site for which the widths of their courses cannot reasonably be identified by physical or biological indicators. Areas lacking a defined stream course include topographic features including swales, rills, and erosional areas that do not convey adequate flow sign or a defined bed, bank, and channel. As these areas lack a discernable stream course, they are not subject to regulation by the CDFW under Section 1602 of the Fish and Game Code.

Table 4-6 below summarizes CDFW jurisdictional waters associated with the Project site. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9C].

Table 4-6. CDFW Jurisdiction at the Project Site

Drainage	Non-Riparian Stream (acres)	Riparian Stream (acres)	Total CDFW Jurisdiction (acres)
Alberhill Creek	0	2.36	**2.36**
Drainage A	0.18	0	**0.18**
Drainage B	0.13	0	**0.13**
Drainage C	0.03	0	**0.03**
Drainage D	0.09	0	**0.09**
Drainage E	0.04	0	**0.04**
Drainage F	0.20	0	**0.20**
Vernal Pool 3	0	0.86	**0.86**
Total	**0.67**	**3.22**	**3.89**

4.10 MSHCP Riparian/Riverine Areas and Vernal Pools

4.10.1 Riparian/Riverine Areas

The Project site contains approximately 3.03 acres of MSHCP riparian/areas, including 2.36 acres of riparian habitats associated with Alberhill Creek, and 0.367 acre associated with six drainage features (Drainage A through F). The 2.36 acres associated with Alberhill Creek includes 1.14 acres of Southern Willow Riparian Scrub, 0.73 acre of Alkali Playa. 0.09 acre of Open Water, and 0.40 acre of Semi-Natural Herbaceous Grassland.

Table 4-7. MSHCP Riparian/Riverine Areas at the Project site

Drainage	Riverine (acres)	Riparian (acres)	Total (acres)
Alberhill Creek	0	2.36	**2.36**
Drainage A	0.18	0	**0.18**
Drainage B	0.13	0	**0.13**
Drainage C	0.03	0	**0.03**
Drainage D	0.09	0	**0.09**
Drainage E	0.04	0	**0.04**
Drainage F	0.20	0	**0.20**
Total	**0.67**	**2.36**	**3.03**

The riparian habitat associated with Alberhill Creek provides biological functions for MSHCP Covered Species addressed in *Section 6.1.2* of the MSHCP. As noted above, the least Bell's vireo was detected within Alberhill Creek during focused surveys, and riparian habitat is considered habitat with long-term conservation value pursuant to the MSHCP. In addition, to the vireo, Alberhill Creek supports yellow warbler and yellow-breasted chat, and has the potential to support other riparian birds, although the southwestern willow flycatcher was specifically confirmed absent during focused surveys. The six ephemeral drainage features contain upland vegetation and so have minimal, if any biological function for the MSHCP *Section 6.1.2* species. However, the drainage features provide hydrologic functions as it pertains to downstream resources associated with Alberhill Creek, which is described for conservation by the MSHCP, some of which is proposed as RCA Conserved Land for this Project.

4.10.2 Vernal Pools

As noted above, the Project site contains three areas on the northeastern side of Baker Street that pond seasonally and exhibit the three wetland parameters (hydrophytic vegetation, hydrology and hydric soils) to meet the definition of MSHCP Vernal Pools. These areas are referenced herein as Vernal Pools 1, 2, and 3. Vernal Pools 1 and 2 are in proximity to, but do not directly abut, Alberhill Creek. Vernal Pool 3 is connected to Drainage A, which connects with Alberhill Creek. All three vernal pools are in areas mapped as containing Willows Silty Clay soils [Exhibit 6 – Soils Map]. Each of the vernal pools, as described below, are unique in terms of

their hydrology, soils appearance, relationship to the ecosystem and vegetation assemblage. Table 4-8 summarizes vernal pools at the Project site.

Vernal Pool 1

Based on hydrology data collected during the 2024 rainfall season and a review of aerial imagery for the Project site, Vernal Pool 1 had a maximum ponding surface area of approximately 0.45 acre (1,820 m2). The maximum depth at peak inundation was measured as 18 inches (45 cm), with an average depth estimated as 8 inches (20 cm), and an estimated maximum volume of approximately 0.30-acre-foot (364 m3). The total ponding duration, i.e., the hydroperiod for Vernal Pool 1 in 2024 was approximately 90 days. Table 4-8 below summarizes the existing ponding data for the vernal pools.

Vernal Pool 1is in an area mapped as containing Willow Silty Clay soils (saline-alkali) and the strong alkaline component is evident in the white color of the soils. The main ponding area is generally unvegetated due to the alkalinity; however, the areas surrounding the ponding basin supports species such as salt grass (*Distichlis spicata*), Coulter's goldfields, vernal barley, and San Jacinto Valley crownscale.

Adjacent to the area of Vernal Pool 1, the floodplain of the Alberhill Creek/Collier Marsh bows out and is proximal to the vernal pool, such that it appears that the creek more directly influenced the formation of the vernal pool. Hydrologically, Vernal Pool 1 is supported by direct rainfall supplemented by surface sheet flows (and presumably subsurface flows) from an approximately 6.40-acre watershed (referred to as Watershed C in Appendix H). Appendix H modelled the existing 2-year, 5-year and 10-year storm flows as 4.56 cfs, 6.83 cfs and 9.64 cfs, respectively, and the corresponding 1-hour storm event volumes as 0.11-acre-foot, 0.19-acre-foot and 0.32-acre-foot, respectively. Table 5-5 below summarizes the existing hydrology data.

Vernal Pool 2

In 2024, Vernal Pool 2 had a maximum ponding surface area of approximately 0.41 acre (1,660 m2). The maximum depth at peak inundation was measured as 22 inches (55 cm), with an average depth estimated as 10 inches (25.4 cm), and with an estimated maximum volume of approximately 0.34-acre-foot (422 m3). The hydroperiod for Vernal Pool 2 in 2024 was approximately 95 days. Table 4-8 below summarizes the existing ponding data for the vernal pools.

As with Vernal Pool 1, this vernal pool is in an area mapped as containing Willow Silty Clay soils (saline-alkali). However, Vernal Pool 2 has a different appearance than Vernal Pool 1 in the soils and the resulting vegetative makeup. Although Vernal Pool 2 contains a predominance of hydrophytic vegetation, the vernal pool does not support the robust cover of endemic plant species (e.g., Coulter's goldfields and San Jacinto Valley crownscale) supported in Vernal Pool 1 and Vernal Pool 3. All three vernal pools at the Project site have been disturbed in the past and it is possible that soils underlying Vernal Pool 2 have been modified, possibly with in-fill soils. Regardless, the vernal pool contains a strong alkaline component. A few individuals of Coulter's

goldfields were observed on the edge of the pool; however, the other species associated with Vernal Pools 1 and 3 were not detected in Vernal Pool 2.

Hydrologically, Vernal Pool 2 is supported by direct rainfall supplemented by surface sheet flows (and presumably subsurface flows) from an approximately 27.79-acre watershed (referred to as Watershed B in Appendix H). Appendix E modelled the existing 2-year, 5-year and 10-year storm flows as 31.05 cfs, 31.91 cfs and 45.19 cfs, respectively, and the corresponding 1-hour storm event volumes as 0.48-acre-foot, 0.86-acre-foot and 1.44-acre-foot, respectively. Table 5-5 below summarizes the existing hydrology data.

Vernal Pool 3

In 2024, Vernal Pool 3 had a maximum ponding surface area of approximately 0.86 acre (3,480 m2). The maximum depth at peak inundation was measured as 22 inches (55 cm), with an average depth estimated as 10 inches (25.4 cm), and with an estimated maximum volume of approximately 0.72-acre-foot (884 m3). The hydroperiod for Vernal Pool 3 in 2024 was approximately 110 days. Table 4-8 below summarizes the existing ponding data for the vernal pools.

As with Vernal Pools 1 and 2, this vernal pool is in an area mapped as containing Willow Silty Clay soils (saline-alkali). However, the appearance (color) of the soils associated with Vernal Pool 3 suggests a lesser alkaline component than with Vernal Pool 1, which is also reflected in the denser vegetation within Vernal Pool 3, including a sizeable population of Coulter's goldfields. Additional vernal pool plant species noted in Vernal Pool 3 includes vernal barley and woolly marbles (Psilocarphus brevissimus var. brevissimus) and alkali popcorn flower (Plagiobothrys leptocladus).

Hydrologically, Vernal Pool 3 is different than the other two vernal pools. Drainage A, which itself is supported by a much larger watershed (Watershed D = 217.79 acres), flows into and through the downslope end of the pool. At the downslope end of the pool, the drainage channel takes a sharp turn and the pinch results in the prolonged inundation where the vernal pool and Drainage A overlap. Runoff from Drainage A helps to feed the pool along with runoff from Baker Street, and vertical rainfall falling on the pool and from the immediate watershed. Appendix H modelled the existing 2-year, 5-year and 10-year storm flows as 142.94 cfs, 217.36 cfs and 284.45 cfs, respectively, and the corresponding 1-hour storm event volumes as 9.16-acre-foot, 13.86-acre-foot and 18.09-acre-foot, respectively. Table 4-8 below summarizes the existing hydrology data. As the approximate maximum volume of Vernal Pool 3, based on 2024 inundation, was estimated at 0.72-acre-foot, the much larger volume of water entering the vernal pool system (9.16-acre-foot for a 2-year, 1-hour event) supports the vernal pool. However, most of the water flows out of the pool during relatively larger storm events and as the water in the drainage draws down beyond the pool, the vernal pool itself remains inundated. As such there is an excess of water flowing through the Drainage A system that Vernal Pool 3 is not dependent on.

Table 4-8. MSHCP Vernal Pool Ponding Data

Vernal Pool	Ponding Surface Area (acres)	Maximum Observed Depth (inches)	Estimated Average Depth (inches)	Pool Volume (acre-foot)
1	0.45	18	8	0.30
2	0.41	22	10	0.34
3	0.86	22	10	0.72
Total	**1.72**			

4.10.3 Fairy Shrimp

As noted above, no listed fairy shrimp were detected in the four seasonal ponds that were surveys, including the three vernal pools.

Dry Season Surveys

Cysts belonging to the genus *Branchinecta* were isolated from soil samples in Pools 1, 2 and 3, but not from Pool 4. Adult *B. lindahli* were reared from cultures in Pools 1, 2 and 3. No suspected hybrids between *B. lindahli* and the federally listed *B. sandiegonensis* were identified.

Wet Season Surveys

The versatile fairy shrimp (*B. lindahli*) was detected in Pools 1, 2 and 3, but not in Pool 4. These results are consistent with the findings of the preceding dry season surveys.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not related to the direct impacts of a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project but occur at a different time or place than the direct impacts. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other offsite areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets;

competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by non-native invasive species, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

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

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a

> fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ...

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

With respect to biological resources, Appendix G of the State CEQA Guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
>
> b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
>
> c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
>
> d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
>
> e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
>
> f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Special-Status Species

As stated above, Appendix G of the CEQA Guidelines asks if a project is likely to "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service."

5.2.1 Special-Status Plants

The proposed Project will impact the following special-status plant species based on the results of focused plant surveys: San Diego ambrosia, Coulter's goldfields, San Jacinto Valley crownscale, vernal barley, small-flowered microseris.

San Diego Ambrosia

The Project will impact San Diego ambrosia in several locations, including in the southern portion of the Industrial footprint (onsite) and within the proposed offsite road improvements along Pierce Street and Nichols Road. Because the Project site is within the NEPSSA for San Diego ambrosia, the Project is required by the MSHCP to identify habitat with long-term conservation value for the species and to avoid at least 90 percent of the habitat. GLA has identified 0.44 acre of habitat with long-term conservation value for the ambrosia within the Project footprint, all of which will be impacted by the Project. These impacts to San Diego ambrosia would be considered substantial and adverse, and therefore potentially significant prior to mitigation. The Project will mitigate the impacts to San Diego ambrosia by restoring 1.32 acres of habitat within the RCA Conserved Lands and translocating San Diego ambrosia individuals from the disturbance limits to the restoration area. The mitigation is further described below in Section 6.0 of this report and will ensure no net loss of San Diego ambrosia habitat. In addition, the San Diego ambrosia is a federal endangered species. As the ambrosia is a MSHCP Covered Species, take is authorized provided that the Project is compliant with MSHCP *Section 6.1.3*, which requires that the Project provide mitigation for the unavoidable impacts to demonstrate that the Project is "biologically equivalent or superior" compared with the avoidance. As such, a DBESP must be approved by the Wildlife Agencies (USFWS and CDFW). With the implementation of mitigation, impacts to San Diego ambrosia would be reduced below a level of significance.

Coulter's Goldfields

The Project will impact Coulter's goldfields associated with the one of the vernal pools adjacent to the proposed Baker Street improvements, which include the proposed storm drain outlets and proposed maintenance area. Because the Project site is within the CAPSSA for Coulter's goldfields, the Project is required by the MSHCP to identify habitat with long-term conservation value for the species and to avoid at least 90-percent of the habitat. GLA has identified 2.70 acres of habitat with long-term conservation value for Coulter's goldfields associated with the Project site, including 2.61 acres associated with the three vernal pools. The proposed Project will directly impact 0.50 acre of the habitat (20 percent) of the habitat at the edge of one of the vernal pools. These impacts to Coulter's goldfields would be considered substantial and adverse, and therefore potentially significant prior to mitigation. Pursuant to MSHCP *Section 6.3.2,* the Project must provide mitigation for the unavoidable impacts to Coulter's Goldfields to demonstrate that the Project is "biologically equivalent or superior" compared with the avoidance. As such, a DBESP must be approved by the Wildlife Agencies. The Project will mitigate the impacts to Coulter's goldfields by restoring 1.50 acres of habitat within the RCA Conserved Lands and transferring seed to the restoration area. The mitigation is further described below in Section 6.0 of this report and will ensure no net loss of Coulter's goldfields. With the

implementation of the mitigation, impacts to Coulter's goldfields would be reduced below a level of significance.

San Jacinto Valley Crownscale

The Project will impact individuals of San Jacinto Valley crownscale in the vicinity of Vernal Pool 1 as a result of proposed improvements to Baker Street and associated maintenance. The San Jacinto Valley crownscale is a federal endangered species. These impacts to crownscale are potentially substantial and adverse, and therefore the impacts are considered potentially significant prior to mitigation. However, the crownscale is a MSHCP Covered Species, and although the crownscale is a Criteria Area Plant Species, the Project site is not within the Survey Area for crownscale. Therefore, the impacts to crownscale are covered by the MSHCP, and as such the Project is not required to mitigate for the crownscale impacts. With the coverage afforded by the MSHCP, and with the Project's general compliance with the MSHCP, impacts to the crownscale will be reduced to below a level of significance.

Vernal Barley

The Project will impact a portion of the vernal barley population associated with Vernal Pool 3. These impacts are potentially substantial and adverse, and therefore the impacts are considered as potentially significant prior to mitigation. However, vernal barley is a MSHCP Covered Species but is not a Narrow Endemic Plant or Criteria Area Plant. As such, the Project is not required to mitigate for the impacts to vernal barley as a species, although vernal barley may be included in mitigation addressing impacts to the vernal pool as a whole and the other associated species, including Coulter's goldfields. With the coverage afforded by the MSHCP, and with the Project's general compliance with the MSHCP, impacts to vernal barley will be reduced to below a level of significance.

Small-Flowered Microseris

The individuals of small-flowered microseris that were mapped during focused plant surveys were located on the northern edge of Vernal Pool 2 and would not be impacted by the Project. Small flowered microseris is not a Narrow Endemic Plant or Criteria Area Plant. As such, the Project is not required to mitigate for the impacts to small flowered microseris.

Little Mousetail

Based on the above-noted public record for little mousetail, the Project might impact the mousetail, although species was not detected during focused plant surveys. If the mousetail is located in Vernal Pool 3, then impacts might occur resulting from the 0.16 acre of direct impact along the edge of the pool. Pursuant to MSHCP *Section 6.3.2* the Project must provide mitigation for the unavoidable impacts to demonstrate that the Project is "biologically equivalent or superior" compared with the avoidance. As such, a DBESP must be approved by the Wildlife Agencies. With the implementation of mitigation, impacts to little mousetail would be reduced

below a level of significance. The proposed mitigation is described below in Section 6.0 of this report.

5.2.2 Special-Status Animals

The proposed Project will remove habitat with the potential to support a number of special-status species, including invertebrates, amphibians, reptiles, birds, and small mammals. Except for impacts to Crotch's bumble bee (see below for separate discussion), none of the impacts to special-status animals will require mitigation either because the species are covered by the MSHCP coverage or because no mitigation would be warranted relative to the impacts. This section is organized to address special-status species by habitat type.

Riparian Habitats

The Project site contains riparian habitat associated with Alberhill Creek, and as noted above in Section 4.5, the habitat supports a number of special-status species, including least Bell's vireo, yellow warbler, yellow-breasted chat, and other species associated with Alberhill Creek and Collier Marsh. As part of the proposed RCA Conserved Lands, the Project will conserve the riparian habitat within the Project site. At the existing Nichols Road crossing of the creek, riparian habitat is located on either side of the road and the canopy overhangs the road slightly. However, Nichols Road is not proposed to be widened at this location, and improvements are expected to be limited to re-surfacing and re-striping. As such, the removal of riparian habitat is not expected as part of this Project.

Vernal Pools

As noted above, the Project site contains three vernal pools that are located within the proposed RCA Conserved Lands adjacent to the Baker Street improvements. Vernal Pool 1 will be avoided by the Project; however, the Project will partially impact Vernal Pool 2 (0.01 acre) and Vernal Pool 3 (0.16 acre). One special-status animal species (western spadefoot) was detected in all three vernal pools. Western spadefoot is a MSHCP Covered Species without species-specific survey/mitigation requirements, although it is a species that benefits from the MSHCP *Section 6.1.2* policies. The Project will have limited direct impacts to Vernal Pools 2 and 3, with the majority of both avoided within the RCA Conserved Lands, and as described below, the impacts to the two vernal pools will be mitigated by expanding the ponding basins of the vernal pools within the RCA Conserved Lands. As such, the Project will preserve nearly all of the existing western spadefoot breeding habitat between the three vernal pools and will ultimately increase the overall amount of breeding habitat through the proposed mitigation. Although it is not known where the adult spadefoots reside underground outside of the breeding season, it is probable that one or more male and/or female spadefoots reside with the Project's disturbance limits based on the proximity to the pools and the suitability of upland habitat. The collective loss of breeding habitat and potential upland refugia for the spadefoots would be potentially significant prior to mitigation. Because the spadefoot is a MSHCP Covered Species and does not have project-specific mitigation requirements, the Project is not required to mitigate for the loss of breeding habitat or potential upland habitat (except that the vernal pool impacts themselves require mitigation). Therefore, with the proposed vernal pool mitigation (pursuant to the MSHCP

Section 6.1.2 policies) and additional coverage afforded by the MSHCP, impacts to western spadefoot would be reduced to below a level of significance.

However, because the vernal pools are located within the RCA Conserved Lands, and because of the potential for adult spadefoots to aestivate within the Project's development footprint, the RCA via their MSHCP Joint Project Review (JPR) Findings is requiring avoidance/minimization measures to attempt exclusion of adult spadefoots from the development footprint, with the transfer of any collected spadefoots to the vernal pools within the Conserved Lands. The avoidance/minimization measures are provided below in Section 6.0.

Grasslands and Scrub Habitats

The Project has the potential to impact multiple special-status species associated with the upland grassland and scrub habitats, including several lizards and snakes (California glossy snake, coastal whiptail, coast horned lizard, coast patch-nosed snake, orangethroat whiptail, red-diamond rattlesnake and San Bernardino ringneck snake), birds (Bell's sage sparrow, loggerhead shrike and Southern California rufous-crowned sparrow) and several small mammals (Dulzura pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, southern grasshopper mouse, San Diego desert woodrat and Stephens' kangaroo rat). Of these species, only the San Diego black-tailed jackrabbit was detected incidentally while conducting other surveys. The other species were not detected, but focused surveys were not conducted for these species, either because there are no survey protocols for the species, or surveys were not required by the MSHCP. The Project would remove approximately 70 acres live-in habitat that could collectively support each species, if present, including habitat supporting breeding and foraging.

Of these species, only Stephens' kangaroo rat (SKR) is listed. SKR is a federal endangered and state threatened species; however, the potential take of SKR is covered pursuant to the SKR HCP. The loss of habitat for SKR would be potentially significant prior to mitigation; however, pursuant to the SKR HCP, the Project site is within the SKR Fee Assessment Area, and all projects are required to pay the SKR development fees regardless of whether SKR is present or absent. As such, any impacts to SKR are covered through payment of the SKR fee, and this mitigation would reduce any impacts to below a level of significance.

Of the remaining non-listed species, the California glossy snake, coast patch-nosed snake, San Bernardino ringneck snake, Dulzura pocket mouse and southern grasshopper mouse are not MSHCP Covered Species. Each of these species are generally associated with grasslands and/or scrub habitats, and therefore have some potential to occur, although the potential for occurrence is limited since these species are more commonly associated with dry washes and the vegetation communities that adjoin such areas. Given the limited potential for occurrence and the relatively low sensitivity of these species, impacts to these species are expected to be less than significant. Regardless, the Project's proposed RCA Conserved Lands contain grasslands, and the Project will contribute to MSHCP development fees, which will further support similar habitat types within the MSHCP Plan Area for these species.

Of the non-listed MSHCP Covered Species with the potential to occur (California glossy snake, coastal whiptail, coast-horned lizard, orangethroat whiptail, red-diamond rattlesnake, Bell's sage sparrow, loggerhead shrike, Southern California rufous-crowned sparrow, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and San Diego desert woodrat), with the Project's general compliance with the MSHCP, impacts to these special-status animals will be reduced to below a level of significance.

Crotch's Bumble Bee

Based on the detection of Crotch's bumble bee (CBB) at the Project site in 2024, the Project will remove vegetation (Riversidean sage scrub and grassland) containing floral resources that supported CBB for foraging during the 2024 Colony Active Period and that could support foraging during future seasons. The underlying substrate within scrub and grassland habitats also have the potential to support nesting and/or overwintering uses. However, because CBB is an annual species with no affinity to foraging habitat, nests and/or overwintering habitat used by other bumble bees during prior seasons, it is not possible to predict with any certainty, whether CBB individuals could utilize portions of the Project site from one season to the next, and therefore, there is no certainty that CBB individuals could be present at the Project site when Project activities are occurring. That GLA did not detect CBB at the Project site during the 2025 focused surveys highlights that fact. If CBB individuals are not within the Project site when construction activities are removing habitat, then there would no potential for "take" under CESA, as habitat removal does itself constitute "take". However, CBB is not a MSHCP Covered Species, and therefore, the MSHCP does not provide "take" coverage for the species. If "take" of CBB individuals occurs, an Incidental Take Permit (ITP) from CDFW would be required.

Including the scrub and grassland habitats within the proposed development footprint, the Project will impact 73.41 acres of vegetation communities intermixed with floral resources that could support foraging CBB individuals. However, during the 2024 surveys, CBB individuals were observed foraging in just a subset of the overall area. Furthermore, the entirety of the vegetation communities is not covered with the blooming plants capable of supporting CBB foraging in any given season. Instead, only a subset of the total habitat acreage could support CBB uses in any given season. In 2024, GLA's biologists observed CBB individuals concentrated in no more than 20 to 30 acres of the habitat. In addition, the scrub and grasslands have the potential to be used for colony nesting and/or overwintering, although this was not observed. However, any given nest and/or overwintering area would represent very small areas, and collectively, if multiple were within the site, would represent a small acreage of use. Impacts to CBB, i.e. the loss of habitat based on the 2024 survey results, could be potentially significant without mitigation. Although CBB is not a MSHCP Covered Species, the conservation lands that comprise the MSHCP Reserve include habitat suitable to support CBB on a regional level, including coastal sage scrub and grasslands. The base (existing) conservation within the MSHCP Reserve, i.e., within the PQP Conserved Lands, included over 34,500 acres of coastal sage scrub and over 22,500 acres of grasslands. In addition, since the adoption of the MSHCP, over 17,000 acres of coastal sage scrub and over 6,700 acres of grasslands have been added to the MSHCP Reserve as ARL. Per Table 5-1 and 5-2 above, the Project will conserve 25.58 acres of grassland. In comparison, the 73.41 acres of Riversidean sage scrub (i.e., coastal sage scrub) and grassland to be impacted by the Project are not within areas described for conservation by the MSHCP, i.e.,

those areas are not needed to support the MSHCP goals for conserving coastal sage scrub and grassland. Furthermore, the Project will pay its required contribution of MSHCP development fees. As such, the combination of the Project's conservation of 33.66 acres (including 25.58 acres of grassland), payment of MSHCP development fees, and overall consistency with MSHCP requirements, will mitigate the loss of habitat for CBB below a level of significance.

5.3 Sensitive Vegetation Communities

Appendix G of the CEQA Guidelines requires an analysis regarding whether a project is likely to "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service." The majority of Project impacts will occur to disturbed/developed areas or upland vegetation communities that are not sensitive. The Project will impact 0.17 acre of vernal pool habitat (a portion of Vernal Pool 2 and Vernal Pool 3) as well as 0.46 acre of alkali grassland that supports rare plants (Coulter's goldfields, San Jacinto Valley crownscale, vernal barley and small-flowered microseris). Table 5-1 and 5-2 summarizes impacts to vegetation communities, by Project component, with Table 5-1 providing a breakdown of communities within Criteria Cells and Table 5-2 summarizing areas outside Criteria Cells.

Table 5-1. Vegetation/Land Use Impacts Inside Criteria Cells

	Impacted				**Avoided**	
Vegetation/Land Use Type	**Industrial Project – Onsite (acres)**	**Baker Street – Offsite (acres)**	**City Maintenance Area (acres)**	**Additional Street Improvements (acres)**	**RCA Conserved Lands (acres)**	**Total Acreage**
Alkali Grassland	0.00	0.07	0.39	0.00	3.13	**3.59**
Alkali Playa	0.00	0.00	0.00	0.00	0.73	**0.73**
Disturbed/Developed	1.27	1.48	0.22	15.61	1.50	**20.08**
Open Water	0.00	0.00	0.00	0.00	0.09	**0.09**
Riversidean Sage Scrub	2.42	0.04	0.00	0.03	0.00	**2.49**
Semi-Natural Herbaceous Grassland	18.63	0.14	0.17	0.40	19.54	**38.88**
Disturbed Semi-Natural Herbaceous Grassland	11.93	2.72	1.49	0.20	4.38	**20.72**
Southern Willow Scrub	0.00	0.00	0.00	0.06	1.08	**1.14**
Vernal Pool	0.00	0.00	0.17	0.00	1.55	**1.72**
Total	**34.25**	**4.45**	**2.44**	**16.30**	**32.00**	**89.44**

Table 5-2. Vegetation/Land Use Impacts Outside Criteria Cells

	Impacted				Avoided	
Vegetation/Land Use Type	**Industrial Project – Onsite (acres)**	**Baker Street – Offsite (acres)**	**City Maintenance Area (acres)**	**Additional Street Improvements (acres)**	**RCA Conserved Lands (acres)**	**Total Acreage**
Alkali Grassland	0	0	0	0	0	**0**
Alkali Playa	0	0	0	0	0	**0**
Disturbed/Developed	0.44	0.80	0	9.38	0	**10.62**
Open Water	0	0	0	0	0	**0**
Riversidean Sage Scrub	0.47	0.05	0	0	0	**0.52**
Semi-Natural Herbaceous Grassland	27.11	0.73	0.29	1.05	1.66	**30.84**
Disturbed Semi-Natural Herbaceous Grassland	3.54	0.08	0	0.97	0	**4.59**
Southern Willow Scrub	0	0	0	0	0	**0**
Vernal Pool	0	0	0	0	0	**0**
Total	**31.56**	**1.66**	**0.29**	**11.40**	**1.66**	**46.57**

The impacts to the vernal pool and alkali grassland habitat supporting the rare plants would be potentially significant prior to mitigation. The Project will mitigate the impacts to Vernal Pool 2 (0.01 acre) and Vernal Pool 3 (0.16 acre) by expanding each pool within the RCA Conserved Lands. Vernal Pool 2 would be expanded by 0.03 acre and Vernal Pool 3 would be expanded by 0.48 acre, ensuring no net loss of vernal pools. Also, with mitigation that is discussed below in Section 6.0, impacts to sensitive vegetation communities would be reduced to below a level of significance.

5.4 Wetlands

Appendix G of the State CEQA Guidelines requires an analysis regarding whether a project is likely to "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

The Project will impact 0.17 acre of wetlands associated with vernal pools, specifically 0.01 acre of Vernal Pool 2 and 0.016 acre of Vernal Pool 3. The vernal pools are jurisdictional to the Regional Board and also have avoidance/mitigation requirements pursuant to the MSHCP *Section 6.1.2* policies. Impacts to the vernal pool wetlands would be potentially significant prior to mitigation. The Project will mitigate the impacts to Vernal Pool 2 (0.01 acre) and Vernal Pool 3 (0.16 acre) by expanding each pool within the RCA Conserved Lands. Vernal Pool 2 would be expanded by 0.03 acre and Vernal Pool 3 would be expanded by 0.48 acre, ensuring no net loss

of wetlands associated with the vernal pools. With the mitigation that is discussed below in Section 6.0, impacts to the wetlands would be reduced to below a level of significance.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Appendix G of the State CEQA Guidelines requires an analysis regarding whether a project is likely to "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites."

The Project site will not interfere substantially with the movement of any native resident or migratory fish or wildlife species. As discussed above in Section 4.7, the Project's development footprint will affect local wildlife movement but will not adversely affect a MSHCP Linkage. Instead, the Project will support the MSHCP goals for regional wildlife movement by conserving lands that will contribute to a MSHCP Linkage. Lands described for conservation in Cell 4166 (the northeastern part of the Cell) will contribute to the assembly of Proposed Linkage 2, which represents habitat comprised of Collier Marsh and Temescal Creek. The proposed Project will not impact Alberhill Creek/Collier Marsh, and the Linkage functions associated with the Linkage. In fact, the Project is conserving lands that include the creek/marsh and also includes adjacent lands that are not described for conservation that will buffer the open space from the Project.

The Project will not impede the use of native wildlife nursery sites. The proposed development footprint does not support any colonial breeding groups that would be considered as a native wildlife nursery site per the CEQA threshold. The Project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to September 15). Impacts to nesting birds are prohibited by the California Fish and Game Code.

Although impacts to native birds are prohibited by the California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are extremely common to the region and highly adapted to human landscapes (e.g., house finch, killdeer). The number of individuals potentially affected by the Project would not significantly affect regional, let alone local populations of such species. A measure is identified in Section 6.0 of this report to avoid impacts to nesting birds, consistent with the California Fish and Game Code.

5.6 Local Policies or Ordinances

Appendix G of the State CEQA Guidelines requires an analysis regarding whether a project is likely to "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance." The Project will not conflict with any local policies or ordinances protecting biological resources. This includes Chapters 16.85 (Local Development Mitigation Fee for Funding the Preservation of Natural Ecosystems) and Chapter 19.04 (Habitat Conservation) of the Municipal Code[9]. In both cases, compliance with the MSHCP (and locally the City's Lake Elsinore Area Plan [LEAP] requirements) either supersedes these Municipal

[9] Lake Elsinore Municipal Code, 1987.

Code provisions or concurrently satisfies these provisions, by addressing fees, biological reporting, and other local requirements.

5.7 Habitat Conservation Plans

Appendix G of the State CEQA Guidelines requires an analysis regarding whether a project is likely to "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan." As discussed throughout this report, the Project is within the Western Riverside County MSHCP. Section 7.0 of this report summarizes compliance of the Project with the Reserve Assembly and species/habitat requirements of the MSHCP. Through compliance with the applicable requirements, the Project will not conflict with the provisions of the MSHCP.

5.8 Jurisdictional Waters

The Project, as designed, will impact jurisdictional waters, including approximately 0.64 acre of Regional Board jurisdiction and 0.66 acre of CDFW jurisdiction. Regional Board jurisdictional impacts consist of 0.47 acre of non-wetland waters associated with five of the ephemeral drainage features and 0.17 acre of wetlands associated with the edge of Vernal Pool 2 (0.01 acre) and Vernal Pool 3 (0.16 acre). Impacts to CDFW jurisdiction consist of 0.50 acre of non-riparian stream and 0.16 acre of Vernal Pool 3. Table 5-3 summarizes Regional Board jurisdictional impacts and Table 5-4 summarizes CDFW jurisdictional impacts.

Table 5-3. Impacts to Regional Board Jurisdiction

Drainage	Non-Wetland Waters (acres)	Wetlands (acres)	Total Impacts (acres)	Length (linear feet)
Drainage A	0.04	0	**0.04**	915
Drainage B	0.13	0	**0.13**	716
Drainage C	0.03	0	**0.03**	638
Drainage D	0.07	0	**0.07**	899
Drainage F	0.20	0	**0.20**	1480
Vernal Pools 2 and 3	0	0.17	**0.17**	N/A
Total	**0.47**	**0.17**	**0.64**	**4648**

Table 5-4. Impacts to CDFW Jurisdiction

Drainage	Non-Riparian Stream (acres)	Riparian Stream (acres)	Total Impacts (acres)	Length (linear feet)
Drainage A	0.05	0	**0.05**	915
Drainage B	0.13	0	**0.13**	716
Drainage C	0.03	0	**0.03**	638
Drainage D	0.09	0	**0.07**	899
Drainage F	0.20	0	**0.20**	1480
Seasonal Pond 3	0	0.16	**0.16**	N/A
Total	**0.50**	**0.16**	**0.66**	**4648**

It is not expected for any of the above-referenced features to be jurisdictional to the Corps; however, an Approved Jurisdictional Determination (AJD) would be required by the Corps to affirm that position. Assuming that the Project will not impact Corps jurisdiction, then a Clean Water Act Section 404 permit will not be required.

Impacts to Regional Board jurisdiction will require only a Waste Discharge Requirement, assuming that a Section 404 permit is not needed from the Corps. Impacts to CDFW jurisdiction will require a Lake and Streambed Alteration Agreement. Mitigation for impacts to jurisdictional waters is described below in Section 6.0.

5.9 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space.

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 measures consistent with the MSHCP guidelines to address the following:

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

The following sections discuss the MSHCP Urban/Wildlands Interface Guidelines.

5.9.1 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 has been designed so that the post-Project hydrology relative to the offsite RCA Conserved Lands will mimic the existing conditions. This section summarizes data from the Project's Hydrology Memorandum [Appendix G] and determines that the Project will maintain the hydrology needed to support Vernal Pools 1, 2 and 3, including the proposed expansion of Vernal Pools 2 and 3 (described below in Section 6.3). The Project will retain all dry weather nuisance flows such that no water will be released to the vernal pools outside of storm flows and beyond the rainy season. As such, the Project will not extend the hydroperiod of the vernal pools beyond the that which is the result of natural hydrology. As discussed below, the Project will result in a hydrologic increase to the watersheds of all three vernal pools for individual storm events, but the increases are small relative to the existing volumes of each vernal pool, and these increases will not extend the hydroperiod such that it would change the vernal pools to a wetter habitat type, such as marsh. Furthermore, expanding the vernal pools for mitigation purposes will not decrease the hydrology of the vernal pools.

The Project is part of the overall watershed for Alberhill Creek/Temescal Wash. Appendix G describes the Project site as being part of four smaller drainage areas (Watersheds A, B, C and D) that each drain a specific area. Appendix B (Rational Method) and Appendix C (Unit Hydrograph) of the Hydrology Memorandum depicts the existing hydrology condition relative to the four watersheds, whereas Appendix D and Appendix E of the Hydrology Memorandum depicts the proposed condition.

As discussed below, three of these watersheds each contain one of the three vernal pools that are described above. Each of these smaller watersheds are described below in detail, including the acreage of each watershed in the existing condition and proposed condition, the flows and volumes associated with each watershed for the 2-, 5-, and 10-year rainfall events, and the resources that each watershed drains towards. The Hydrology Memorandum evaluates the potential hydrologic effects of the Project on the vernal pools and associated plant resources, and Alberhill Creek by modelling the flow rates and volumes for the same rainfall events after Project implementation. The goal of the Project is to ensure that the same or similar amounts of

water reach the adjacent RCA Conserved Lands to mimic the existing condition. However, through the modification of the site drainage, the four watersheds vary from the existing condition where the water is drawn from that feeds the different portions of the RCA Conserved Lands adjacent to the Project. For example, the sheet flows from Watershed C in the existing condition that originates from direct rainfall onto the site and flows towards Vernal Pool 1 will, in the post-Project condition, drain towards Vernal Pool 3. To mimic the existing hydrologic condition for Vernal Pool 1, the water draining into the modified Vernal Pool 1 watershed will come entirely from the improved sections of Pierce Street and Baker Street utilizing a trough system discussed below to disseminate flows and to re-create what came from the original Watershed C. The proposed condition is provided in Appendix D and E of the Hydrology Memorandum.

The individual watersheds are discussed below in order of the vernal pools supported by those watersheds, followed by Watershed A, which does not support a specific vernal pool but instead any concentrated drainage flows, or sheet flows extend offsite towards the Alberhill Creek floodplain. Table 5-6, which follows the discussions of each of the vernal pools and watersheds below, provides a comparison of existing and proposed hydrologic conditions for each area.

Vernal Pool 1 (Watershed C) – Watershed C is located north of Watershed B and south of Watershed D. Watershed C comprises 6.40 acres, nearly all of which is contained within the Project site. Vernal Pool 1 is within Watershed C. The watershed begins at the top of a hill and then flattens out as it approaches Baker Street. Sheet flows from the watershed slow down as the flows reach the flatter area, with some proportion of the flows reaching and crossing over Baker Street, some flows percolating into the ground and continuing subsurface under Baker Street towards the vernal pool, and perhaps some of the water not reaching the vernal pool. The amount and proportion of water reaching the vernal pool likely varies depending on the level of each storm event. As with the other two vernal pools, Vernal Pool 1 relies heavily on direct vertical rainfall for the pool to inundate; however, because Vernal Pool 1 does not receive the stream input that Vernal Pool 3 receives from Drainage A, Vernal Pool 1 takes longer to fill and reach its maximum inundation, at least during lesser rainfall events. During the 2024 monitoring/surveys, Vernal Pool 3 was already near maximum inundation during the first fairy shrimp sampling on January 26, 2024, whereas Vernal Pool 1 had no inundation. One week later, following additional rainfall, Vernal Pool 1 was inundated to approximately three percent of its maximum inundation, and then another week later (after more rainfall) Vernal Pool 1 reached maximum inundation.

The modified watershed supporting Vernal Pool 1 will be increased to 7.28 acres. As described above, the Project will create trough systems on the northern side of Baker Street that will release water from the Project's BMP structures as sheet flows towards the vernal pools. As concentrated flows leave each pipe from the BMP structures, the flows will hit the splash wall of the trough and spread out across the entire length of the trough system. The northern side of the trough system will have six-inch openings every five feet that will create the sheet flow condition towards the vernal pool. In the proposed condition, the flow rates at the outfall to the trough structure will increase for each of the three rainfall events modelled:

- 2-year event – 4.56 cfs to 5.42 cfs (19 percent increase)

- 5-year event – 6.83 cfs to 7.77 cfs (14 percent increase)
- 10-year event – 9.64 cfs to 10.04 cfs (4 percent increase)

Appendix G also modelled volumes as follows:

- 2-year event – 0.11 acre-foot to 0.17 acre-foot (55 percent increase)
- 5-year event – 0.19 acre-foot to 0.25 acre-foot (32 percent increase)
- 10-year event – 0.32 acre-foot to 0.35 acre-foot (9 percent increase)

The increase in flows and volumes per rainfall event is not expected to adversely affect Vernal Pool 1. Although the modeling for the post-Project condition reflects, in some cases, large percent increases, it is the relative hydrology numbers that are important. For example, the 55-percent increase in runoff volume for a 2-year event reflects just a 0.06-acre-foot increase. As noted above, the maximum volume of the pool was estimated as 0.30 acre-foot in 2024. An increase in volume output as documented above might help the pool to fill up faster depending on the rainfall season and could result in a slight expansion of the ponded surface area. However, the topography around Vernal Pool 1 is very flat and the increase in the volume for any given event would not appreciably increase the ponding duration of the pool to the point at which habitat conversion could occur, e.g., converting from a seasonal pool to a marsh. As noted above, in 2024 the Vernal Pool 1 hydroperiod was approximately 90 days, with the pool drying up in early May. The Project will not decrease the hydrology to the vernal pool and therefore the Project will not reduce the hydroperiod for Vernal Pool 1. Furthermore, the Project will not release dry weather nuisance flows from the site. As such, the Project will not release water outside which would be generated by rainfall events and therefore will not increase the Vernal Pool 1 hydroperiod that could otherwise be caused by the release of non-seasonal flows. Lastly, water retained in the Project's BMP structures will be released within 24 hours, such that the Project will not increase the duration of sheet flows entering Vernal Pool 1.

Vernal Pool 2 (Watershed B) – Watershed B is located north of Watershed A and has an existing-condition tributary of approximately 27.79 acres. Watershed B originates offsite to the southwest although the majority of the watershed is onsite. Sheet flows from the watershed cross Baker Street and contribute to the hydrology of Vernal Pool 2. In the proposed condition, the Project will increase the total watershed acreage slightly to 28.54 acres. Once the sheet flows are collected and treated via BMPs, they will be discharged into the proposed trough system. As concentrated flows leave each pipe from the BMP structures, the flows will hit the splash wall of the trough and spread out across the entire length of the trough system. The northern side of the trough system will have six-inch openings every five feet that will help create a sheet flow condition towards Vernal Pool 2 that mimics existing conditions. In the proposed condition, the flow rates at the outfall to the trough structure will increase for each of the three rainfall events modelled:

- 2-year event – 21.05 cfs to 25.28 cfs (20 percent increase)
- 5-year event – 31.91 cfs to 36.50 cfs (14 percent increase)
- 10-year event – 45.19 cfs to 47.41 cfs (5 percent increase)

Appendix G also modelled volumes as follows:

- 2-year event – 0.48 acre-foot to 0.70 acre-foot (46 percent increase)
- 5-year event – 0.86 acre-foot to 1.04 acre-foot (21 percent increase)
- 10-year event – 1.44 acre-foot to 1.52 acre-foot (6 percent increase)

As was discussed above, the estimated maximum volume of Vernal Pool 2 as observed in 2024 was 0.34 acre-foot. Permanent impacts to 0.01 acre of the pool will remove approximately 0.01 acre-foot of pool volume. The proposed expansion of the pool by 0.03 acre will add approximately 0.03 acre-foot of volume, for a net increase of the total volume from 0.34 acre-foot to 0.36 acre-foot. Under the existing condition in a 2-year event, Watershed B generates 0.48 acre-foot of volume on the northern side of Baker Street facing Vernal Pool 2, but the maximum capacity of the vernal pool is about 0.34 acre-foot such that the balance of water from the watershed does not contribute to the vernal pool. Although the 2-year-event volume would increase to 0.70-acre-foot post-Project, similarly any water more than the capacity of the pool would sheet flow offsite and would not contribute to the vernal pool. The increase might allow for the pool to fill faster but would not extend the vernal pool hydroperiod of a duration that would adversely affect the pool. As noted above, in 2024 Vernal Pool 2 was inundated for a duration of approximately 95 days, with the pool drying up in early May. The Project will not decrease the hydrology for Watershed B and therefore the Project will not reduce the duration of ponding for Vernal Pool 2. Furthermore, the Project will not release dry weather nuisance flows from the site. As such, the Project will not release water outside which would be generated by rainfall events and therefore will not increase the ponding duration of Vernal Pool 2 that could otherwise be caused by the release of non-seasonal flows. Lastly, water retained in the Project's BMP structures will be released within 24 hours, such that the Project will not increase the duration of sheet flows entering Vernal Pool 2.

Vernal Pool 3 (Watershed D) – Watershed D is located on the northwestern part of the Project and has an existing-condition tributary of approximately 217.79 acres, corresponding with Drainages A, B and C described above. The portion of the watershed feeding Drainage A originates offsite from a basin at the Terracina development tract that flows into an offsite portion of Drainage A, conveying flows towards and through the Project site before entering Vernal Pool 3 on the northern side of Baker Street. Flows feeding Drainage B onsite become sheet flows that cross Baker Street in the RCA Conserved Lands located west of Vernal Pool 3. Flows feeding Drainage C also enter Vernal Pool 3 after crossing Baker through a separate culvert pipe.

In the proposed condition, the Project will increase the total watershed acreage slightly to 219.64 acres. Flows originating offsite from the Terracina tract will enter a proposed debris basin at the western edge of the Project site and then flow through the Project site through a public storm drain that discharges into a separate trough system that is like what is described above for Watersheds C and B (Vernal Pools 1 and 2). The trough system will also accept onsite runoff generated within the watershed. This separate trough system will mimic the existing condition flows to Vernal Pool 3 by providing the supportive sheet flow. The trough system is designed to let larger flows during high storm events continue down the existing flowline that leads to Alberhill Creek/Temescal Wash, while still returning concentrated flows to sheet flow during

smaller storm events. In the proposed condition, the flow rates at the outfall to the trough structure will increase for each of the three rainfall events modelled:

- 2-year event – 142.94 cfs to 148.75 cfs (1 percent increase)
- 5-year event – 217.36 cfs to 223.61 cfs (1 percent increase)
- 10-year event – 284.45 cfs to 287.20 cfs (1 percent increase)

Appendix G also modelled volumes as follows:

- 2-year event – 9.16 acre-foot to 9.25 acre-foot (1 percent increase)
- 5-year event – 13.86 acre-foot to 14.09 acre-foot (1 percent increase)
- 10-year event – 18.09 acre-foot to 18.18 acre-foot (1 percent increase)

The Project design will mimic the current hydrology for the Vernal Pool 3 watershed very closely, with post-Project metrics of flow rates and volume demonstrating a one percent increase for all storm events modelled. As discussed above, the estimated maximum volume of Vernal Pool 3 as observed in 2024 was 0.72 acre-foot and the Project will permanently impact 0.16 acre of the pool along the southern edge. The sloping from the edge of the ponding basin to the middle of the pool is gradual and assuming an average depth of 5 inches (13 inches) within the 0.16-acre impact area, the impact will remove (fill) approximately 0.07 acre-foot of pool volume. As noted above, the Project would replace the 0.16 acre of lost ponding area by expanding the pool by an additional 0.48 acre, such that there would be 0.70 acre of additional pool surface area for a total of 1.18 acres of vernal pool area. In creating additional surface area, the goal is to at least replace the 0.07 acre-foot of lost volume within the proposed expansion areas. As the expansion areas would be around the edges of the existing ponding basin, the average depth of those areas would be shallower, perhaps three inches of depth on average. However, increasing the overall volume of the vernal pool would also be feasible with the post-Project hydrology, since the volume of water released at the spreading trough would still be significantly larger than the pool volume, i.e., increasing the size of Vernal Pool 3 would not cause the pool to be relatively drier. For example, the existing condition volume for a 2-year event is modeled as 9.16 acre-foot, which is more than 12 times the volume of pool, as estimated based on 2024 hydrology. Through adjustments to where Drainage A exits the vernal pool, the natural release of water could be set to accommodate the desired pool volume for the expanded pool. The hydroperiod for Vernal Pool 3 in 2024 was approximately 110 days, and as the post-Project hydrology is modeled at just a 1-percent increase compared with the existing, the post-Project hydrology would not adversely extend the vernal pool hydroperiod. Furthermore, as with the other vernal pools, the Project will not release dry weather nuisance flows to Vernal Pool 3.

Watershed A – Watershed A is located on the southeastern side of the Project and has an existing-condition tributary of approximately 165.20 acres, corresponding with Drainage D (described above). The tributary watershed originates offsite to the south and west, extending northeast to Baker Street and eventually to Alberhill Creek/ Temescal Wash. Watershed A does not contribute to either of the three vernal pools, but instead sheet flows directly to the offsite creek floodplain. Table 5-6 below summarizes the flow rates for the 2-, 5- and 10-year rainfall events. In the proposed condition, the Project will decrease the total watershed acreage slightly to 163.30 acres. The flows that originate offsite will be directed towards a proposed flow-by

basin along the edge of the Project site. Flows will then bypass the Project through a public storm drain that discharges on the northern side of Baker Street and continue down to Alberhill Creek/Temescal Wash as they have done historically. In the proposed condition, the flow rates will decrease slightly for each of the three rainfall events modeled:

- 2-year event – 81.29 cfs to 80.36 cfs (1.2 percent decrease)
- 5-year event – 127.72 cfs to 126.26 cfs (1.2 percent decrease)
- 10-year event – 191.55 cfs to 189.35 cfs (1.2 percent decrease)

These decreases are negligible from an engineering standpoint and are not expected to adversely affect downstream resources in Alberhill Creek/Temescal Wash.

Table 5-6. Comparison of Existing and Proposed Hydrologic Conditions

Watershed	Condition	Acreage	Flow Rate (cfs)			Volume (acre-foot)		
			Q2	Q5	Q10	Q2	Q5	Q10
A	Existing	165.20	81.29	127.72	191.55	N/A	N/A	N/A
	Proposed	163.30	80.36	126.26	189.35	N/A	N/A	N/A
	Change		**-1.2%**	**-1.2%**	**-1.2%**	**N/A**	**N/A**	**N/A**
B (VP 2)	Existing	27.79	21.05	31.91	45.19	0.48	0.86	1.44
	Proposed	28.54	25.28	36.50	47.41	0.70	1.04	1.52
	Change		**+20%**	**+14%**	**+5%**	**+46%**	**+21%**	**+6%**
C (VP 1)	Existing	6.40	4.56	6.83	9.64	0.11	0.19	0.32
	Proposed	7.28	5.42	7.77	10.04	0.17	0.25	0.35
	Change		**+19%**	**+14%**	**+4%**	**+55%**	**+32%**	**+9%**
D (VP 3)	Existing	217.79	142.94	217.36	284.45	9.16	13.86	18.09
	Proposed	219.64	148.75	223.61	287.20	9.25	14.09	18.18
	Change		**+1%**	**+1%**	**+1%**	**+1%**	**+1%**	**+1%**

Hydrology Analysis Conclusion

In addressing the depth and ponding duration (hydroperiod) of the vernal pools, there are a variety of factors that influence the duration, and ultimately the ponding duration is the key metric in defining the ecology of the vernal pools at Project site. Although the depth of the three vernal pools will contribute to their ponding duration, each vernal pool has a maximum depth and volume capacity based on the topography of each pool. The ponding observed during the 2024 rainfall season was at or very close to maximum capacity of each vernal pool. Ultimately, the ponding duration of each vernal pool based on its capacity is influenced by the number of rainfall events, the amount of rainfall during each event, the frequency of the rainfall events, the

timing of the last rainfall event, the air temperature, and the evaporation/evapotranspiration rates of each pool.

The only factor that the Project will alter is the volume of rainfall theoretically delivered to the vernal pools via the modified watersheds, but as noted below for Vernal Pools 2 and 3, the volumes of the modelled events exceed the maximum capacity estimated for the pools, so the increases modelled for those events post-project should have no effect on the maximum depths of the pools, nor on the total duration of inundation. Any significant increases in duration would have to be the result of non-seasonal release of dry weather flows, which would simulate additional rainfall events. However, as the proposed Project will retain all its non-seasonal dry weather flows, the Project will not release water to the vernal pools outside of the rainfall season. As such, the Project would not extend the ponding duration of the vernal pools beyond what is influenced by the occurrence of rainfall events.

The modelled 2-, 5- and 10-year events for the existing condition for Vernal Pools 2 and 3 all exceed the maximum volume capacity for the vernal pools. For example, the existing 2-year volume for the Vernal Pool 3 watershed (9.16-acre-feet) is more than nine times the volume capacity of Vernal Pool 3, with the excess water spilling off the pool. The proposed 2-year condition increases by 0.06-acre-foot to 9.25-acre-feet, but because of the excess, the increase is irrelevant, and the Project will not increase the depth of duration relative to a single rainfall event or cumulative rainfall events. The excess is even more profound with the 5-year and 10-year events. With 2024 having a rainfall season that was well above average, none of the pools were inundated past late May, and the Project will not increase those durations. In most years, the ponding duration will be less than that post-project, but certainly not more than that, unless the rainfall events themselves occur later in the season. Vernal Pool 1 is different in that the existing watershed is so much smaller compared with the other two vernal pools and proportionally relies much more on direct rainfall, and so it takes many rainfall events to bring the pool to its maximum. Although the volume percentage increases to Vernal Pool 1 are larger than the other two vernal pools, the actual volume amounts are small and although it could allow Vernal Pool 1 to pond relatively faster, the Project would not change the maximum depths of the vernal pool, nor would it change the duration of the vernal pool beyond that of the other vernal pools. In 2024, Vernal Pool 1 ponded later and dried up sooner than the other two vernal pools, and so the total duration for Vernal Pool 1 was three weeks less than Vernal Pool 3. Depending on conditions in any given year, the increase in hydrology could cause Vernal Pool 1 to inundate slightly faster in-line with Vernal Pool 3, and therefore the total duration for Vernal Pool 1 could therefore increase by a week or so but would not exceed the total duration of the other vernal pools.

In summary, the data demonstrates that the duration of Vernal Pools 2 and 3 is not expected to increase at all, with Vernal Pool 1 at most a slight increase relative to the other vernal pools, but that increase would not be considered significant.

5.9.2 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 Project includes a Preliminary WQMP that identifies the BMPs proposed to be implemented to treat project related pollutants for onsite and offsite impervious improvements. The WQMP will identify the post-construction treatment control and site design BMPs to treat specific pollutants from onsite impervious areas as well as the public right-of-way prior to discharge at historical locations on the northern side of the proposed Baker Street corridor improvements. BMPs located within the public right-of-way of Baker Street and Nichols Road will treat roadway specific pollutants within bio-retention/modular wetland facilities upstream of the specified discharge locations. A SWPPP will be prepared and certified by a qualified professional and implemented prior to onsite and offsite project construction disturbance. The SWPPP will focus on the design, installation, and treatment of construction related pollutants. The SWPPP document will be approved through the State of California and the Project will be registered as required by the Construction General Permit. The Project will be monitored before, during and after rain events to ensure BMP implementation and effectiveness in protecting downstream habitats and receiving water bodies.

The water quality BMPs will ensure the treatment of runoff within the Industrial Facility and from the portions Baker Street, Pierce Street and Nichols Road that will drain towards the RCA Conserved Lands. The Project will construct a Modular Subsurface Flow Wetland System (MSFWS) used for biofiltration of stormwater runoff including dry weather flows and other contaminated water sources. The MSFWS is a pre-engineered biofiltration system composed of a pretreatment chamber containing filtration cartridges, a horizontal flow biofiltration chamber with a peripheral void area and a centralized and vertically extending underdrain, the biofiltration chamber containing an absorptive media mix which does not contain any organic material and a layer of plant establishment media, and a discharge chamber containing an orifice control structure. The treated water flows horizontally in series through the pretreatment chamber cartridges, biofiltration chamber and orifice control structure.

During construction, the Project will implement erosion and sedimentation BMPs, to prevent excess sediments from entering the vernal pools. In addition, as noted above, the Project will contain all dry weather nuisance flows such that the non-seasonal water sources generated within the Project site will not enter the vernal pools. This will ensure that the water quality and chemistry of the vernal pools are not adversely affected by the Project.

5.9.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting.

The Project will incorporate an onsite lighting design that provides the required lighting levels for normal operation onsite. Exterior lighting can be designed as downward facing to prevent unnecessary foot candles outside of the Project boundary. The City of Lake Elsinore requires public streetlights every 200 feet on both sides of newly constructed public roadways per Lake

Elsinore standards 503 and 508. The Project will work with the City to design a public roadway lighting design that is sensitive to neighboring sensitive receptors.

If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area is not increased.

5.9.4 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 Project intends to provide Good Neighbor Policy screening to reduce noise impacts to neighboring properties. In addition, the City of Lake Elsinore Good Neighbor Policy requires additional edge condition screening along public right-of-way that will help reduce normal operation noise levels due to the placement of upgraded landscaping and fencing. A noise analysis will be prepared along with other environmental impact studies to determine project-related noise impacts. If noise levels exceed neighboring sensitive receptor levels, the study will identify mitigations of condition and implement to achieve acceptable noise levels.

As noted above, a portion of the offsite road improvements are located adjacent to Alberhill Creek where LBV has been detected. Because a portion of Nichols Road to be improved is adjacent to LBV habitat, there is a potential for indirect effects due to construction noise, if LBV were to be present during construction activities. If feasible, construction activities will avoid the LBV breeding season (March 15 to September 30). However, if the Nichols Road improvements adjacent to Alberhill Creek cannot avoid the LBV breeding season, then the following measures are proposed to address noise effects:

- **Avoidance Buffer** – If Nichols Road improvements adjacent to the Alberhill Creek riparian habitat will occur during the LBV breeding season (March 15 to September 30), then applicable measures will be implemented for any work within 300 feet of the habitat to avoid indirect impacts to LBV. The measures may include the installation of sound barriers, pre-construction surveys and/or clearance surveys. The Project proponent will implement an Environmental Awareness Training program prior to the start of construction to advise workers of sensitive biological areas within Alberhill Creek adjacent to Nichols Road.

- **Sound Barriers** – The Project proponent may install sound barriers along Nichols Road adjacent Alberhill Creek to prevent any adverse noise effects to LBV during construction. If utilized, the sound barriers will be installed prior to any work conducted after March 15 and will remain in place until August 31, unless it is first determined through surveys that LBV are not occupying habitat in the adjacent creek. To confirm the effectiveness of the sound barriers, a qualified biological monitor will measure noise levels within the creek on the opposite side of the sound barriers from Nichols Road. The monitor will

determine the existing ambient noise level, and then whether noise levels exceed 60 dB (or the ambient noise levels) due to construction activities. For areas where pre-construction ambient noise levels exceed 60 dB, pre-construction, ambient noise measurements can be taken by a qualified entity during the full daylight period (sunrise to sunset), and subsequently, the median average ambient noise level can be used as the baseline in lieu of 60 dB. For any nighttime construction activities, the same would be done as above but with measurements taken during the full nighttime period (sunset to sunrise). If construction noise levels exceed 60 dB or the ambient noise level, whichever is greater, then the sound barrier will be adjusted, and measurements will be re-taken. If construction noise levels are determined to be under 60 dB or the ambient noise level, whichever is greater, then construction activities will continue without any additional noise monitoring.

- **Pre-Construction and Clearance Surveys** – At least three pre-construction surveys and/or clearance surveys will be conducted for LBV in riparian habitat within Alberhill Creek that is within 300 feet of construction activities. The number of surveys will depend on when the surveys commence and whether LBV individuals are detected during the surveys. The survey visits will be conducted by a qualified biologist familiar with songs, whisper songs, calls, scolds, and plumage characteristics of adult and juvenile vireos. Surveys will be conducted between sunrise and 11:00 am. Surveys will not be conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather that individually or collectively may reduce the likelihood of detection. Any detections of LBV are to be mapped with behavior tracked across detections/sightings. The qualified biologist must have experience with nesting ecology and behavior of LBV to determine pre-nesting/nesting behavior.

    - If construction activities within the 300-foot buffer begin prior to March 15, then weekly surveys will be conducted by a qualified biologist starting on March 15 (or on the following Monday, if the 15th occurs during a weekend) and will continue until one or more individuals are detected, or until May 1 if no LBV are detected.
    - If construction activities within the 300-foot buffer begin after March 15 but before May 1, then at least three weekly surveys will be conducted starting one week prior to the initiation of activities and will continue until May 1, or later to complete the minimum three surveys, unless one or more LBV individuals are detected.
    - If sound barriers are installed prior to the initiation of construction activities, and one or more LBV individuals are detected within the 300-foot buffer, then noise monitoring will be conducted as described in the Sound Barrier measure. If the sound barriers are demonstrated to be effective at reducing noise below the stated thresholds, then additional noise monitoring will not be required. However, the monitoring biologist will inspect the sound barriers weekly to ensure the barriers

are intact and will advise the Project proponent if repairs are needed to the sound barriers.

- **Noise Monitoring** – If sound barriers are not installed prior to the start of construction activities, then daily noise monitoring will be conducted between March 15 and September 30 if LBV are detected at any point during the pre-construction/clearance surveys. A qualified biological monitor will measure noise levels at the edge of the occupied habitat and work shall cease if, at any time, noise levels exceed 60 dB due to construction activities, or the existing ambient level if that is over 60 dB. Work will re-start if sound barriers are installed and are demonstrated to effectively reduce monitoring. If it is determined that the sound barriers are not sufficiently reducing noise levels, then the work will remain halted, and the Project proponent will contact CDFW and USFWS to discuss if other methods are available to reduce noise levels below the stated threshold.

5.9.5 Invasive Species

The Project shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, Table 6-2 of the MSHCP.

5.9.6 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.

5.9.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. Relative to the Project, the MSHCP Conservation Area, i.e., the RCA Conserved Lands, is located northeast of the City Maintenance Area, which separates the Baker Street improvements from the onsite portion of the Project. All Project grading will occur within the development footprint and will not extend into the RCA Conserved Lands, including manufactured slopes associated with the Baker Street improvements.

5.10 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

The temporary direct and/or indirect impacts of the Project would not result in significant cumulative impacts to environmental resources within the region of the Project site. Cumulative

impacts refer to incremental effects of an individual project when assessed with the effects of past, current, and proposed projects. The MSHCP was developed to address the comprehensive regional planning effort and anticipated growth in the City of Lake Elsinore. The Project would result in permanent impacts to vegetation communities described for conservation by the MSHCP including grassland habitats and wetlands (vernal pool) but is not impacting lands that are physically described for conservation. Instead, the Project is conserving lands described for conservation, including riparian scrub, alkali playa and grassland habitats. The Project will potentially impact MSHCP Covered Species but those impacts would be mitigated through a combination of general MSHCP compliance, pre-construction surveys, protection plans and avoidance, as required (see Sections 6.1 and 6.2). As described below in Section 6.5, impacts to habitat with long-term conservation value for San Diego ambrosia and Coulter's goldfields will be mitigated through habitat restoration within adjacent proposed RCA Conserved Lands.

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides recommendations for project-specific measures, including those that mitigate specific resource impacts, avoid and/or minimize impacts to sensitive resources, or those presented as Project Design Features offering benefits for sensitive resources that might not mitigate for a specific impact.

6.1 Burrowing Owl

The Project site contains suitable habitat for burrowing owls; however, burrowing owls were not detected onsite during focused surveys. As a Project avoidance measure, MSHCP Objective 6 for burrowing owls requires pre-construction surveys prior to site grading. The following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP.

- A 30-day pre-construction survey for burrowing owls, performed by a qualified biologist, is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the 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 owls have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

6.2 Nesting Birds

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following avoidance measure is recommended to prevent impacts to nesting birds:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

6.3 Jurisdictional Waters

As noted above, the Project will impact 0.64 acre of Regional Board jurisdiction, including 0.17 acre of wetlands, and 0.66 acre of CDFW jurisdiction. The following measures identify mitigation proposed for impacts to jurisdictional waters:

- The Project will mitigate permanent impacts to ephemeral drainage features (0.47 acre of Regional Board jurisdiction and 0.50 acre of CDFW jurisdiction) offsite through the purchase of mitigation credits from the Riverpark Mitigation Bank. The mitigation credits will include a minimum 1:1 of re-establishment and 2:1 of re-establishment and/or re-habilitation.

- The Project will mitigate permanent impacts to 0.01 acre of Vernal Pool 2 and 0.16 acre of Vernal Pool 3 by expanding the remainder of each ponding basin. Upland areas adjacent to the existing basins will be graded and the basins will be recontoured to achieve the additional ponding acreage. The expanded areas of each pool will be seeded with a mixture of plant species known from the three vernal pools, with potentially additional plant species to be determined. Vernal Pool 2 will be expanded by 0.03 acre [Exhibit 12B] along the northern edge of the pool and Vernal Pool 3 will be expanded by 0.48 acre [Exhibit 12C] along the northern and western edges, resulting in a 3:1 replacement ratio for each pool. All three vernal pools will be protected within the RCA Conserved Lands.

  A Habitat Mitigation and Monitoring Plan (HMMP) will be prepared by a habitat restoration specialist to address the vernal pool mitigation. The HMMP will, at a minimum, include details about the type of mitigation, acreages, when the mitigation would be implemented, plant palettes, site preparation, weeding plan, success criteria, monitoring plan (e.g., years/duration, frequency, etc.), reporting, the proposed management entity, and contingency measures in the event the mitigation is not successful. The monitoring will include hydrologic monitoring to confirm that the recontoured areas inundate sufficiently to support seasonal ponding/wetland conditions.

The type of contingency measures would depend on which success criteria have not been met. If the vernal pools are not meeting plant coverage and/or non-native criteria, then additional plant remediation/maintenance efforts would be implemented, and the monitoring period would be extended. If the expanded vernal pools do not meet inundation criteria, then possibly the pools would be regraded, or the soils remediated to address hydrology. Additional details will be provided in the HMMP. In the context of regulatory permitting, the HMMP will be provided to the City, CDFW and the Regional Board for review and approval.

6.4 MSHCP Riparian/Riverine Areas and Vernal Pools

The following measures repeat those that are presented above in Section 6.3 but are presented here as MSHCP compliance measures for riparian/riverine areas and vernal pools. As noted above, the Project will impact 0.50 acre of MSHCP riverine areas and 0.17 acre of vernal pools, including 0.01 acre of Vernal Pool 2 and 0.16 acre of Vernal Pool 3.

- A DBESP analysis will be submitted to the Wildlife Agencies (USFWS, CDFW) for review and approval pursuant to the MSHCP riparian/riverine policies.

- The Project will mitigate impacts to 0.50 acre of Riverine Areas offsite through the purchase of mitigation credits from the Riverpark Mitigation Bank. The mitigation credits will include a minimum 1:1 of re-establishment and 2:1 of re-establishment and/or re-habilitation. The Project will mitigate impacts to 0.17 acre associated with Vernal Pool 2 and Vernal Pool 3 by expanding the existing vernal pools on the opposite (northern) side from the proposed impacts [Exhibits 12B and 12C]. The Project will expand the vernal pools by at least 0.51 acre (minimum 3:1 replacement ratio) and enhance adjacent alkali grassland habitat. In conjunction with the rare plant mitigation, the Project will include rare plant species in the vernal pool expansion area, such as Coulter's goldfields. The Project will develop a Habitat Mitigation and Monitoring Plan (HMMP), to be prepared by a habitat restoration specialist, that will identify site preparation methods, the proposed plant palette, proposed success criteria, and maintenance/long-term monitoring procedures. The HMMP will be submitted to the City, RCA, USFWS, CDFW, and CNRA for review and approval prior to implantation of the proposed mitigation.

6.5 Plants

The following measures are proposed for compliance with MSHCP requirements for Narrow Endemic Plants and Criteria Area Plants. The Project proposes to mitigate the loss of habitat with long-term conservation value for San Diego ambrosia (0.44 acre) and Coulter's goldfields (0.50 acre), and little mousetail (0.07 acre, if present) as follows:

- **San Diego Ambrosia –** All impacts to San Diego ambrosia habitat with long-term conservation value will be mitigated within the RCA Conserved Lands. To mitigate the loss of 0.44 acre of habitat with long-term conservation value for San Diego ambrosia, the Project will develop and implement a San Diego Ambrosia Translocation Plan

(Ambrosia Plan). The Ambrosia Plan will identify proposed receiver sites within the RCA Conserved Lands where ambrosia stems and soils will be translocated to. The receiver sites will be located within a minimum of 1.32 acres of contiguous degraded habitat in the Alberhill Creek floodplain to be restored by the Project [Exhibit 11 – Plant Restoration Map]. The proposed restoration area consists of an area dominated by non-native grasses and forbs where San Diego ambrosia was detected in the past (per public records), but due to overgrowth by invasive vegetation, San Diego ambrosia was not detected during plant surveys for the Project.

The general components of the Ambrosia Plan will include the salvage and collection of individual ambrosia stems from the donor sites. Approximately 10-percent of the stems would be salvaged and stored at a nursery facility for propagation, to be held as a contingency source. Another 20-percent of the stems would be translocated directly to the receiver sites, where the stems will be transplanted into study plots. The remaining stems will be collected along with the soils, which will be bulk transferred to the receiver sites. The expectation is that through rhizome spread, both within the plots and between the plots, the number of stems will increase. The Ambrosia Plan will identify proposed salvage and translocation methods from the donor sites, site preparation methods of the receiver sites, plant palettes, success criteria, maintenance/long-term monitoring procedures, and contingency measures. The Ambrosia Plan will be submitted to the City, RCA, USFWS, CDFW and CNRA for review and approval prior to implementation.

- **Coulter's Goldfields –** To mitigate the loss of 0.50 acre of habitat with long-term conservation value for Coulter's goldfields, the Project will restore/expand Coulter's goldfields habitat in two areas. The first area consists of the expansion of habitat associated with Vernal Pool 3 by approximately 0.75 acre [Exhibit 11 – Plant Restoration Map]. The second area consists of the expansion of another 0.75-acre area in the Alberhill Creek floodplain adjacent to an existing population of Coulter's goldfields and vernal barley [See Exhibit 11]. If little mousetail occurs in Vernal Pool 3, then the expansion of the vernal pool would mitigate those impacts, as it would address all vernal pool flora associated with Vernal Pool. However, because there was no confirmation of little mousetail during focused plant surveys, there will not be any performance standards specific to little mousetail, as there is no guarantee of little mousetail propagules being present in the edge portion of the vernal pool to be impacted where soil inoculum would be collected prior to impact.

  The Project will develop a Habitat Mitigation Monitoring Plan (HMMP), to be prepared by a habitat restoration specialist, to address the vernal pool mitigation efforts, as well as the mitigation for Coulter's goldfields. The HMMP will, at a minimum, include details about the type of mitigation, acreages, when the mitigation would be implemented, plant palettes, site preparation, weeding plan, success criteria/performance standards, monitoring plan (e.g., years/duration, frequency, etc.), reporting, the proposed management entity, and contingency measures in the event the mitigation is not successful. The type of contingency measures would depend on which success criteria/performance standards have not been met. If the mitigation areas are not meeting plant coverage and/or non-native criteria, then additional plant remediation/maintenance

efforts would be implemented, and the monitoring period would be extended. The HMMP will be submitted to the City, RCA, USFWS, CDFW and the CNRA for review and approval.

6.6 Crotch's Bumble Bee

Because CBB was detected foraging at the Project site in 2024, but not detected in 2025, it is recognized that the Project will impact vegetation communities (sage scrub and grassland) with floral resources that provide foraging opportunities for CBB, and that when CBB is present, the underlying substrate within vegetation communities may provide habitat for nesting and/or overwintering. The following measure represents Project Design Features that minimize the potential for "take" should CBB individuals be present at that time of construction-related site disturbance and offset impacts to vegetation communities that have the potential to support CBB in the future:

- Updated focused surveys will be performed by a qualified CBB biologist during the Colony Active Period (April to August) immediately prior to the planned disturbance of the site. If CBB is detected within the disturbance footprint, then the Project proponent will coordinate with CDFW to determine whether avoidance and minimization measures are feasible to avoid "take" of CBB individuals. If "take" avoidance is determined to be infeasible, then the Project proponent will obtain an Incidental Take Permit (ITP) from CDFW. If CBB is not detected during the updated focused surveys, then the results of the focused survey will be valid until January 31 of the year following the updated focused surveys. If all potential CBB habitat is not removed by January 31 of that year, then focused surveys will be repeated in a subsequent season for any remaining habitat.

- As mitigation for impacts to CBB habitat, the Project has already conserved 33.66 acres of land as part of the RCA Conserved Lands, which includes 25.58 acres of grassland with the potential to support CBB foraging, nesting and/or overwintering. Per Section 6.5 above, the Project is committing to restore a portion of the 25.58 acres in conjunction with translocating San Diego ambrosia to the RCA Conserved Lands. As part of the translocation effort, the Project proponent will restore the applicable portion of those lands by removing non-native plant resources that do not support CBB foraging and re-vegetating with appropriate CBB floral resources. In addition, as part of its participation with the MSHCP, the Project will pay MSHCP development fees, which will contribute to the funding, acquisition, and conservation of lands contributing to the MSHCP Reserve. Since the adoption of the MSHCP, more than 24,000 acres of sage scrub and grasslands have been acquired for the MSHCP Reserve. The Project's payment of development fees will fund additional acquisition of lands that will support biological functions for CBB and contribute to the conservation of the species in Western Riverside County. Given the intermittent use of the site by CBB based on the presence of CBB in 2024 but absence in 2025, the combined measures sufficiently address the loss of habitat for CBB under CEQA such that impacts to CBB would be reduced to below a level of significance.

6.7 Western Spadefoot

The following avoidance and minimization measures will be implemented by the Project, including an exclusionary effort to fence specific areas of the Project site [Exhibit 15 – Western Spadefoot – Fencing and Exclusion Survey Areas] and to perform clearance surveys of the designated areas to capture and relocate any detected spadefoots to the vernal pools within the RCA Conserved Lands. As described in the measures below, the clearance surveys will include multiple survey visits, with follow-up monitoring, but the clearance efforts will be conducted one time prior to any disturbance of the Project site, i.e., the clearance surveys will not be repeated for multiple seasons if the construction activities do not immediately follow the clearance surveys. Following the completion of the exclusion/clearance efforts, exclusionary fencing will remain in place along the development limits with the RCA Conserved Lands until construction activities have concluded to prevent spadefoots from returning to the development footprint, even if multiple seasons will separate the exclusion/clearance surveys from the timing of construction activities. However, the exclusionary fencing will be monitored at least weekly during every breeding season to move any spadefoots into the RCA Conserved Lands that might be trapped on the opposite side of the fence. This monitoring will continue until construction has been completed, or unless monitoring can be terminated (or suspended) with the concurrence of the RCA, USFWS, CDFW and CNRA. These measures overlap with minimization measures that will apply to the vernal pools themselves, which will be addressed in the HMMP to be reviewed and approved by the City, RCA, USFWS, CDFW and CNRA. The disturbance of the site will not commence until the HMMP has been approved.

- **Timing of disturbance –** No disturbance work, including Project grading and mitigation activities (vernal pool expansion), will occur within western spadefoot breeding habitat associated with Vernal Pools 2 and 3 or upland habitat within 1,500 feet of vernal pools until those areas have been exclusion fenced and cleared of western spadefoot during the appropriate winter survey period.

- **Fencing**

    - **Construction fencing –** Construction fencing, not to be confused with exclusion fencing (discussed below), will be installed along all project components to demarcate the Project boundaries. No disturbance will occur outside of the construction fencing. The fencing will be installed prior to the start of any disturbance, to be verified (including photographed) by the monitoring biologist and will remain in place until construction has been completed. Fencing shall include small animal jump outs in the fencing (e.g., gradually sloped, smooth, flat-topped mounds of dirt on the upland side of the fence with small slits placed in the fencing at the top of the mounds). Placement of cover, ideally weathered wood, shall be placed along the inside of the fencing approximately every 50 feet. This cover shall be checked during clearance and monitoring surveys. All animals encountered under the cover shall be placed outside the fencing, with the western spadefoots being moved to the pools as described below. In general, the fencing

will be checked periodically and replaced as necessary if it becomes worn or damaged.

- **Exclusionary Silt Fencing –** Exclusionary fencing will be installed around areas that will be disturbed and include the entirety of the Industrial (Onsite), Baker Street (Offsite), City Maintenance Area (Offsite) areas and other Additional Street Improvements (Offsite) areas within 1,500 feet of the vernal pools [Exhibit 15 – Western Spadefoot – Fencing and Exclusion Survey Areas]. Exhibit 15 identifies three distinct areas that will be surrounded by exclusionary fencing, including the entirety of the onsite portion of the Project, the portion of the Baker Street improvements not within the existing road right-of-way and the City Maintenance Area, and a small area adjacent to Nichols Road and Pierce Street. Fencing will be installed and maintained prior to the onset of winter rain events. The purpose of the exclusionary fencing will be to enclose clearance areas for western spadefoot relocation prior to the onset of site disturbance. As with the construction fencing, the exclusionary fencing will be installed prior to the start of any disturbance, to be verified (including photographed) by the monitoring biologist and will remain in place until construction has been completed. In general, the fencing will be checked periodically and replaced as necessary if it becomes worn or damaged. After the clearance surveys are completed (as described below), exclusionary fencing will remain along the disturbance boundary with the RCA Conserved Lands until the conclusion of construction activities, to prevent any spadefoots from returning into the development footprint following the breeding season. It is acknowledged that construction activities might not immediately follow the breeding season in which the clearance surveys are conducted. If so, exclusionary fencing will remain along the boundary between the RCA Conserved Lands and the development footprint until construction activities are concluded, even if multiple breeding seasons separate the clearance surveys from the start of the construction activities. The exclusionary fencing will be monitored at least weekly during each breeding season to move any spadefoots into the RCA Conserved Lands that might be trapped on the opposite side of the fence. This monitoring will continue annually until construction has been completed, unless the monitoring can be terminated (or suspended) with the concurrence of the RCA, USFWS, CDFW and CNRA.

- **Protection and Avoidance –** In addition to the above measures addressing timing of disturbance and fencing, additional measures will be implemented to minimize impacts to western spadefoot individuals.

    - **Hydrology monitoring –** If construction activities are intended to occur within the Baker Street alignment or the City Maintenance Area during the western spadefoot breeding season, a biologist will monitor the hydrology of the vernal pools after the first measurable rains to determine the earliest timeframe that western spadefoot individuals could initiate breeding.

- **Western spadefoot clearance prior to pool inundation –** After installation of construction fencing and exclusionary fencing, qualified biologists will perform clearance surveys and relocations during the first four large (0.25-inch or greater) rain events of the winter. The clearance surveys will be conducted for each of the three areas described above. In addition, although the existing Baker Street and Pierce Street will not be enclosed by fencing since they have existing rights-of-way, the surfaces of the dirt roads will be surveyed along with the three exclusion zones, and any spadefoots detected on the road surfaces will be captured and relocated. These are nocturnal surveys and should be performed during each of the four rain events or the next night following a rain event. Clearance surveys will involve walking 30-meter or less pedestrian transects within the exclusion fenced area, while looking for western spadefoot eyeshine and individuals. The biologist will perform 360-degree scans at least every 100 meters to look for eyeshine behind them. Dense vegetation may require that transects be more closely spaced such that 100% visual coverage is provided. Once a western spadefoot is detected, the biologist will go to the location, GPS the location, collect basic data (e.g., sex, size, behavior [e.g., emerging, walking/direction, foraging], etc.) as feasible, quickly scan 360 degrees to see if there are other individuals emerging nearby, collect the individual in a bucket for relocation, then continue along the transect route. Biologists will employ safe handling techniques to prevent directly harming individual spadefoots and prevent introducing pathogens to individual spadefoots. This will include wearing a clean pair of disposable gloves when handling each spadefoot collected and keeping the collected spadefoots in a sterilized bucket until they are transferred to the vernal pools. Additional methods may be employed, as applicable, according to The Declining Amphibian Task Force Fieldwork Code of Practice[10]. After completion of the clearance survey, all collected western spadefoot will be evenly distributed around Vernal Pools 1 through 3. If the pools are inundated, then western spadefoots should be placed at the water's edge of the pools. If the pools have yet to inundate, then western spadefoots should be placed within the entrance of rodent burrows above, but within 10 meters, of the high-water line of the pools. Released individuals will be monitored long enough to verify that they are moving and apparently healthy.

- **Western spadefoot monitoring during construction (and during the interim between clearance survey areas and construction) –** After the clearance surveys are complete and until construction activities are concluded, during the western spadefoot breeding season(s) the biologist will monitor the exclusionary fencing separating the RCA Conserved Lands from the development footprint. The biologist will inspect the side of the exclusion fencing facing the construction site at least once per week to search for western spadefoot individuals that might be trapped inside of the exclusionary fencing. If individuals are detected inside of the fence, then they will be relocated to the opposite side of the fencing and placed just outside of the inundation limits of the pools. The biologist will inspect

[10] Available at https://www.fws.gov/sites/default/files/documents/declining-amphibian-task-force-fieldwork-code-of-practice.PDF

the surface of the pools to be impacted within disturbance limits, i.e., in the area separated from the avoided pools by the exclusion fence as well as within any deep cracks that have formed in substrate. If spadefoots are detected within cracks, the biologist will carefully attempt to remove spadefoots by hand and relocate them to inside the fencing demarcating the disturbance limits. If multiple breeding seasons will separate the clearance surveys from the start of construction activities, then the exclusionary fencing will remain in place and the monitoring will be performed for each breeding season until the start of construction, unless monitoring can be terminated (or suspended) with the concurrence of the RCA, USFWS, CDFW and CNRA.

- **Monitoring during initial disturbance –** A biologist will monitor the initial disturbance to Vernal Pools 2 and 3 for any spadefoot metamorphs that might escape soil cracks while equipment initially disturbs the soil. The initial disturbance of the pools will be conducted using small equipment such as a backhoe. The disturbance will be directed by the monitoring biologist to commence slowly from the outer edge of the pools towards the disturbance limits. If the biologist observes a metamorph escaping a crack, then the biologist will halt the equipment and attempt to relocate the toad to the opposite side of the silt fencing.

7.0 SUMMARY OF MSHCP CONSISTENCY

The purpose of this section is to summarize the Project's consistency with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed Project with respect to the Project's consistency with MSHCP Reserve assembly requirements, *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). A more detailed MSHCP Consistency Analysis will be prepared separately to support Joint Project Review (JPR).

The RCA issued JPR Findings on July 31, 2025 [Appendix I], concluding that the Project is consistent with both the Cell Criteria and other Plan requirements with the implementation of measures presented in the Findings. The measures included those that were documented as part of the JPR application package and are also included in this document.

7.1 Project Relationship to Reserve Assembly

The Project site is located within Subunit 3 (Elsinore) of the Elsinore Area Plan of the MSHCP, with approximately 78.97 acres of the site within Criteria Cell 4157, 4166, 4169, 4266 and Cell Group W (Cell 4060 and 4067) [Exhibit 4A – MSHCP Map]. All of the development proposed within Criteria Cells is either located in areas not described for conservations or consists of street improvements within existing developed roadways that will not expand the existing roadway. In addition, the Project will conserve approximately 33.66 acres, including 32 acres within the

northeastern portion of Cell 4166 that includes and is adjacent to Alberhill Creek/Collier Marsh. The proposed development and conservation are consistent with the Reserve Assembly requirements for the applicable Criteria Cells.

7.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

The proposed Project will impact 0.50 acre of riverine areas and approximately 0.17 acre associated with Vernal Pool 2 and Vernal Pool 3. The Project proposes to mitigate impacts to 0.50 acre of Riverine Areas offsite through the purchase of mitigation credits from the Riverpark Mitigation Bank. The mitigation credits will include a minimum 1:1 of re-establishment and 2:1 of re-establishment and/or re-habilitation. The Project will mitigate impacts to 0.17 acre of wetlands associated with the vernal pools by expanding the existing vernal pools on the opposite (northern) side from the proposed impacts [Exhibit 11 – Plant Restoration Map]. The Project will expand the vernal pools by at least 0.51 acre (minimum 3:1 replacement ratio) and enhance adjacent alkali grassland habitat. In conjunction with the rare plant mitigation, the Project will include rare plant species in the vernal pool expansion area, such as Coulter's goldfields. The Project will develop a HMMP that will identify site preparation methods, the proposed plant palette, proposed success criteria, and maintenance/long-term monitoring procedures. The HMMP will be submitted to the City, RCA, USFWS, CDFW and the Regional Board for review and approval prior to implementing the proposed mitigation. The Project proponent will submit a DBESP Analysis to the RCA and Wildlife Agencies for review and approval. With the mitigation and the approval of a DBESP, the Project will be consistent with *Section 6.1.2* of the MSHCP.

7.3 Protection of Narrow Endemic Plants

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 Project will impact San Diego ambrosia in several locations, including in the southern portion of the Industrial footprint (onsite) and within the proposed offsite road improvements along Pierce Street and Nichols Road. Because the Project site is within the NEPSSA for San Diego ambrosia, the Project is required by the MSHCP to identify habitat with long-term conservation value for the species and to avoid at least 90 percent of the habitat. GLA has identified 0.44 acre of habitat with long-term conservation value for the ambrosia within the Project footprint, all of which will be impacted by the Project. A DBESP must be approved by the Wildlife Agencies (USFWS and CDFW).

To mitigate the loss of 0.44 acre of habitat with long-term conservation value for San Diego ambrosia, the Project will restore approximately 1.32 acres of degraded habitat in the Alberhill Creek floodplain with San Diego ambrosia [Exhibit 11 – Plant Restoration Map]. The proposed restoration area consists of an area dominated by non-native grasses and forbs where San Diego ambrosia was detected in the past (per public records), but where due to overgrowth by invasive vegetation, San Diego ambrosia was not detected during plant surveys for the Project. The

Project will develop a HMMP that will identify site preparation methods, the proposed plant palette, proposed success criteria, and maintenance/long-term monitoring procedures. The HMMP will be submitted to the RCA, CDFW, USFWS and CNRA for review and approval prior to implantation of the proposed mitigation. With the proposed mitigation and the approval of a DBESP, the Project will be consistent with Section *6.1.3* of the MSHCP.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

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 5.9 of this report, the Project will implement applicable measures to minimize adverse indirect impacts on special-status resources within Conserved Lands. The proposed Project will be consistent with *Section 6.1.4* of the MSHCP.

7.5 Additional Survey Needs and Procedures

The Project will impact Coulter's goldfields associated with one of the vernal pools adjacent to the proposed Baker Street improvements, and potentially little mousetail based on the noted public record. Because the Project site is within the CAPSSA for Coulter's goldfields and little mousetail, the Project is required by the MSHCP to identify habitat with long-term conservation value for the species and to avoid at least 90-percent of the habitat. GLA has identified 2.70 acres of habitat with long-term conservation value for Coulter's goldfields associated with the three vernal pools. The proposed Project will directly impact 0.50 acre of the habitat (20 percent) of the habitat at the edge of one of the vernal pools (Vernal Pool 3). Assuming that little mousetail is present in Vernal Pool 3, the Project would impact 0.16 acre of habitat with long-term conservation value. A DBESP must be approved by the Wildlife Agencies. To mitigate the loss of 0.50 acre of habitat with long-term conservation value for Coulter's goldfields, the Project will restore/expand Coulter's goldfields habitat in two areas. The first area consists of the expansion of Vernal Pool 3 by approximately 0.75 acre, which would also address mitigation for little mousetail. The second area consists of the expansion of another 0.75-acre area in the Alberhill Creek floodplain adjacent to an existing population of Coulter's goldfields and vernal

barley. The Project will develop a HMMP that will identify site preparation methods, the proposed plant palette, proposed success criteria, and maintenance/long-term monitoring procedures. The HMMP will be submitted to the RCA, USFWS, CDFW and CNRA for review and approval prior to implantation of the proposed mitigation. With the proposed mitigation and the approval of a DBESP, the Project will be consistent with Section *6.3.2* of the MSHCP.

The Project site is located within the Burrowing Owl Survey Area. Focused surveys were conducted during the 2022 breeding season, with negative results. However, because the Project site has the potential to support burrowing owls in the future, MSHCP Objective 6 for burrowing owls requires pre-construction surveys prior to site grading. A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the 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 owls have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary. With the implementation of this measure, the Project will be consistent with Section *6.3.2* of the MSHCP as it pertains to burrowing owls.

7.6 Conclusion of MSHCP Consistency

As outlined above, the proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to 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).

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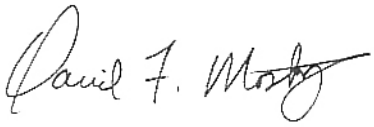
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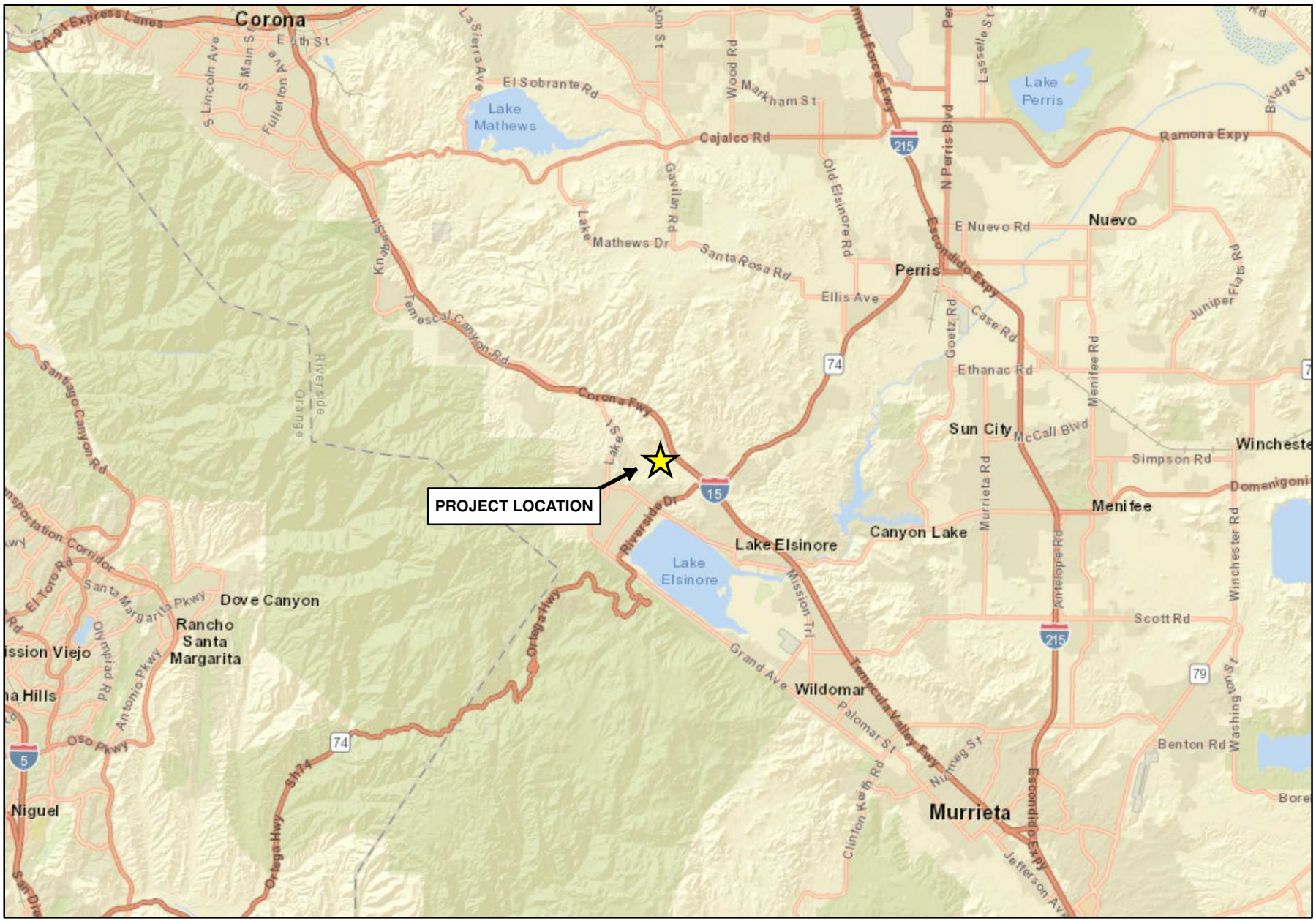
9.0 CERTIFICATION

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



Signed:_____ Date: 09/02/25

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Source: ESRI World Street Map

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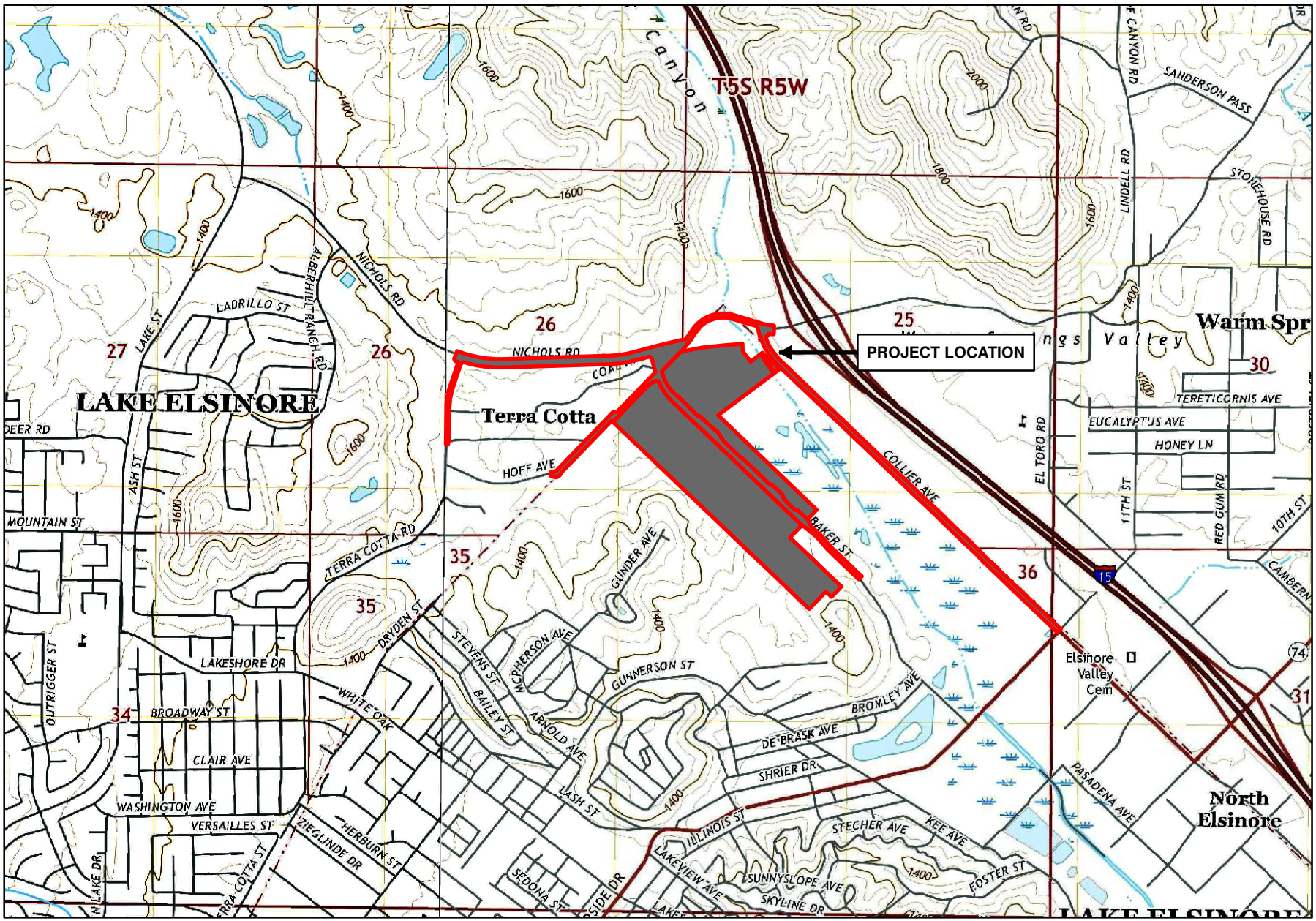
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BAKER INDUSTRIAL PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Lake Elsinore, CA quadrangle

N

0 1,000 2,000 4,000 Feet

BAKER INDUSTRIAL PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land

N

0 275 550 1,100

Feet

1 inch = 575 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, 2025

BAKER INDUSTRIAL PROJECT

Project Components Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Cell Group W

N

0 275 550 1,100
Feet

1 inch = 575 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, 2025

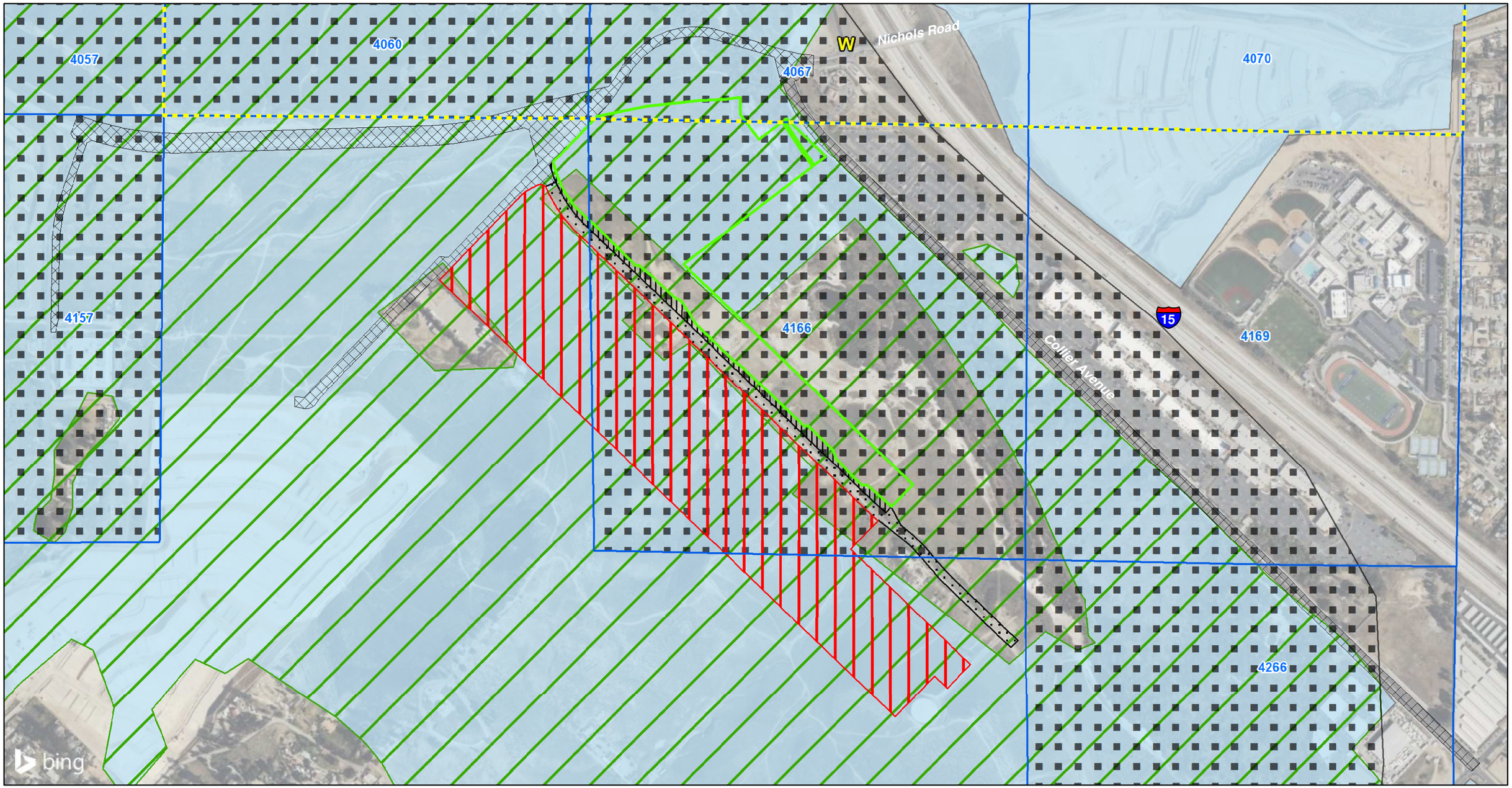
BAKER INDUSTRIAL PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4A

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Cell Group W
- Criteria Area Species Survey
- Narrow Endemic Plant Species Survey Areas
- Species Survey Areas Burrowing Owls

N

0 275 550 1,100
Feet

1 inch = 575 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, 2025

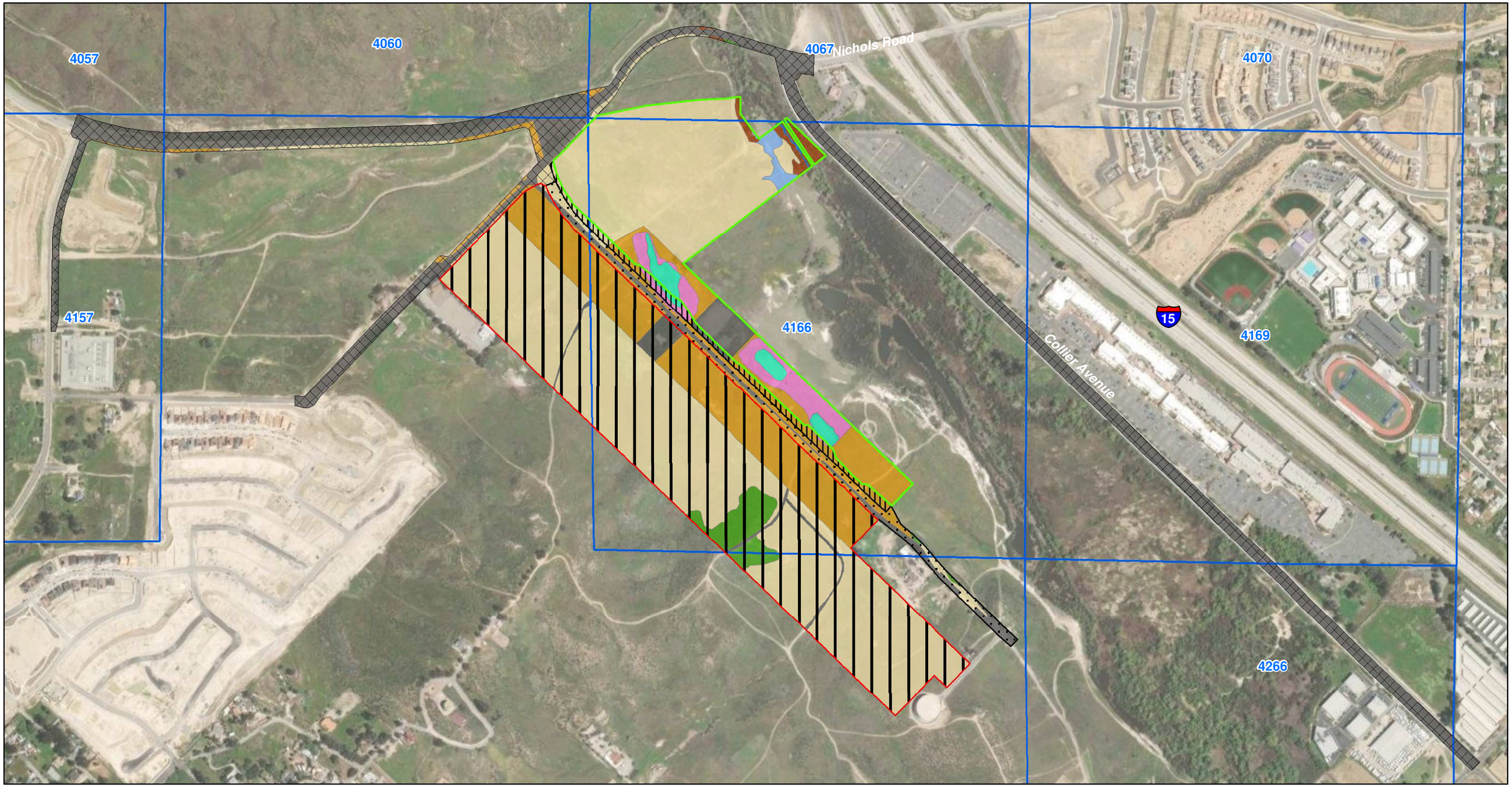
BAKER INDUSTRIAL PROJECT

MSHCP Species Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 4B

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Akali Grassland
- Alkali Playa
- Disturbed Semi-Natural Herbaceous Grassland
- Disturbed/Developed
- Open Water
- Riversidean Sage Scrub
- Semi-Natural Herbaceous Grassland
- Southern Willow Riparian Scrub
- Vernal Pool

N

0 275 550 1,100

Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: July 8, 2025

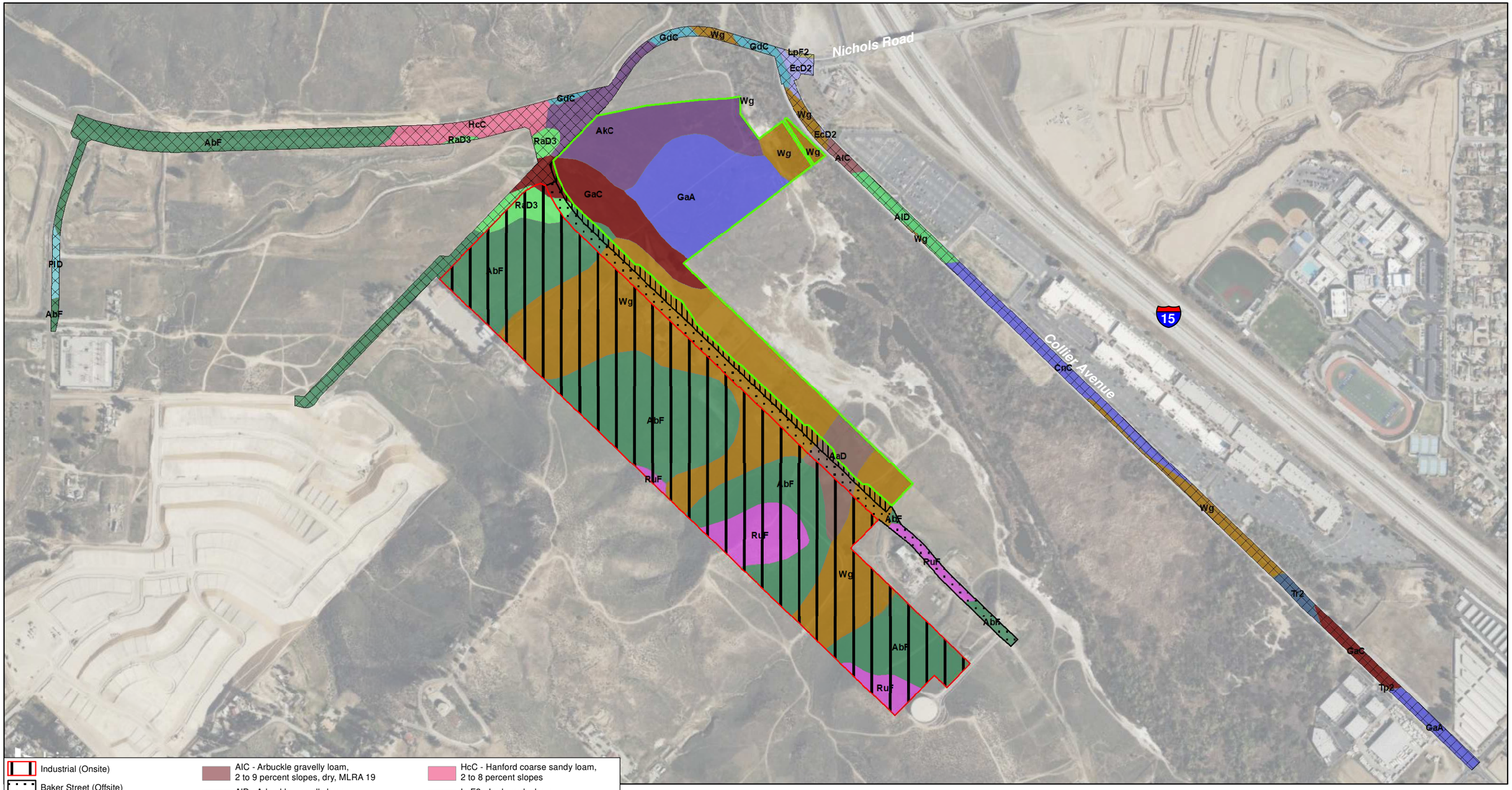
BAKER INDUSTRIAL PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- AaD - Altamont clay, 5 to 15 percent slopes
- AbF - Altamont cobbly clay, 8 to 35 percent slopes
- AkC - Arbuckle loam, 2 to 8 percent slopes
- AlC - Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19
- AlD - Arbuckle gravelly loam, 8 to 15 percent slopes
- CnC - Cortina gravelly coarse sandy loam, 2 to 8 percent slopes
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, erod ed
- GaA - Garretson very fine sandy loam, 0 to 2 percent slopes
- GaC - Garretson very fine sandy loam, 2 to 8 percent slopes
- GdC - Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- PID - Placentia fine sandy loam, 5 to 15 percent slopes
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RuF - Rough broken land
- Tp2 - Traver loamy fine sand, eroded
- Tr2 - Traver loamy fine sand, saline-alkali, eroded
- Wg - Willows silty clay, saline-alkali

N

0 275 550 1,100

Feet

1 inch = 575 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, 2025

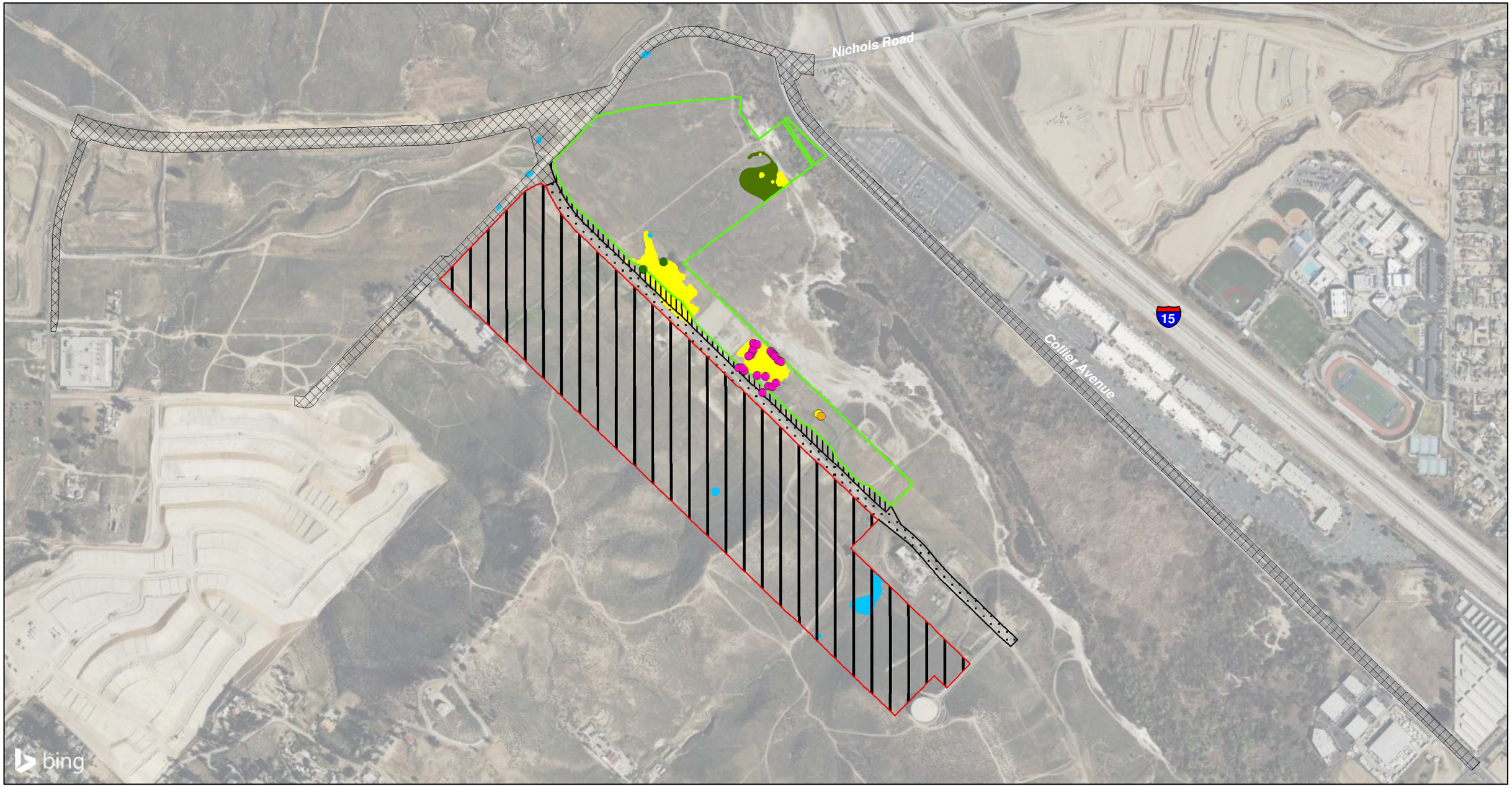
BAKER INDUSTRIAL PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 6

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land

- Coulter's Goldfields
- San Jacinto Valley Crownscale
- Vernal Barley
- Small-flowered Microseris

Habitat with Long-term Conservation Value

- Coutler's Goldfields (2.70 ac.)
- Vernal Barley (1.04 ac.)
- San Diego Ambrosia (0.44 ac.)

N

0 275 550 1,100
Feet

1 inch = 575 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, 2025

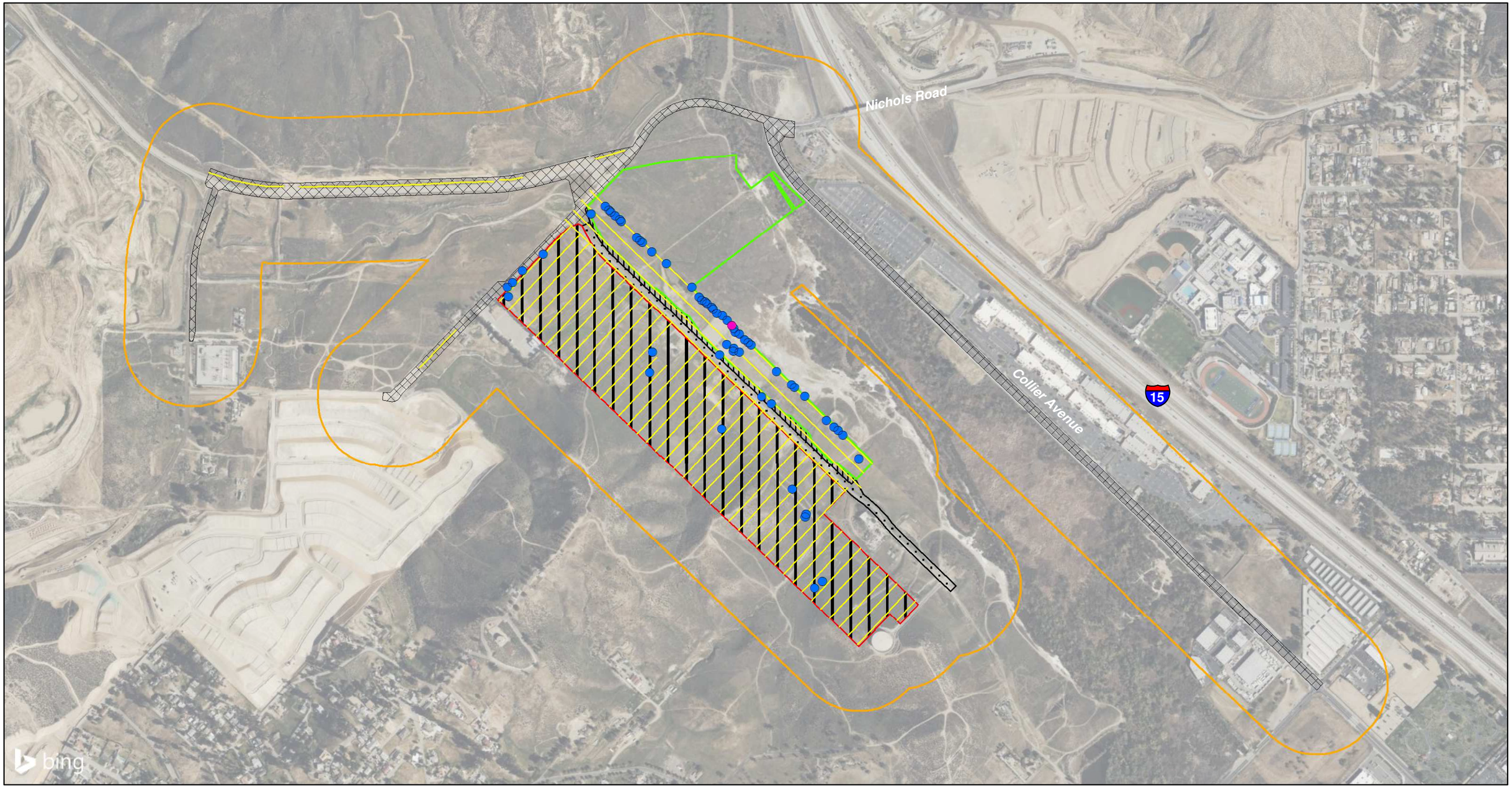
BAKER INDUSTRIAL PROJECT

Rare Plants Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\1100 AFTER THE REST\1514-05BKIN\GIS\PlantsGIS\1514-05_Plants.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- 500' Visual Survey Area
- Transect
- Burrow
- Burrow with Fresh Pellet

N

0 362.5 725 1,450

Feet

1 inch = 725 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, 2025

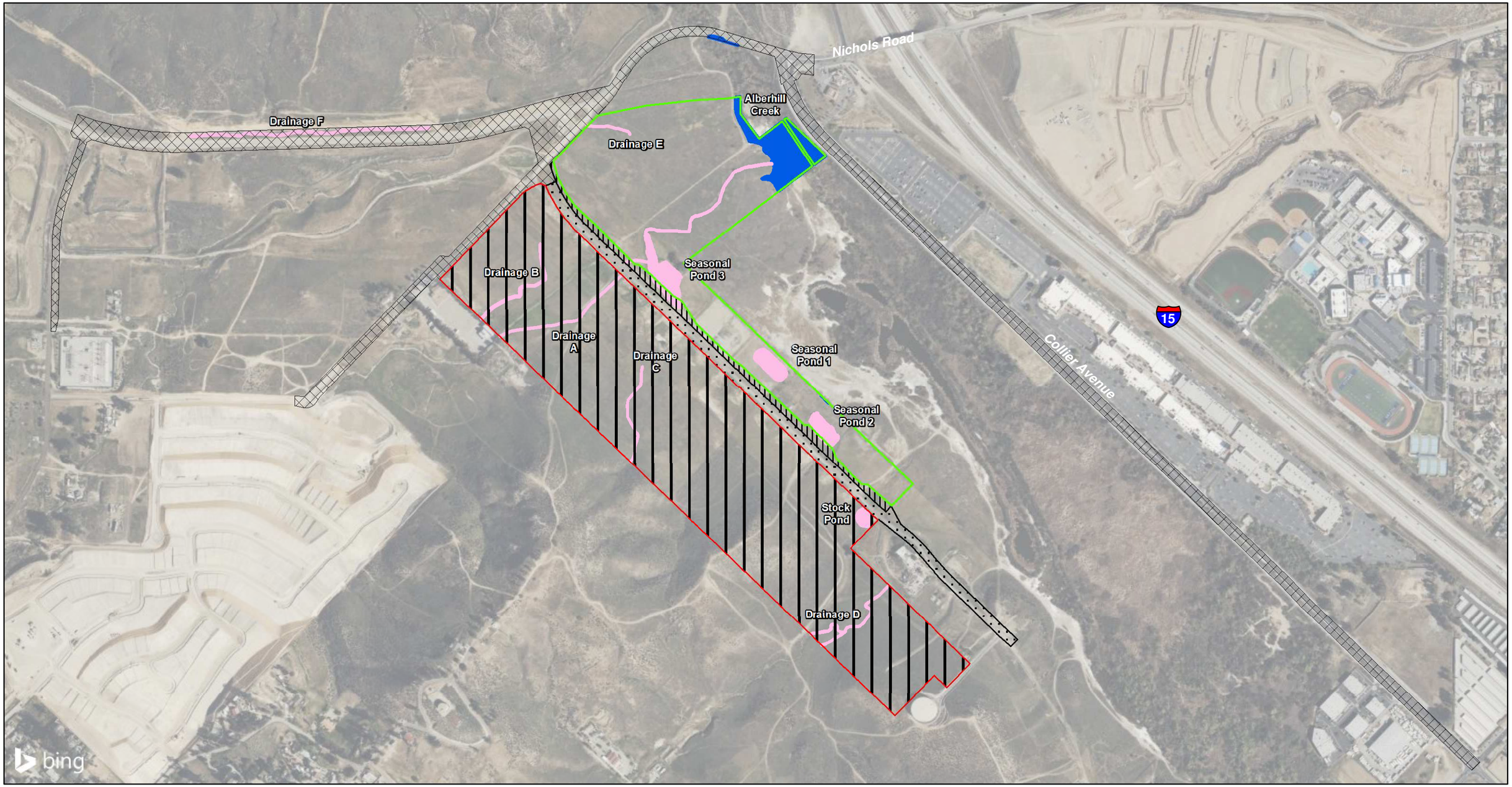
BAKER INDUSTRIAL PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 8

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- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Wetland Waters of the U.S.
- Non-Jurisdictional Feature

N

0 275 550 1,100

Feet

1 inch = 575 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, 2025

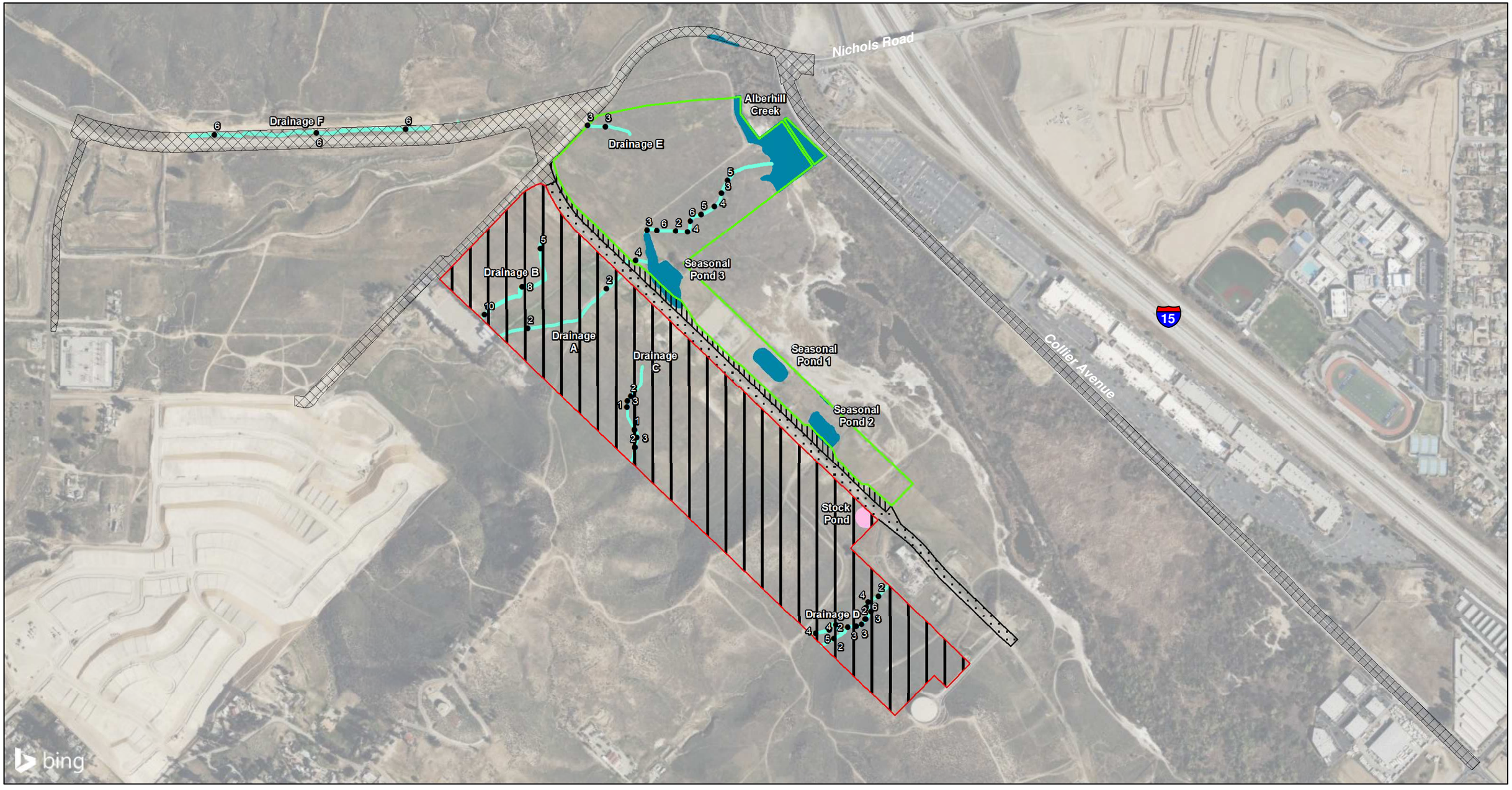
BAKER INDUSTRIAL PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9A

X:\1100 AFTER THE REST\1514-05BKIN\GIS\ImpactsGIS\1514-05_Corps.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Non-Wetland Waters of State
- Wetland Waters of the State
- Non-Jurisdictional Feature
- Width in Feet

N

0 275 550 1,100

Feet

1 inch = 575 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, 2025

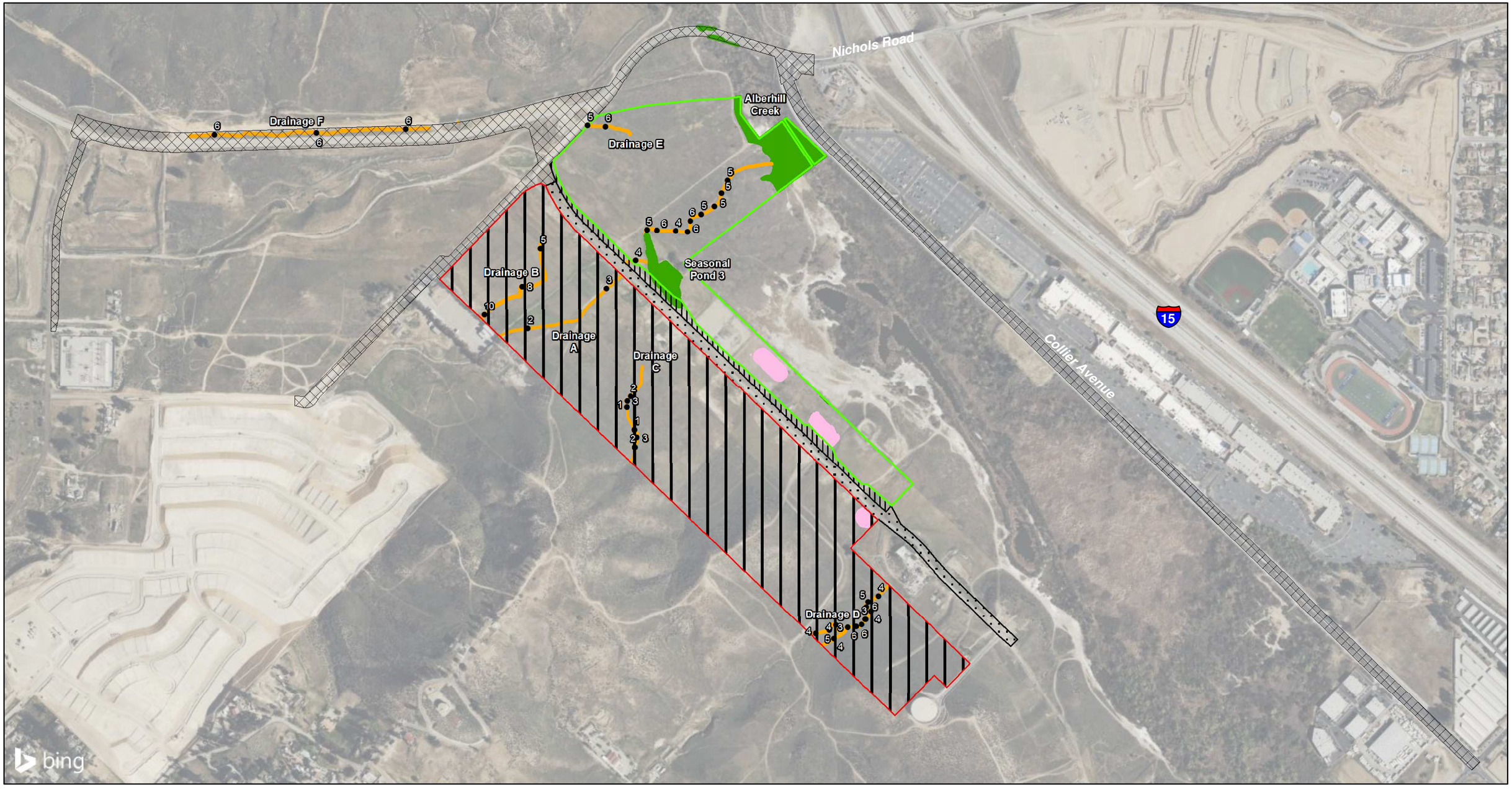
BAKER INDUSTRIAL PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B

X:\1100 AFTER THE REST\1514-05BKIN\GIS\ImpactsGIS\1514-05_RWQCB.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- CDFW Non-Riparian Stream
- CDFW Riparian
- Non-Jurisdictional Feature
- Width in Feet

N

0 275 550 1,100

Feet

1 inch = 575 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, 2025

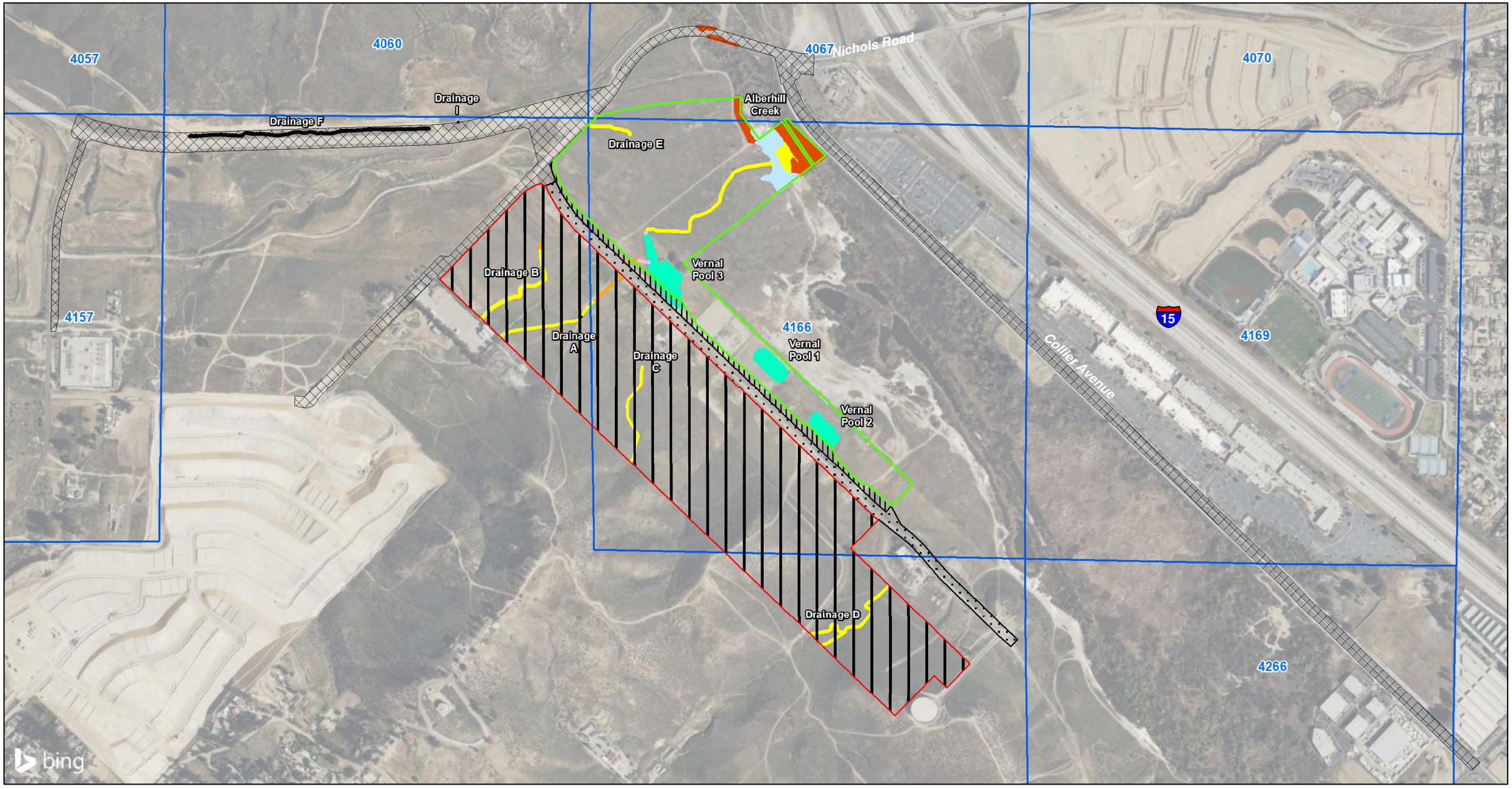
BAKER INDUSTRIAL PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9C

X:\1100 AFTER THE REST\1514-05BKIN\GIS\ImpactsGIS\1514-05_CDFW.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Alkali Grassland
- Alkali Playa
- Disturbed Semi-Natural Herbaceous Grassland
- Disturbed/Developed
- Open Water
- Semi-Natural Herbaceous Grassland
- Southern Willow Riparian Scrub
- Vernal Pool

N

0 275 550 1,100
Feet

1 inch = 575 feet

Approximately 0.06 acre of riparian habitat consists of overhanging willow limbs within the existing right-of-way of Nichols Road. The Project will not remove the overhanging riparian vegetation.

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: April 28, 2025

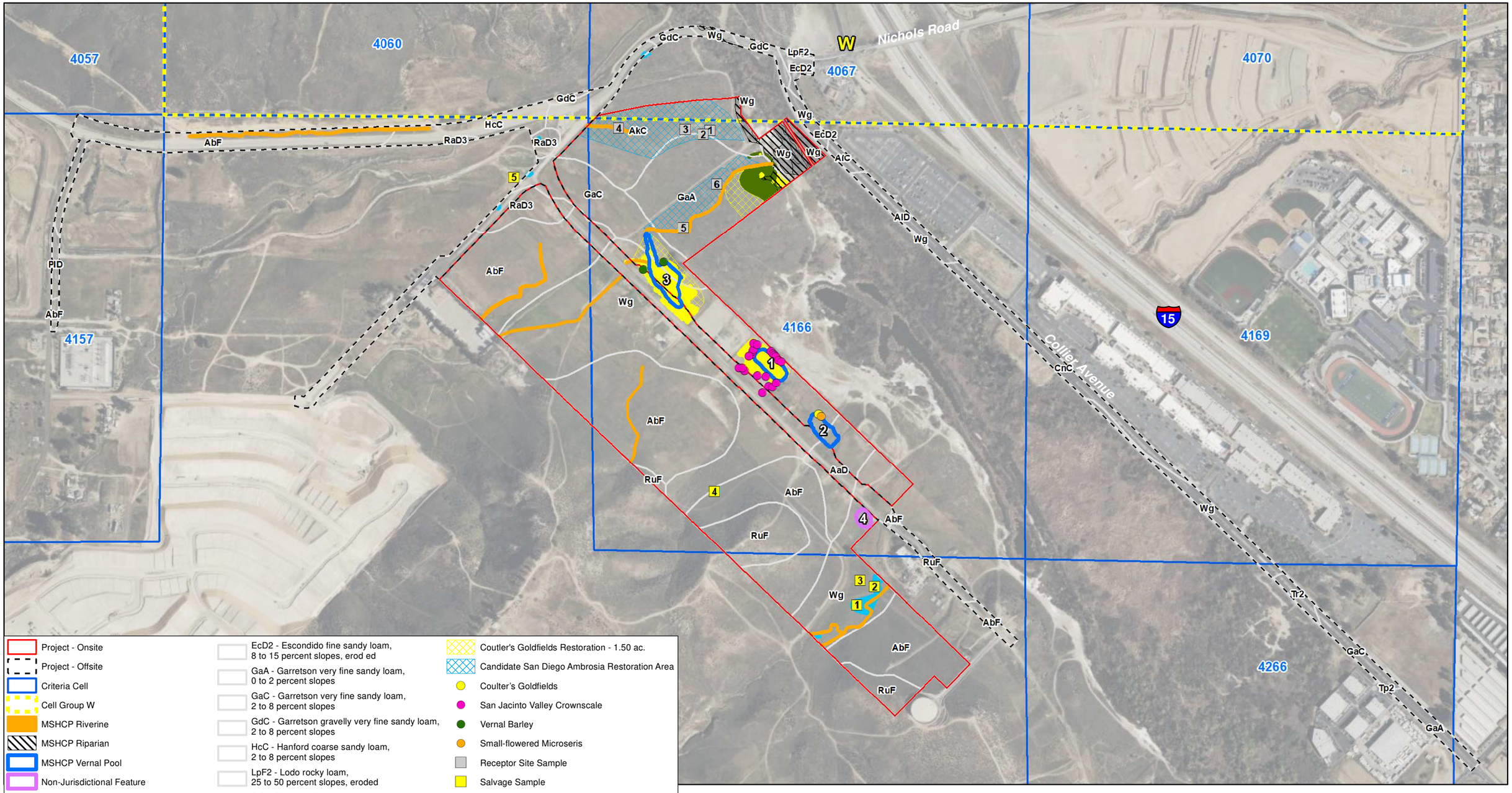
BAKER INDUSTRIAL PROJECT

MSHCP Riparian/Riverine Areas and Vernal Pools

GLENN LUKOS ASSOCIATES

Exhibit 10

X:\1100 AFTER THE REST\1514-05BKIN\GIS\ImpactsGIS\1514-05_RipRiv.mxd



- Project - Onsite
- Project - Offsite
- Criteria Cell
- Cell Group W
- MSHCP Riverine
- MSHCP Riparian
- MSHCP Vernal Pool
- Non-Jurisdictional Feature
- AaD - Altamont clay, 5 to 15 percent slopes
- AbF - Altamont cobbly clay, 8 to 35 percent slopes
- AkC - Arbuckle loam, 2 to 8 percent slopes
- AlC - Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19
- AlD - Arbuckle gravelly loam, 8 to 15 percent slopes
- CnC - Cortina gravelly coarse sandy loam, 2 to 8 percent slopes
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, erod ed
- GaA - Garretson very fine sandy loam, 0 to 2 percent slopes
- GaC - Garretson very fine sandy loam, 2 to 8 percent slopes
- GdC - Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- PID - Placentia fine sandy loam, 5 to 15 percent slopes
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RuF - Rough broken land
- Tp2 - Traver loamy fine sand, eroded
- Tr2 - Traver loamy fine sand, saline-alkali, eroded
- Wg - Willows silty clay, saline-alkali

- Coutler's Goldfields Restoration - 1.50 ac.
- Candidate San Diego Ambrosia Restoration Area
- Coulter's Goldfields
- San Jacinto Valley Crownscale
- Vernal Barley
- Small-flowered Microseris
- Receptor Site Sample
- Salvage Sample

Habitat with Long-term Conservation Value

- Coutler's Goldfields (2.70 ac.)
- Vernal Barley (1.04 ac.)
- San Diego Ambrosia (0.44 ac.)

N

0 287.5 575 1,150

Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 5, 2025

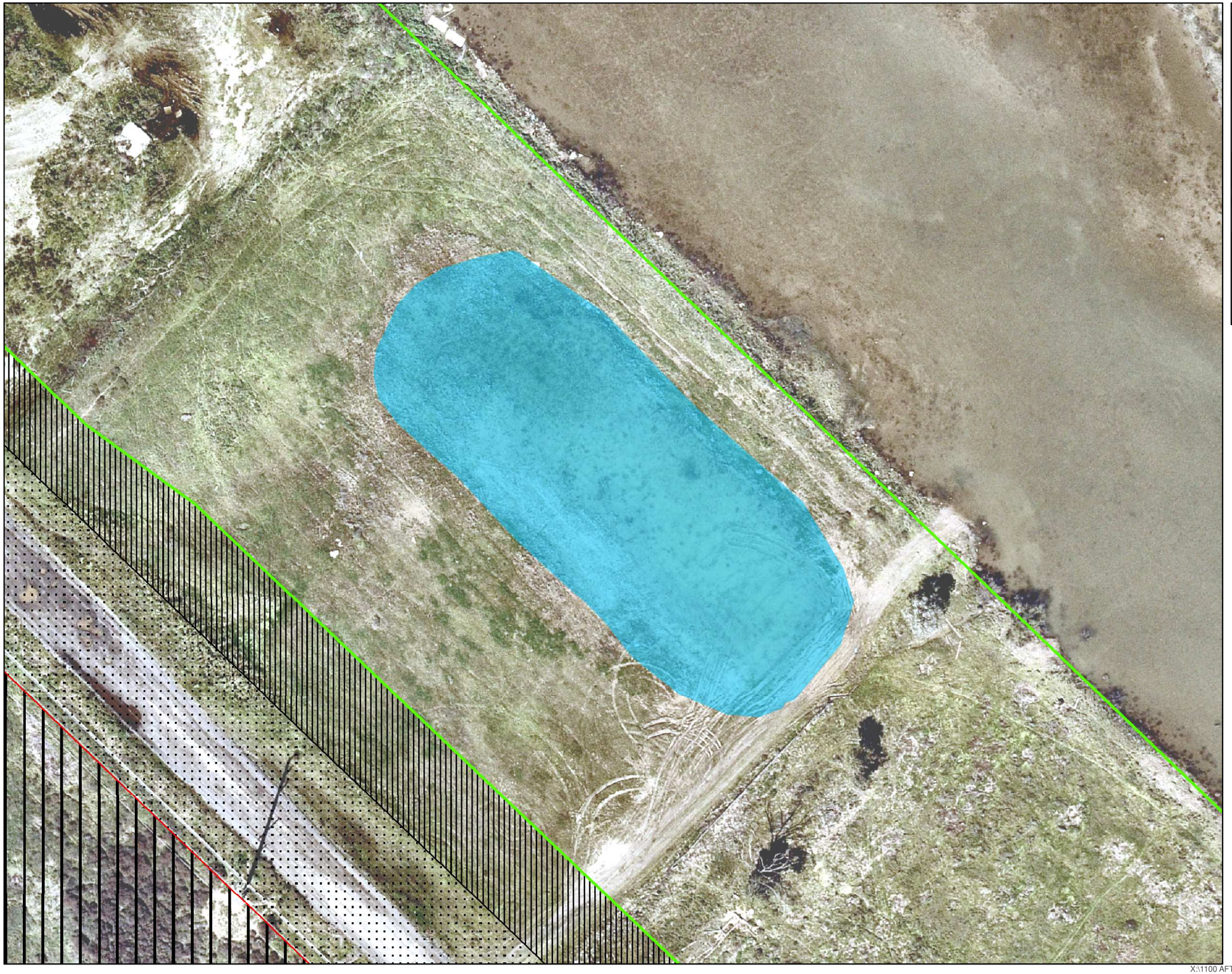
BAKER INDUSTRIAL PROJECT

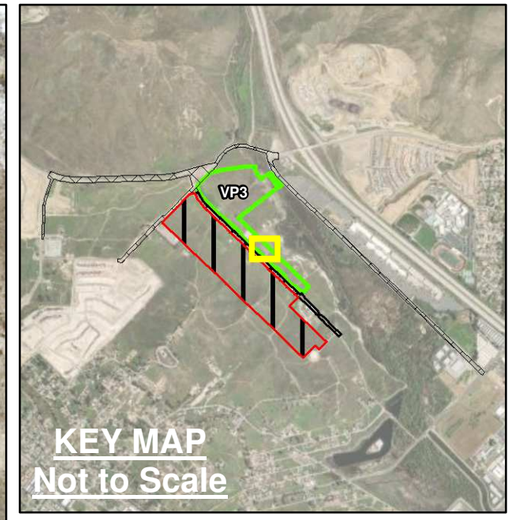
Plant Restoration Map

GLENN LUKOS ASSOCIATES

Exhibit 11

X:\1100 AFTER THE REST\1514-05BKIN\GIS\MitigationGIS\1514-05_Restoration.mxd





- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Vernal Pool 1 (0.45 ac.)

N

0 20 40 80

Feet

1 inch = 40 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 7, 2025

BAKER INDUSTRIAL PROJECT

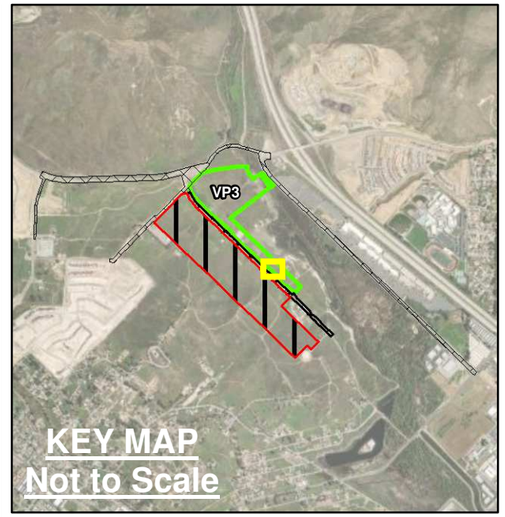
Vernal Pool 1 Avoidance Map

GLENN LUKOS ASSOCIATES

Exhibit 12A

X:\1100 AFTER THE REST\1514-05BKIN\GIS\MitigationGIS\1514-05_VernalPool1_Mitigation.mxd





- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Vernal Pool 2 - Impacted Area (0.01 ac.)
- Vernal Pool 2 - Avoided Area (0.39 ac.)
- Vernal Pool 2 - Expansion Area (0.03 ac.)

N

0 15 30 60

Feet

1 inch = 30 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 7, 2025

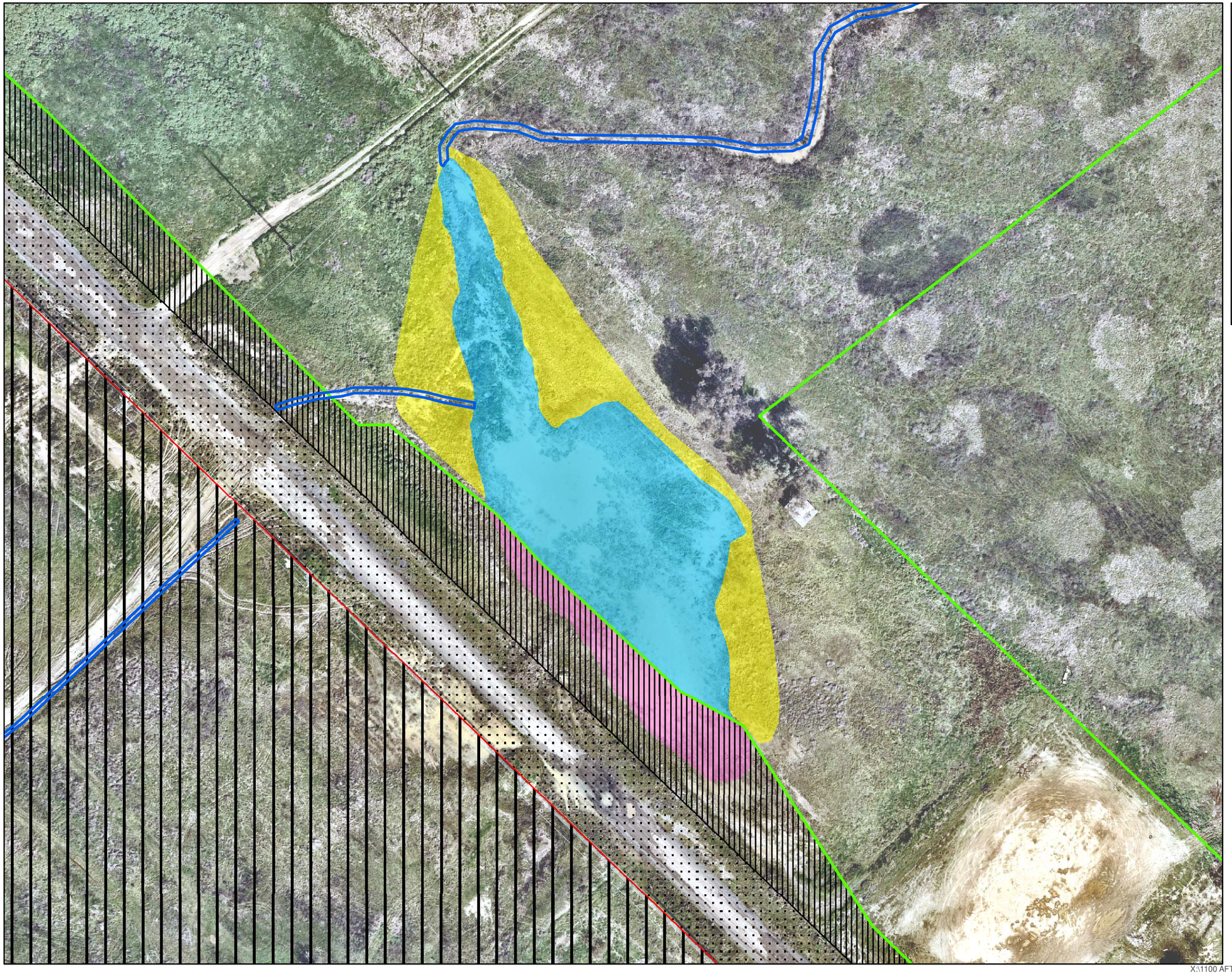
BAKER INDUSTRIAL PROJECT

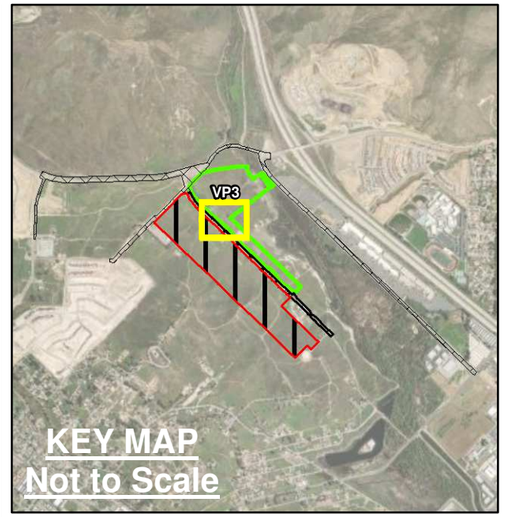
Vernal Pool 2 Proposed Mitigation Map

GLENN LUKOS ASSOCIATES

Exhibit 12B

X:\1100 AFTER THE REST\1514-05BKIN\GIS\MitigationGIS\1514-05_VernalPool2_Mitigation.mxd





- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Existing Drainage A
- Vernal Pool 3 - Impacted Area (0.16 ac.)
- Vernal Pool 3 - Avoided Area (0.71 ac.)
- Vernal Pool 3 - Expansion Area (0.48 ac.)

N

0 35 70 140

Feet

1 inch = 70 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 7, 2025

BAKER INDUSTRIAL PROJECT

Vernal Pool 3 Proposed Mitigation Map

GLENN LUKOS ASSOCIATES

Exhibit 12C

X:\1100 AFTER THE REST\1514-05BKIN\GIS\MitigationGIS\1514-05_VernalPool3_Mitigation.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Akali Grassland
- Alkali Playa
- Disturbed Semi-Natural Herbaceous Grassland
- Disturbed/Developed
- Open Water
- Riversidean Sage Scrub
- Semi-Natural Herbaceous Grassland
- Southern Willow Riparian Scrub
- Vernal Pool
- California Bumble Bee
- Crotch's Bumble Bee

N

0 275 550 1,100
Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 23, 2025

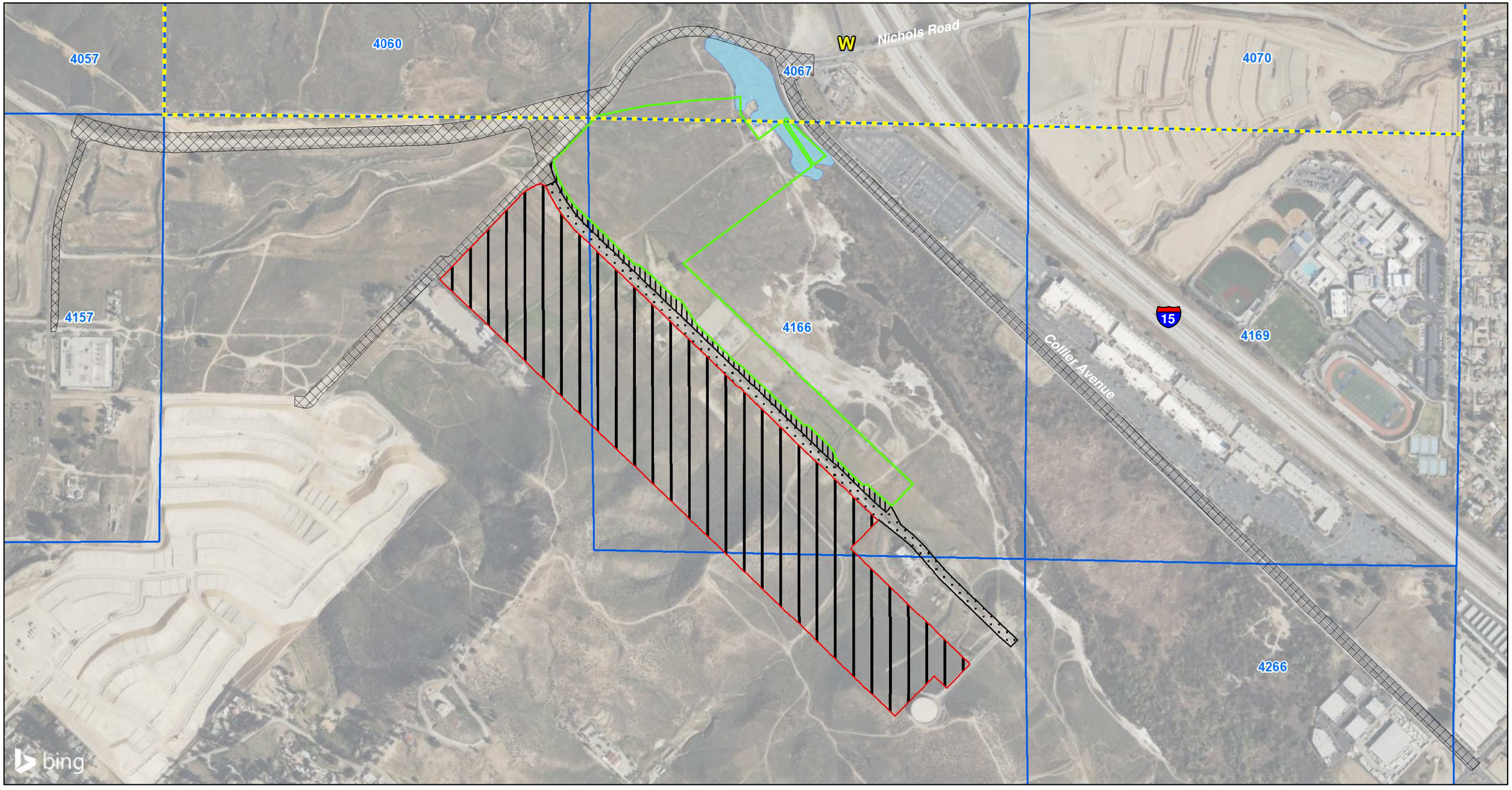
BAKER INDUSTRIAL PROJECT

Crotch's Bumble Bee Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 13

X:\1100 AFTER THE REST\1514-05BKIN\GIS\CBBGIS\1514-05_CBB.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Cell Group W
- LBV Habitat with LTCV

N

0 275 550 1,100

Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: May 5, 2025

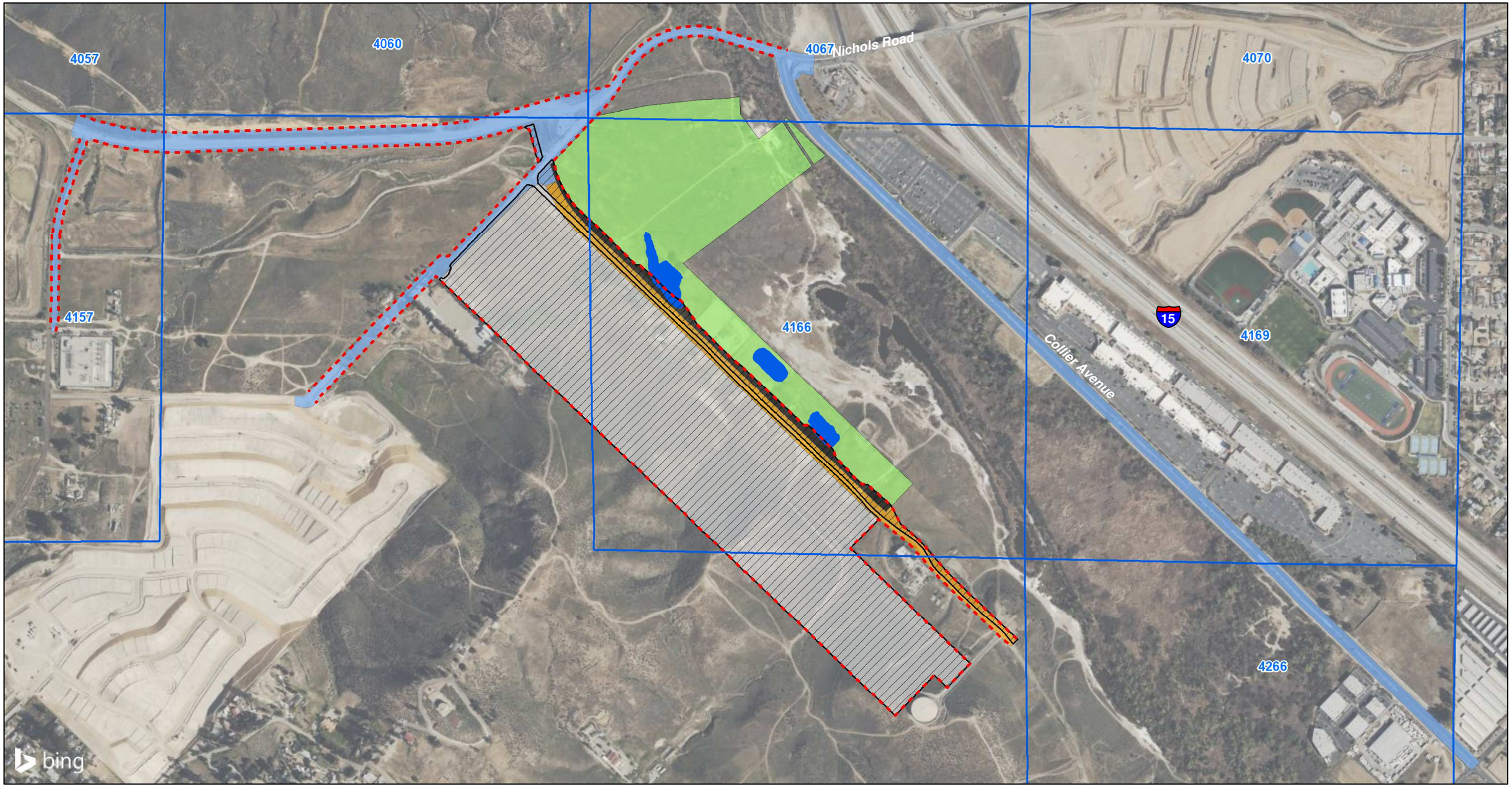
BAKER INDUSTRIAL PROJECT

LBV Habitat with LTCV Map

GLENN LUKOS ASSOCIATES

Exhibit 14

X:\1100 AFTER THE REST\1514-05BKIN\GIS\BirdsGIS\1514-05_LBV.mxd



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Exclusion Survey Areas
- Construction Fencing
- Vernal Pool

N

0 275 550 1,100

Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: July 2, 2025

BAKER INDUSTRIAL PROJECT

Western Spadefoot – Fencing and Exclusion Survey Areas

GLENN LUKOS ASSOCIATES

Exhibit 15

X:\1100 AFTER THE REST\1514-05BKIN\GIS\SensitiveSpeciesGIS\1514-05_Spadefoot.mxd



Photograph 1: Aerial view of the Project site looking north from the southern end. The photo depicts existing Baker Street with Vernal Pool 1 and 2 visible to the right of Baker Street. Vernal Pool 3 is farther north, past the developed compound. The onsite (Industrial) portion of the Project is left of Baker Street.



Photograph 2: Aerial view of the Project site looking south from northern end. The photo depicts the intersection of Baker Street and Pierce Street in the bottom of the photo with Baker Street extending to the south. The onsite (Industrial) portion of the Project is to the right of Baker Street.



Photograph 3: Aerial view depicting the proposed RCA Conserved Land. The Project will improve Baker Street and include the proposed City Maintenance Area to the left, with the remaining land to left proposed for conservation. Vernal Pool 3 is located in the right of the photo between Baker Street and the stand of eucalyptus trees.



Photograph 4: Aerial view depicting the portions of Alberhill Creek and the Collier Marsh that are not part of the Project's conservation. To the right of the creek floodplain are lands proposed as RCA Conserved Land by the Project. Vernal Pool 1 and 2 are visible in the right side of the photo, between the creek floodplain and Baker Street.



Photograph 5: View of Vernal Pool 1 looking west. The photo depicts Coulter's goldfields.



Photograph 6: View of Vernal Pool 1 looking south.



Photograph 7: View of San Jacinto Valley crownscale associated with Vernal Pool 1.



Photograph 8: View of Vernal Pool 2 looking south.



Photograph 9: View of Drainage A looking downstream (east).



Photograph 10: View of Drainage D looking downstream (southeast).



Photograph 11: View of San Diego ambrosia near Baker Street and Pierce Street.



Photograph 12: View of Coulter's goldfields near Vernal Pool 3.



Photograph 13: View of Crotch's bumble bee on white sage.



Photograph 14: View of Crotch's bumble bee on California buckwheat.



Photograph 15: Alternate view of Crotch's bumble bee on white sage.



Photograph 16: View of Crotch's bumble bee on palo verde.

Appendix A

Floral Compendium

Appendix A

Floral Compendium

Taxonomy sourced from The Jepson Manual (2012) and Jepson eFlora (2023). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al. (2004) and Roberts (2008).

* Non-native/Introduced species

SCIENTIFIC NAME	COMMON NAME	SPECIAL STATUS
MAGNOLIIDS		
Saururaceae – Anemopsis Family		
Anemopsis californica	Yerba mansa	
MONOCOTS		
Arecaceae – Palm Family		
**Phoenix canariensis*	Canary island date palm	
**Washintonia robusta*	Mexican fan palm	
Cyperaceae – Sedge Family		
Bolboschoenus maritimus ssp. *paludosus*	Saltmarsh bulrush	
Juncaceae – Rush Family		
Juncus bufonius	Common toad rush	
Liliaceae – Lily Family		
Calochortus splendens	Splendid mariposa	
Poaceae – Grass Family		
**Avena barbata*	Slim oat	
**Bromus diandrus*	Ripgut	
**Bromus hordeaceus*	Soft chess	
**Bromus madritensis* ssp. *rubens*	Red brome	
**Cynosurus echinatus*	Dogtail grass	
Distichlis spicata	Salt grass	
**Festuca myuros*	Rattail fescue	
Hordeum intercedens	Vernal barley	CRPR 3.2
**Hordeum marinum*	Seaside barley	
**Hordeum murinum*	Foxtail barley	
**Phalaris aquatica*	Harding grass	

**Schismus barbatus*	common Mediterranean grass	
Themidaceae – Brodiaea Family		
Bloomeria crocea var. *aurea*	Common goldenstar	
Dichelostemma capitatum	Blue dicks	
EUDICOTS		
Aizoaceae – Iceplant Family		
**Mesembryanthemum nodiflorum*	Small flowered iceplant	
Amaranthaceae – Amaranth		
**Atriplex semibaccata*	Australian saltbush	
**Salsola tragus*	Russian thistle	
Apiaceae – Carrot Family		
Apiastrum angustifolium	Wild celery	
Sanicula bipinnatifida	Purple sanicle	
Asteraceae – Sunflower Family		
Ambrosia psilostachya	Western ragweed	
Ambrosia pumila	San diego ambrosia	CRPR 1B.1
Artemisia californica	Coastal sage brush	
Baccharis pilularis	Coyote brush	
Baccharis salicifolia	Mulefat	
Chaenactis glabriuscula	Common yellow chaenactis	
Corethrogyne filaginifolia	Common sandaster	
Deinandra fasciculata	Clustered tarweed	
Encelia californica	California Encelia	
Ericameria palmeri	Palmer goldenweed	
Eriophyllum confertiflorum var. *confertiflorum*	Golden yarrow	
Helianthus annuus	Western sunflower	
Isocoma menziesii	Menzies' goldenbush	
**Lactuca serriola*	Prickly lettuce	
Lasthenia californica	Goldfields	
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	CRPR 1B.1
Layia platyglossa	Tidy tips	
Microseris douglasii ssp. platycarpha	Small flowered microseris	CRPR 4.2
**Oncosiphon piluliferum*	Stinknet	
Pseudognaphalium californicum	Ladies' tobacco	
**Pseudognaphalium luteoalbum*	Jersey cudweed	
Psilocarphus brevissimus var. *brevissimus*	Woolly marbles	
**Senecio vulgaris*	Common groundsel	

**Sonchus asper*	Spiny sowthistle	
**Sonchus oleraceus*	Sow thistle	
Boraginaceae – Borage		
Amsinckia intermedia	Common fiddleneck	
Phacelia minor	Wild canterbury bells	
Pholistoma auritum	Fiesta flower	
Plagiobothrys leptocladus	Alkali popcorn flower	
Brassicaceae – Mustard		
**Brassica nigra*	Black mustard	
**Brassica tournefortii*	Saharan mustard	
**Hirschfeldia incana*	Summer mustard	
**Sisymbrium irio*	London rocket	
Chenopodiaceae – Goosefoot Family		
Atriplex argentea	Silverscale saltbush	
Atriplex coronata var. *notatior*	San Jacinto valley crownscale	CRPR 1B.1
Atriplex lentiformis	Big saltbush	
**Salsola tragus*	Russian thistle	
Suaeda nigra	Bush seepweed	
Convolvulaceae – Morning-Glory		
Calystegia macrostegia	Island morning glory	
Cressa truxillensis	Alkali weed	
Crassulaceae – Stonecrop Famliy		
Crassula connata	Sand pygmy weed	
Cucurbitaceae – Gourd Family		
Marah macrocarpa	Wild cucumber	
Euphorbiaceae – Spurge Family		
Euphorbia albomarginata	Rattlesnake sandmat	
Fabaceae – Legume Family		
Lupinus bicolor	Lupine	
Lupinus microcarpus	Chick lupine	
Lupinus succulentus	Arroyo lupine	
**Medicago polymorpha*	California burclover	
**Melilotus indicus*	Annual yellow sweetclover	
**Parkinsonia aculeata*	Jerusalem thorn	
Trifolium gracilentum	Pin point clover	

Frankeniaceae – Frankenia Family		
Frankenia salina	Alkali heath	
Geraniaceae – Geranium Family		
**Erodium cicutarium*	Coastal heron's bill	
Lamiaceae – Mint Family		
**Marrubium vulgare*	White horehound	
Salvia columbariae	Chia sage	
Salvia mellifera	Black sage	
Malvaceaee – Mallow Family		
**Malva parviflora*	Cheeseweed	
Malvella leprosa	Alkali mallow	
Montiaceae – Miner's Lettuce Family		
Calandrinia menziesii	Red maids	
Plantaginaceae – Plantain Family		
Plantago erecta	California plantain	
Veronica peregrina	Neckweed	
Polemoniaceae – Phlox Family		
Gilia angelensis	Chaparral gilia	
Polygonaceae – Buckwheat Family		
Eriogonum fasciculatum	California buckwheat	
Ranunculaceae – Buttercup Family		
Delphinium parryi ssp. *parryi*	San Bernardino larkspur	
Rubiaceae – Madder Family		
Galium angustifolium	Narrow leaved bedstraw	
Salicaceae – Willow Family		
Salix gooddingii	Gooding's willow, black willow	
Salix laevigata	Polished willow	
Salix lasiolepis	Arroyo willow	
Tamaricaceae – Tamarisk Family		
**Tamarix ramosissima*	Tamarisk	

Urticaceae – Nettle Family		
**Urtica urens*	Annual stinging nettle	
Viburnaceae – Muskroot Family		
Sambucus nigra	Black elderberry	

Special Status Designations

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CRPR
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Appendix B

Faunal Compendium
(pending)

Appendix B

Faunal Compendium

Taxonomy and common names sourced from the California Wildlife Habitat Relationships System (CDFW 2016), the CNDDB for special status species, and the following taxa-specific sources: American Ornithological Society (2023) for birds; Collins and Taggart (2009) and Crother (2017) for reptiles and amphibians; and Wilson and Reeder (2005) for mammals.

* Non-native/introduced species

SPECIES	COMMON NAME	SPECIAL STATUS
INSECTS		
Apidae – Bees		
Bombus californicus	California bumble bee	
Bombus crotchii	Crotch's bumble bee	SC
AMPHIBIANS		
Ranidae – True Frogs		
**Lithobates catesbeianus*	American bullfrog	
Scaphiopodidae – Spadefoot Toads		
Spea hammondii	Western Spadefoot	SSC
REPTILES		
Phrynosomatidae – Horned Lizards		
Uta stansburiana	common side-blotched lizard	
BIRDS		
Accipitridae – Eagles, Hawks and Kites		
Accipiter cooperii	Cooper's hawk	
Buteo jamaicensis	red-tailed hawk	
Buteo lineatus	red-shouldered hawk	
Circus hudsonius =*Circus cyaneus*	northern harrier	SCC
Aegithalidae – Long-tailed Tits		
Psaltriparus minimus	bushtit	
Alaudidae - Larks		
Eremophila alpestris	horned lark	
Anatidae – Ducks, Geese and Swans		
Anas platyrhynchos	mallard	
Aythya americana	redhead	SSC

Branta canadensis	Canada goose	
Mareca americana *=Anas americana*	American wigeon	
Spatula clypeata		
Ardeidae – Herons, Egrets and Bitterns		
Ardea 2arolina	great blue heron	
Ardea alba	great egret	
Butorides virescens	green heron	
Egretta thula	snowy egret	
Nycticorax nycticorax	black-crowned night heron	
Cardinalidae – Cardinal-Grosbeaks		
Pheucticus melanocephalus	black-headed grosbeak	
Passerina caerulea	blue grosbeak	
Cathartidae – New World Vultures		
Cathartes aura	turkey vulture	
Charadriidae – Plovers, Lapwings, Dotterals and Killdeers		
Charadrius vociferus	killdeer	
Columbidae – Doves		
**Columba livia*	rock pigeon	
**Streptopelia decaocto*	Eurasian collared-dove	
Zenaida macroura	mourning dove	
Corvidae – Crows		
Corvus corax	common raven	
Falconidae – Falcons and Caracaras		
Falco sparverius	American kestrel	
Fringillidae – True Finches		
Haemorhous mexicanus *=Carpodacus mexicanus*	house finch	
Spinus psaltria	lesser goldfinch	
Hirundinidae – Swallows and Martins		
Hirundo rustica	barn swallow	
Petrochelidon pyrrhonota	cliff swallow	
Tachycineta bicolor	tree swallow	
Stelgidopteryx serripennis	northern rough-winged swallow	
Icteridae – Orioles, Blackbirds and Grackles		
Agelaius phoeniceus	red-winged blackbird	
Quiscalus mexicanus	great-tailed grackle	
Molothrus ater	brown-headed cowbird	
Icterus cucullatus	hooded oriole	
Sturnella neglecta	western meadowlark	
Euphagus cyanocephalus	Brewer's blackbird	

Mimidae – Mockingbirds, Catbirds and Thrashers		
Mimus polyglottos	northern mockingbird	
Parulidae – New World Warblers		
Geothlypis trichas	common yellowthroat	
Setophaga petechia =*Dendroica petechia*	yellow warbler	SSC
Setophaga coronata =*Dendroica coronata*	yellow-rumped warbler	
Passerellidae – New World Sparrows		
Pipilo maculatus	spotted towhee	
Zonotrichia leucophrys	white-crowned sparrow	
Melospiza melodia	song sparrow	
Melozone crissalis =*Pipilo crissalis*	California towhee	
Passerculus sandwichensis	savannah sparrow	
Passeridae – Old World Sparrows		
**Passer domesticus*	house sparrow	
Phalacrocoracidae – Cormorants		
Nannopterum auritum =*Phalacrocorax auritum*	double-crested cormorant	
Picidae – Woodpeckers		
Dryobates nuttallii =*Picoides nuttallii*	Nuttall's woodpecker	
Ptilogonatidae – Silky Flycatchers		
Phainopepla nitens	phainopepla	
Rallidae – Rails		
Fulica americana	American coot	
Porzana 3arolina	sora	
Recurvirostridae – Stilts and Avocets		
Himantopus mexicanus	black-necked stilt	
Recurvirostra americana	American avocet	
Scolopacidae – Sandpipers		
Tringa melanoleuca	greater yellowlegs	
Sturnidae – Starlings		
**Sturnus vulgaris*	European starling	
Threskiornithidae – Ibis and Spoonbills		
Plegadis chihi	white-faced ibis	
Trochilidae – Hummingbirds		
Calypte anna	Anna's hummingbird	
Troglodytidae – Wrens		
Cistothorus palustris	marsh wren	
Thryomanes bewickii	Bewick's wren	
Troglodytes aedon	house wren	

Tryannidae – Tyrant Flycatchers		
Sayornis nigricans	black phoebe	
Tyrannus vociferans	Cassin's kingbird	
Myiarchus cinerascens	ash-throated flycatcher	
Sayornis saya	Say's phoebe	
Vireonidae – Vireos		
Vireo bellii pusillus	least Bell's vireo	FE, SE
MAMMALS		
Leporidae – Rabbits and Hares		
Lepus californicus	black-tailed jackrabbit	
Sylvilagus audubonii	Audubon's cottontail	
Canidae - Canids		
Canis latrans	coyote	
Procyonidae - Raccoons		
Procyon lotor	raccoon	

Special Status Designations

Federal
FE – Federally Endangered
FT – Federally Threatened
FPE – Federally Proposed Endangered
FPT – Federally Proposed Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
FP – California Fully-Protected Species
SSC – Species of Special Concern

Appendix C

Report of Southwestern Willow Flycatcher Surveys

GLENN LUKOS ASSOCIATES

Regulatory Services

September 8, 2020

Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Submittal Report for Southwestern Willow Flycatcher Surveys for the 90.71-Acre Nichols Industrial Center Property Located in the City of Lake Elsinore, Western Riverside County, California.

Dear Ms. Love:

This letter report summarizes the methodology and findings of presence/absence surveys for the federally listed endangered southwestern willow flycatcher (***Empidonax traillii extimus***) ("SWWF") conducted by Glenn Lukos Associates, Inc. (GLA) within the above referenced property located in the City of Lake Elsinore, Riverside County, California. In addition, this report also provides the result of surveys for the federally listed endangered least Bell's vireo (***Vireo bellii pusillus***) ("LBV") that were conducted in conjunction with the flycatcher surveys.

The overall 90.71-acre property is divided into two parcels, including a 30.33-acre parcel proposed for conservation and a 60.38-acre parcel proposed for development. The surveys were conducted for a portion of Alberhill Creek that is mostly outside of, but adjacent to the parcel proposed for conservation, with only a small portion of riparian habitat coinciding with the boundary. SWWF surveys were conducted from May 18 through July 16, 2020 in all areas of suitable habitat in accordance with U.S. Fish and Wildlife Service (USFWS) guidelines. LBV surveys were conducted from April 13 through July 28, 2020 in all areas of suitable habitat in accordance with U.S. Fish and Wildlife Service (USFWS) guidelines. The SWWF was not detected during the focused surveys. One LBV male (presumed nesting) was detected immediately adjacent to the proposed conservation parcel and the riparian habitat occurring within that parcel is considered occupied habitat by the LBV.

1.0 INTRODUCTION

Least Bell's Vireo (LBV)

The LBV is a small, migratory songbird, which inhabits riparian habitats throughout southern California. The LBV is one of four subspecies of Bell's Vireo recognized by the American Ornithologist's Union (AOU 1957) and is the western-most subspecies, breeding entirely within California and northern Baja California. The LBV was officially designated as a state-endangered species on October 2, 1980 and achieved federally endangered status on May 2, 1986 (USFWS 1986).

The LBV generally begins arriving to its breeding grounds during the third week in March. The height of the breeding season generally extends from April 10 through July 31, although it can begin before and end later than these dates. During the breeding season, the LBV primarily occupies riverine riparian habitats that typically feature dense cover within 1-2 meters of the ground and a dense, stratified canopy. It inhabits low, dense riparian growth along water or along dry parts of intermittent streams. Typically, the species is associated with southern willow scrub, cottonwood forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, wild blackberry, or mesquite in desert localities.

The LBV primarily nests in small, remnant segments of vegetation typically dominated by willows and mule fat but may also use a variety of shrubs, trees, and vines. The birds forage in riparian and adjoining chaparral or scrub habitat (Salata 1983). Nests are typically built within one meter of the ground in the fork of willows (***Salix*** sp.), mule fat (***Baccharis salicifolia***), wild rose (***Rosa californica***), or other understory vegetation (Franzreb 1989). Cover surrounding nests is moderately open mid-story, with an overstory of willow, cottonwood, sycamore, or oak. Crown cover is usually more than 50 percent and contains occasional small openings. The most critical structural component to LBV breeding habitat is a dense shrub layer at one to three meters (three to 10 feet) above the ground (Goldwasser 1981, Franzreb 1989).

During the spring and fall migration, the LBV occupies a wider range of habitats including coastal sage scrub and woodland habitats. The LBV generally departs to its wintering grounds during August and September. The LBV winters in southern Baja California and central Mexico. Winter range habitat includes thorn scrub vegetation adjacent to watercourses or in riparian gallery forests along the west coast of north and central Mexico. The LBV generally does not occur within California during its wintering season, but some occurrences near San Diego have been documented. Decreases in populations of least Bell's vireo have been attributed to habitat degradation/destruction and cowbird parasitism.

Southwestern Willow Flycatcher (SWWF)

The SWWF is a small, migratory songbird, which inhabits riparian habitats throughout southern California and is one of four subspecies of willow flycatcher (WIFL) currently recognized. It was officially designated as a state-endangered species on January 2, 1991 and federally designated as endangered on March 29, 1995. The SWWF measures about 5.75 inches (15 cm) in length, and weighs only about 0.4 ounces (12 g). Overall, it is roughly the size of a small sparrow. Both sexes look alike. Its appearance is overall greenish or brownish gray above, with a white throat that contrasts with a pale olive breast. The belly is pale yellow. Two white wing bars are visible, but the eye ring is faint or absent. The upper mandible is dark and the lower mandible light (USGS). It closely resembles the other races of willow flycatcher, and several other species of the ***Empidonax*** genus, particularly the closely related Alder flycatcher (***Empidonax alnorum***). The SWWF breeds in relatively dense riparian habitats in all or parts of seven southwestern states, from near sea level to over 2,000 m (6,100 ft). More specifically, the SWWF breeds in riparian habitats along rivers, streams, or other wetlands, where relatively dense growths of trees and shrubs are established, near or adjacent to surface water or underlain by saturated soil (McCabe 1991). Common tree and shrub species comprising nesting habitat include willow (***Salix*** sp.), boxelder (***Acer negundo***), tamarisk (***Tamarix ramosissima***), and Russian olive (***Eleagnus angustifolia***) (USFWS 2002).

Habitat characteristics such as plant species composition, size and shape of habitat patch, canopy structure, vegetation height, and vegetation density vary across the subspecies range. However, regardless of the plant species composition or height, occupied sites usually consist of dense vegetation in the patch interior, or an aggregate of dense patches interspersed with openings. In most cases this dense vegetation occurs within the first 3-4 m (10-13 ft) above ground. These dense patches are often interspersed with small openings, open water or marsh, or shorter/sparser vegetation creating a mosaic that is not uniformly dense (USFWS 2002). The SWWF winters in Mexico and Central America and northern South America (Phillips 1948, Gorsiki 1969, McCabe 1991, Koronkiewicz et al. 1998, Unitt 1999).

2.0 SITE LOCATION AND DESCRIPTION

The Nichols Industrial Center Property (Property) in the City of Lake Elsinore, Riverside County, comprises approximately 90.71 acres, which as noted above consists of a 60.38-acre parcel to be developed and a 30.33-acre parcel to be conserved The overall Property is located immediately south of Collier Avenue and the Outlets at Lake Elsinore. Specifically, the Universal Transverse Mercator (UTM) coordinates approximately corresponding to the site are 466469.22 mE and 3729081.37 mN within Section 25, Township 5 South, and Range 5 West of the Lake Elsinore, California USGS 7.5-minute topographical maps [Exhibit 2 – Vicinity Map].

The Property is bordered by Collier Avenue to the north, Nichols Road to the west and is bisected by Baker Street. An aerial map depicting the Property is included in Exhibit 3.

Focused SWWF and LBV surveys focused included onsite and adjacent offsite riparian vegetation associated with Alberhill Creek [Exhibit 3]. The riparian habitat was comprised of a mixture of salt cedar (***Tamarix ramosissima***), black willow (***Salix gooddingii***), arroyo willow (***Salix lasiolepis***), and mulefat (***Baccharis salicifolia***), with alkali bulrush (***Bolboschoenus maritimus***) and cattail (***Typha*** sp.). Other common plants include common nettle (***Urtica dioca***), shortpod mustard (***Hirschfeldia incana***), western ragweed (***Ambrosia psilostachya***), saltgrass (***Distichlis spicata***), annual rabbitsfoot grass (***Polypogon monspeliensis***).

3.0 METHODOLOGY

Surveys for the SWWF were conducted in accordance with the 2010 U.S. Fish and Wildlife Service (USFWS) guidelines[1], which stipulate that five surveys (divided into three survey periods) shall be conducted in all areas of suitable habitat. One survey was conducted during the first survey period (May 15 to May 31). Two surveys were conducted during the second survey period (June 1 to June 24), and two surveys were conducted during the third survey period (June 25 to July 17). GLA biologist Jeff Ahrens (TE 052159-5) conducted SWWF surveys on May 18, June 9, June 23, July 1, and July 16, 2020.

Surveys for the LBV were conducted in accordance with the 2001 USFWS survey protocol, which stipulates all riparian areas and any other potential vireo habitats should be surveyed at least (8) times during the period from April 10 to July 31. GLA biologist Stephanie Cashin conducted LBV surveys on April 13 and June 19, 2020. Mr. Ahrens conducted LBV surveys on May 5 and May 18, 2020. GLA biologist April Nakagawa conducted LBV surveys on May 28, June 8, July 15, and July 28, 2020.

All surveys were conducted during the morning hours and were completed before 11:00 A.M. No surveys were conducted during extreme weather conditions (i.e., winds exceeding 15 miles per hour, rain, or temperatures in excess of 95ºF). All areas of suitable habitat were surveyed on foot by walking slowly and methodically. Taped vocalizations primarily using the WIFL's main contact call "fitz-bew" were used to elicit responses from WIFLs that might be present on site. The detection of WIFLs on site was based on both sight and call. The presence/absence of LBV was determined by identifying all birds by sight and call, aided by the use of binoculars. No taped vocalizations were used to elicit response from LBV or any other species potentially present.

[1] ***A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher***, prepared by the USGS.

Weather conditions during the LBV surveys were conducive to a high level of bird activity. Temperatures ranged from approximately 56 degrees Fahrenheit to 88 degrees Fahrenheit. Wind speeds ranged from 0-10 miles per hour during the surveys. Table 1 summarizes the survey dates and weather information for each survey date. Weather conditions during the SWWF surveys were conducive to a high level of bird activity. Temperatures ranged from approximately 53 degrees Fahrenheit to 73 degrees Fahrenheit. Wind speeds ranged from 0-2 miles per hour during the surveys. Table 2 summarizes the survey dates and weather information for each survey date.

Table 1. Summary of LBV Survey Dates and Weather Conditions

Date	Survey	Start/End Time	Surveyor	Temp ºF, (start/end)	Wind Speed (MPH) (start/end)	% Cloud Cover (start/end)
4/13/20	LBV	0620/1000	SC	60/68	0-1/0-1	100/100
5/5/20	LBV	0550/0920	JA	56/75	1-2/0-2	0/0
5/18/20	LBV	0550/1100	JA	57/69	1-2/1-2	80/50
5/28/20	LBV	0600/1100	AN	62/84	0-1/0-1	0/0
6/8/20	LBV	0645/1100	AN	58/75	8-10/8-10	0/0
6/19/20	LBV	0615/1015	SC	59/67	0-2/0-1	100/50
7/15/20	LBV	0645/1100	AN	62/77	0-1/0-1	100/0
7/28/20	LBV	0700/1100	AN	62/88	0-1/4-5	0/0

AN = April Nakagawa, JA = Jeff Ahrens, SC = Stephanie Cashin

Table 2. Summary of SWWF Survey Dates and Weather Conditions

Date	Survey	Start/End Time	Surveyor	Temp ºF, (start/end)	Wind Speed (MPH) (start/end)	% Cloud Cover (start/end)
5/18/20	SWWF	0550/1100	JA	57/69	1-2/1-2	80/50
6/9/20	SWWF	0600/0940	JA	53/73	1-2/1-2	0/0
6/23/20	SWWF	0555/1000	JA	58/68	0-1/0-1	100/0
7/1/20	SWWF	0555/0930	JA	60/66	1-2/1-2	100/100
7/16/20	SWWF	0550/0930	JA	59/72	1-2/0-1	30/0

4.0 RESULTS

GLA biologists did not detect the SWWF or any WIFL during the focused surveys within Alberhill Creek, including the portion that coincides with the proposed conservation parcel. The LBV was also not detected within the conservation parcel boundary. However, a male LBV (presumed nesting based on behavior) was detected within Alberhill Creek and during every LBV survey and generally within close proximity to the conservation parcel. Therefore, based on numerous detections of the LBV, the riparian habitat within the conservation parcel would also be considered occupied by the LBV.

Other sensitive species detected on site during the focused surveys included the yellow warbler (***Setophaga petechia***) and yellow breasted chat ***(Icteria virens***).

Common birds identified on or adjacent to the survey area include common yellowthroat (***Geothlypis trichas***), song sparrow (***Melospiza melodia***), house finch (***Carpodacus mexicanus***), lesser goldfinch (***Spinus psaltria***), mourning dove (***Zenaida macroura***), bushtit (***Psaltriparus minimus***), green heron (***Butorides virescens***), Nuttall's woodpecker (***Picoides nuttallii***), black phoebe (***Sayornis nigricans***), American avocet (***Recurvirostra americana***), black-necked stilt (***Himantopus mexicanus***), mallard (***Anas platyrhynchos***), pied-billed grebe (***Podilymbus podiceps***), northern rough-winged swallow (***Stelgidopteryx serripennis***), barn swallow (***Hirundo rustica***), and Anna's hummingbird (***Calypte anna***).

Exhibits 3 and 4 depict the LBV territory on an aerial map and topographic map, respectively. A compendium listing all avian species detected during the focused surveys is included at the end of the report.

If you have any questions, please contact me at jahrens@wetlandpermitting.com or (949) 340-2521.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.



TE-052159-5	September 2, 2020
Permit #	Date

Jeff Ahrens
Biologist

p:1476-2.WIFLd_(2020).rpt

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APPENDIX A

AVIAN COMPENDIUM

The avian compendium lists bird species identified on the Site.

* = non-native species

ACCIPITERIDAE	**Hawks, Old World Vultures and Harriers**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	red-tailed hawk
Buteo lineatus	red-shouldered hawk
Circus hudsonius	northern harrier
AEGITHALIDAE	**Bushtit**
Psaltriparus minimus	bushtit
ALAUDIDAE	**Larks**
Eremophila alpestris actia	California horned lark
ANATIDAE	**Ducks**
Anas cyanoptera	cinnamon teal
Anas platyrhynchos	mallard
Aythya americana	redhead
Mareca strepera	gadwall
Oxyura jamaicensis	ruddy duck
Spatula clypeata	northern shoveler
APODIDAE	**Swifts**
Aeronautes saxatalis	white-throated swift
ARDEIDAE	**Herons, Bitterns, and Allies**
Ardea alba	great egret
Ardea herodias	great blue heron
Butorides virescens	green heron
Egretta thula	snowy egret
Nycticorax	black-crowned night heron
CARDINALIDAE	**Cardinals, Grosbeaks And Allies**
Passerina caerulea	blue grosbeak
Pheucticus melanocephalus	black-headed grosbeak
CATHARTIDAE	**New World Vultures**
Cathartes aura	turkey vulture

CHARADRIIDAE		**Plovers And Relatives**
	Charadrius vociferus	killdeer
COLUMBIDAE		**Pigeons and Doves**
*	***Columba livia***	rock pigeon
	Streptopelia decaocto	Eurasian collared dove
	Zenaida macroura	mourning dove
CORVIDAE		**Jays, Magpies and Crows**
	Aphelocoma californica	California scrub-jay
	Corvus corax	common raven
EMBERIZIDAE		**Emberizines**
	Melospiza melodia	song sparrow
	Melozone crissalis	California towhee
	Pipilo maculates	spotted towhee
FALCONIDAE		**Falcons and Caracaras**
	Falco peregrinus	peregrine falcon
	Falco sparverius	American kestrel
FRINGILLIDAE		**Finches**
	Carduelis psaltria	lesser goldfinch
	Carpodacus mexicanus	house finch
	Spinus lawrencei	Lawrence's goldfinch
	Spinus tristis	American goldfinch
HIRUNDINIDAE		**Swallows**
	Hirundo rustica	barn swallow
	Petrochelidon pyrrhonota	cliff swallow
	Stelgidopteryx serripennis	northern rough-winged swallow
ICTERIDAE		**Blackbirds**
	Agelaius phoeniceus	red-winged blackbird
	Euphagus cyanocephalus	Brewer's blackbird
	Icterus cucullatus	hooded oriole
	Molothrus ater	brown-headed cowbird
	Quiscalus mexicanus	great-tailed grackle
	Sturnella neglecta	western meadowlark
LARIDAE		**Skuas, Gulls, Terns And Skimmers**
	Larus californicus	California gull
MIMIDAE		**Mockingbirds and Thrashers**
	Mimus polyglottos	northern mockingbird

PARULIDAE	**Wood Warblers and Relatives**
Cardellina pusilla	Wilson's warbler
Geothlypis trichas	common yellowthroat
Icteria virens	yellow-breasted chat
Oreothlypis celata	orange-crowned warbler
Setophaga coronata	yellow-rumped warbler
Setophaga petechial	yellow warbler
PHALACROCORACIDAE	**Cormorants**
Phalacrocorax auritus	double-crested cormorant
PICIDAE	**Woodpeckers**
Picoides nuttallii	Nuttall's woodpecker
PODICIPEDIDAE	**Grebes**
Aechmophorus clarkii	Clark's grebe
Podilymbus podiceps	pied-billed grebe
POLIOPTILIDAE	**Gnatcatchers**
Polioptila caerulea	blue-gray gnatcatcher
PTILIOGONATIDAE	**Silky-flycatchers**
Phainopepla nitens	phainopepla
RALLIDAE	**Rails, Gallinules And Coots**
Fulica americana	American coot
Porphyrio martinicus	common gallinule
Porzana carolina	sora
RECURVIROSTRIDAE	**Stilts and Avocets**
Himantopus mexicanus	black-necked stilt
Recurvirostra americana	American avocet
SCOLOPACIDAE	**Sandpipers**
Limnodromus scolopaceus	long-billed dowitcher
STURNIDAE	**Starlings**
* ***Sturnus vulgaris***	European starling
TROCHILIDAE	**Hummingbirds**
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
TROGLODYTIDAE	**Wrens**
Cistothorus palustris	marsh wren

Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
TYRANNIDAE	**Tyrant Flycatchers**
Empidonax difficilis	Pacific-slope flycatcher
Myiarchus cinerascens	ash-throated flycatcher
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus vociferans	Cassin's kingbird
VIREONIDAE	**Vireos**
Vireo bellii pusillus	least Bell's vireo

Source: ESRI World Street Map



N

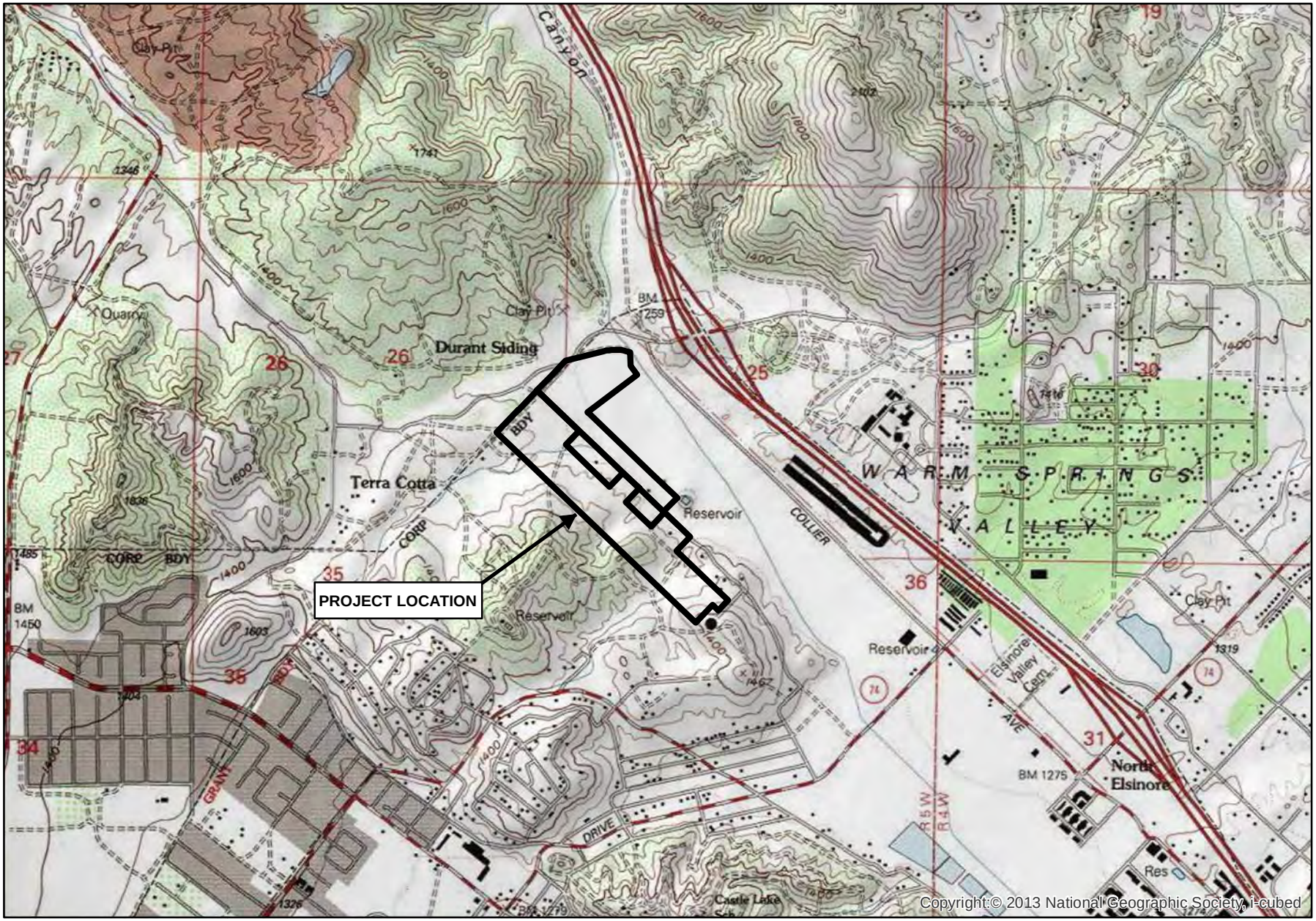
0 2 4 8 Miles

NICHOLS INDUSTRIAL CENTER PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Lake Elsinore, CA quadrangle

N

0 1,000 2,000 4,000 Feet

NICHOLS INDUSTRIAL CENTER PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Proposed Development

Proposed Conservation

Least Bell's Vireo Territory

N

0 225 450 900

Feet

1 inch = 450 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 7, 2020

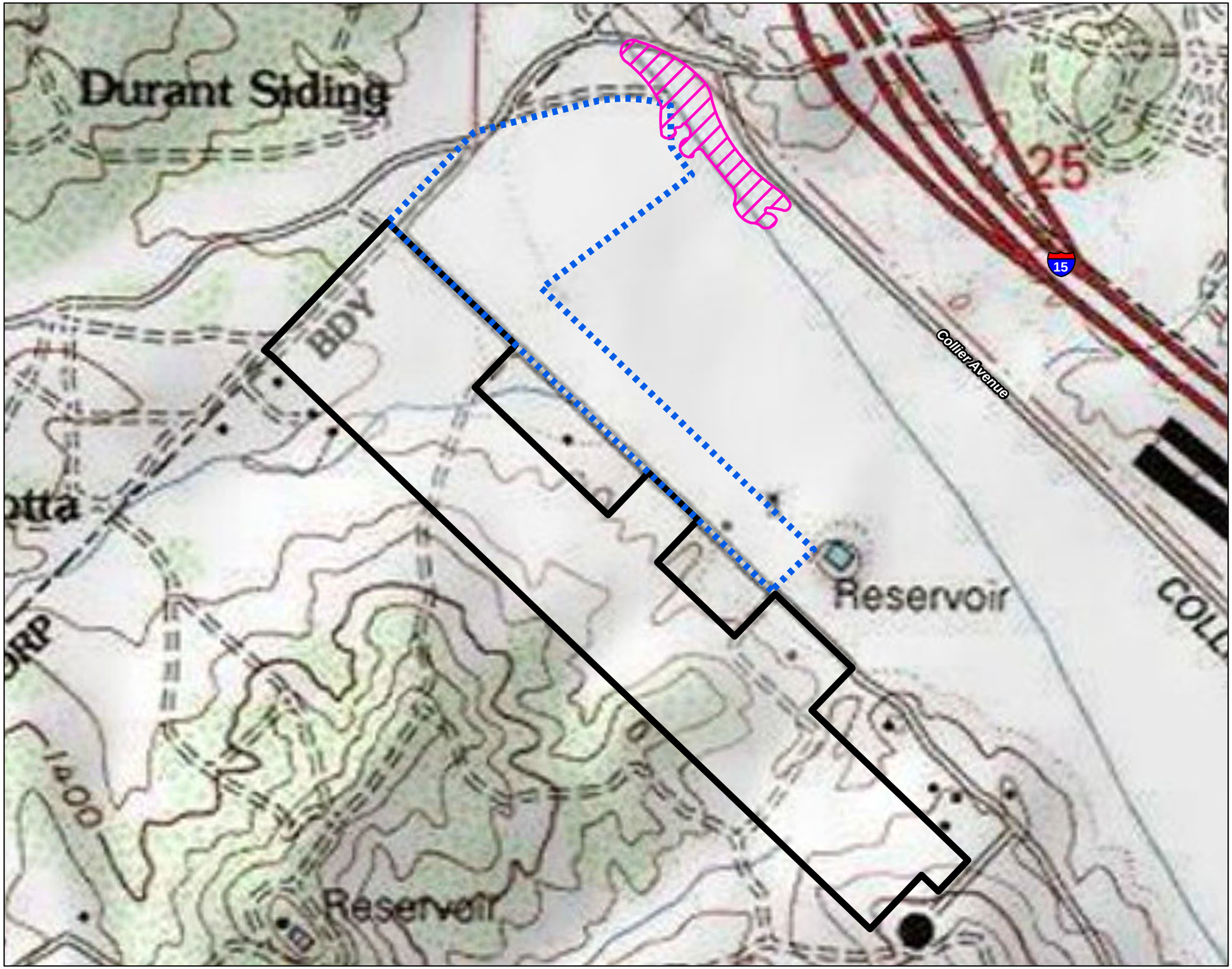
NICHOLS INDUSTRIAL CENTER PROJECT

Least Bell's Vireo Location Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\1100 AFTER THE REST\1476-02NICH\1476-2_GIS\BIO_GIS\Birds\1476-2_LBV.mxd



Proposed Development

Proposed Conservation

Least Bell's Vireo Territory

N

0 225 450 900

Feet

1 inch = 450 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 7, 2020

NICHOLS INDUSTRIAL CENTER PROJECT

Least Bell's Vireo Location Map with Topo

GLENN LUKOS ASSOCIATES

Exhibit 4

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Appendix D

Report of Dry Season Fairy Shrimp Surveys

GLENN LUKOS ASSOCIATES

Regulatory Services

August 9, 2024 [Revised August 12, 2024]

Ms. Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Submittal Requirements for 2023/2024 Dry Season Survey for Listed Branchiopods Conducted for the Baker Industrial Project Site, City of Lake Elsinore, Riverside County, California

Dear Ms. Love:

This letter report documents the results of a dry season survey conducted by Glenn Lukos Associates, Inc. (GLA) for four depressional features at the Baker Industrial Project Site (Project) in the City of Lake Elsinore, Riverside County, California. GLA notified the U.S. Fish and Wildlife Service (USFWS) on August 24, 2023, of the intent to perform the dry season surveys, and conducted the dry season soil collection on October 19 and November 2, 2023.

GLA biologist David Moskovitz (PER0010680-0) performed the soil collection from the features, with assistance from GLA biologist Stephanie Cashin (TE-20280D-0) and Chris Waterston (ESPER2380694), and from GLA trainee David Smith (under supervision). D. Christopher Rodgers (TE-796284-7) processed the soil samples to determine cyst presence/absence and species identification. Appendix A is the report summarizing the results of soil analysis, which was provided to GLA in final form on April 8, 2024.

I. SITE LOCATION AND DESCRIPTION

The Project is located in the City of Lake Elsinore, Riverside County, California [Exhibit 1 – Regional Map] within Section 25, Township 5 South, and Range 5 West as depicted on the U.S. Geological Survey (USGS) topographic map Lake Elsinore, California [dated 1953 and photorevised in 1988] [Exhibit 2 – Vicinity Map]. APNs for the Project are 378-020-024, -037, and -040

The Project site is generally bordered by Nichols Road to the north, rural and undeveloped land to the south and west, and Collier Street to the east. The site is bisected by Baker Street. The fairy shrimp survey area includes four depressional features [Exhibit 3 – Fairy Shrimp Survey Area Map].

The approximate UTM coordinates of the features within the fairy shrimp survey area are:

- Feature 1: Zone 11 south; 466368.8 mE and 3729343.4 mN
- Feature 2: Zone 11 south; 466598.7 mE and 3729130.8 mN
- Feature 3: Zone 11 south; 466699.7 mE and 3729015.1 mN
- Feature 4: Zone 11 south; 466773.4 mE and 3728854.4 mN

II. DESCRIPTION OF THE DEPRESSIONAL FEATURES

The survey included four depressional features that were documented to pond seasonally. These depressions are referenced as Features 1, 2, 3, and 4 and are described below. Features 1, 2, and 3 are located east of Baker Street and elevated on a terrace above the adjacent offsite Alberhill Creek floodplain. Feature 4 is located west of Baker Street. The extent of each ponded feature was based on mapping conducted in during 2024 surveys.

Feature 1

Feature 1 is located near the center of the Project site on the east side of Baker Street. The extent of ponding was estimated at 0.45 acre (849.83 square meters). Feature 1 was vegetated predominantly around the edges and was observed to be unvegetated with cracked soil in the center of the feature. Vegetation on the perimeter of the feature included salt grass (*Distichlis spicata*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*), vernal barley (*Hordeum intercedens*), silverscale saltbush (*Atriplex agentea*), alkali weed (*Cressa truxillensis*), and small flowered ice plant (*Mesembryanthemum nodiflorum*).

Feature 2

Feature 2 is located near the center of the Project site east of Baker Street. The extent of ponding was estimated at 0.40 acre (1,618.74 square meters). Feature 2 was mostly unvegetated with a small patch of alkali bulrush (*Bolboschoenus maritimus*) and brome grasses (*Bromus sp.*) along the edges.

Feature 3

Feature 3 is the largest and northern most ponded feature within the Project site located east of Baker Street. The maximum extent of ponding was estimated at 0.87 acre (2,549.52 square meters). The center of the feature was mostly unvegetated with deeply cracked soils. Vegetation located around the edges included a large population of Coulter's goldfields intermixed with annual bromes and vernal barley. Additional species include hairy leaved sunflower (*Helianthus annuus*) and alkali weed.

Feature 4

Feature 4 is a created basin (stock pond) adjacent to the west side of Baker Road. The maximum extent of ponding was estimated at 0.17 acre (323.74 square meters). Vegetation within the feature included hairy leaved sunflower, curly dock (*Rumex crispus*), and summer mustard (*Hirschfeldia incana*). Plant species around the edges included soft chess (*Bromus hordeaceus*), one large tamarisk (*Tamarix ramosissima*), five-hook bassia (*Bassia hyssopifolia*), and tocalote (*Centaurea melitensis*).

III. METHODOLOGY

A. Soil Collection

Soil sample collection and processing followed the USFWS *Survey Guidelines for the Listed Large Branchiopods*, November 13, 2017 (USFWS 2017). Soil sample collection was conducted by GLA biologist David Moskovitz with assistance from Stephanie Cashin and Chris Waterston; and GLA biologist, David Smith (under supervision) on October 19 and November 2, 2023.

The number of samples collected for Features 1, 2, and 4 equated to 50 samples each and Feature 3 equaled 100 samples following the Soil Sample Summary (Table 1) summarized in the USFWS 2017 Survey Guidelines. Soil sub-sampling locations were distributed in a grid pattern to cover the entire feature with targeted collection in the lowest topographic areas that would potentially exhibit past aquatic invertebrate accumulation.

Soil samples of approximately 100 milliliters each were removed at each sub-sample location using a hand trowel and were combined into a labeled bag for each feature with the collection date, location, feature ID, and name of collector for future processing. Samples were stored in a dry location out of direct sunlight until shipped for processing.

Dry Season Fairy Shrimp Survey results are depicted in Exhibit 4 [2023-2024 Dry Season Fairy Shrimp Survey Results]. Representative site photographs are included as Exhibit 5.

Table 1 – Soil Sample Summary

Feature Size		Number of Samples Collected per Pool	Number of Pools of Each Feature Size Class
Square Meters	Approx. Acreage		
< 2.5	0.0005	As appropriate	NA
2.5–24	0.005	10	NA
25–235	0.05	25	NA
236–2300	0.5	50	3
2300–23,225	5.0	100	1
Total Pools Sampled			4

B. Soil Processing and Culturing Analysis

According to the soil processing report [Appendix A], soil samples were prepared for analysis by dissolving the clumps of soil in water and sieving material through 300- and 150-micron (µm) pre sized screens. The portions of material that remained in the sieves was dissolved in a brine solution to separate the organic material from the inorganic material. Retained soil was dried and examined under a microscope for large branchiopod cysts (embryonic eggs).

Isolated cysts were cultured and fairy shrimp were grown until mature following Martin, Rogers & Olsen (2016). Mature shrimp were sacrificed in 90% ethyl alcohol and identified under microscope.

IV. RESULTS OF DRY SEASON SURVEY

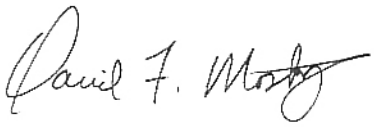
Branchinecta cysts were present in Features 1, 2, and 3, cultured and identified as *B. lindahli*. No cysts were detected in Feature 4. No *Streptocephalus* cysts were detected in samples [Appendix A].

I certify that the information in this survey report and the attached exhibits fully and accurately represent my work.

If you have any questions regarding this report, please contact me via email at dmoskovitz@wetlandpermitting.com.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.



David Moskovitz
Biologist (PER0010680-0)

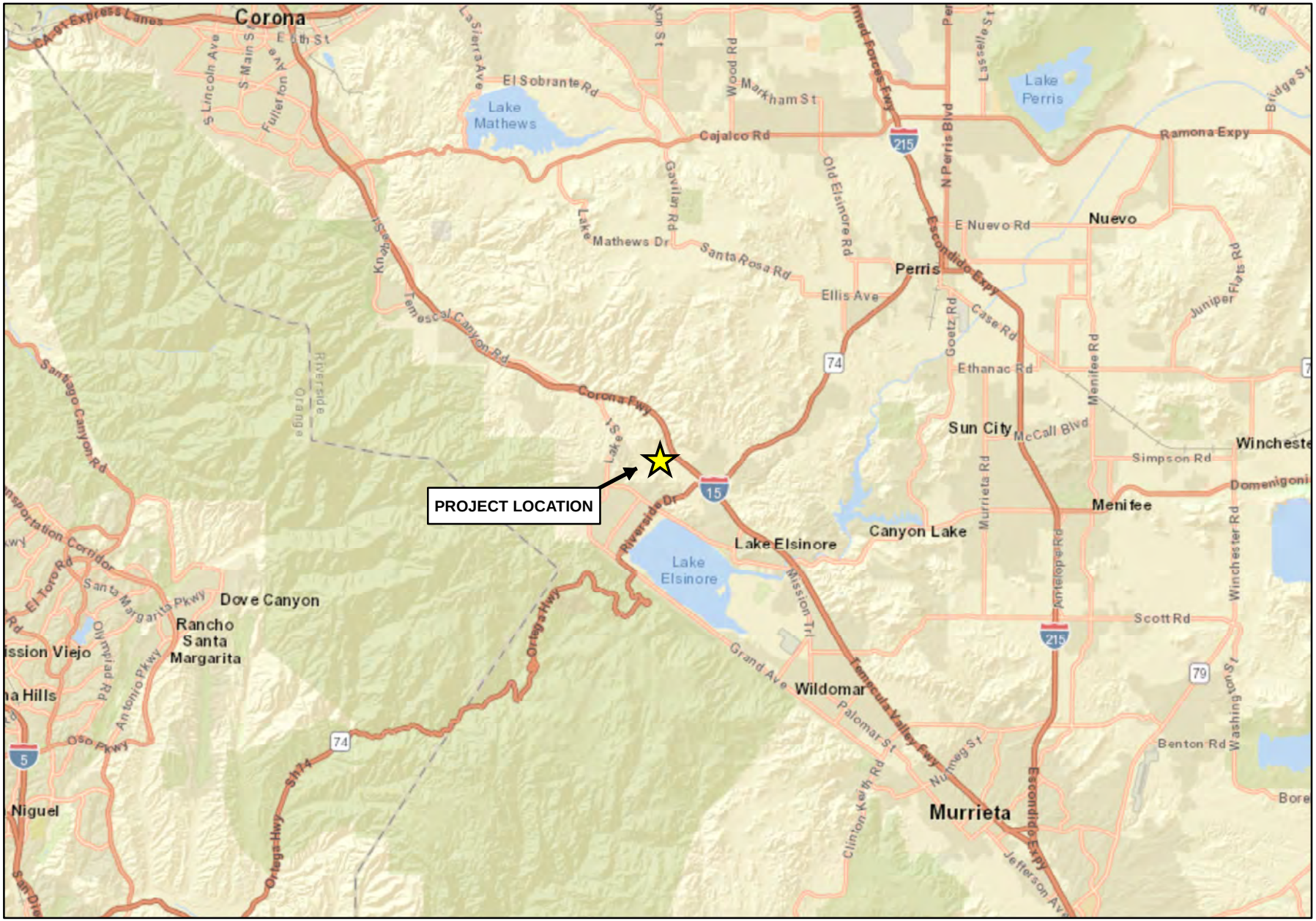


Stephanie Cashin
Biologist (TE-20280D-0)



Chris Waterston
Biologist (ESPER-2380694)

P:1514-05b.FairShrimp_dry2023-2024.rpt



Source: ESRI World Street Map

N

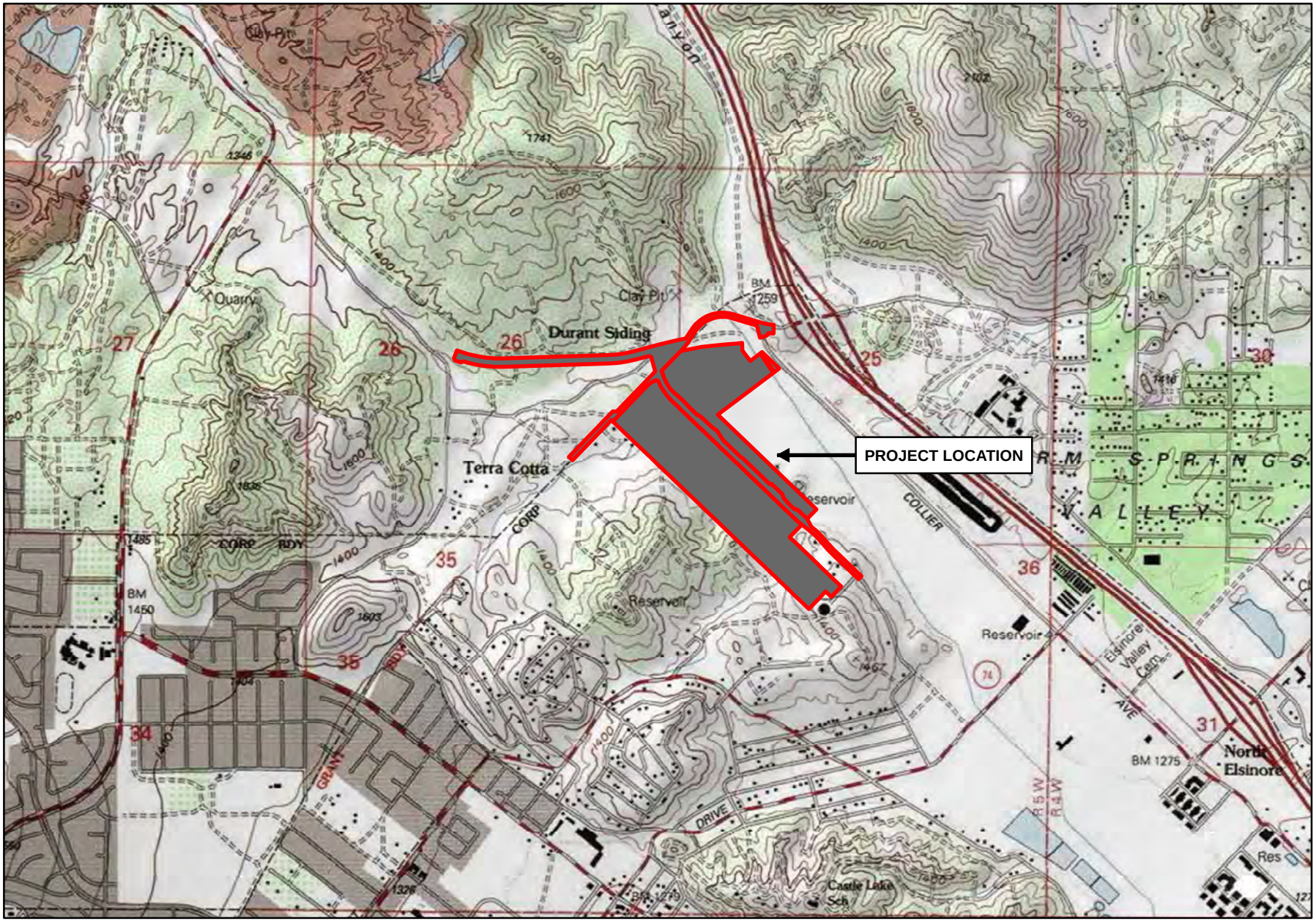
0 2 4 8 Miles

BAKER INDUSTRIAL PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



BAKER INDUSTRIAL PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Survey Area

Fairy Shrimp Pool

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: B. Gale, GLA
Date Prepared: August 12, 2024

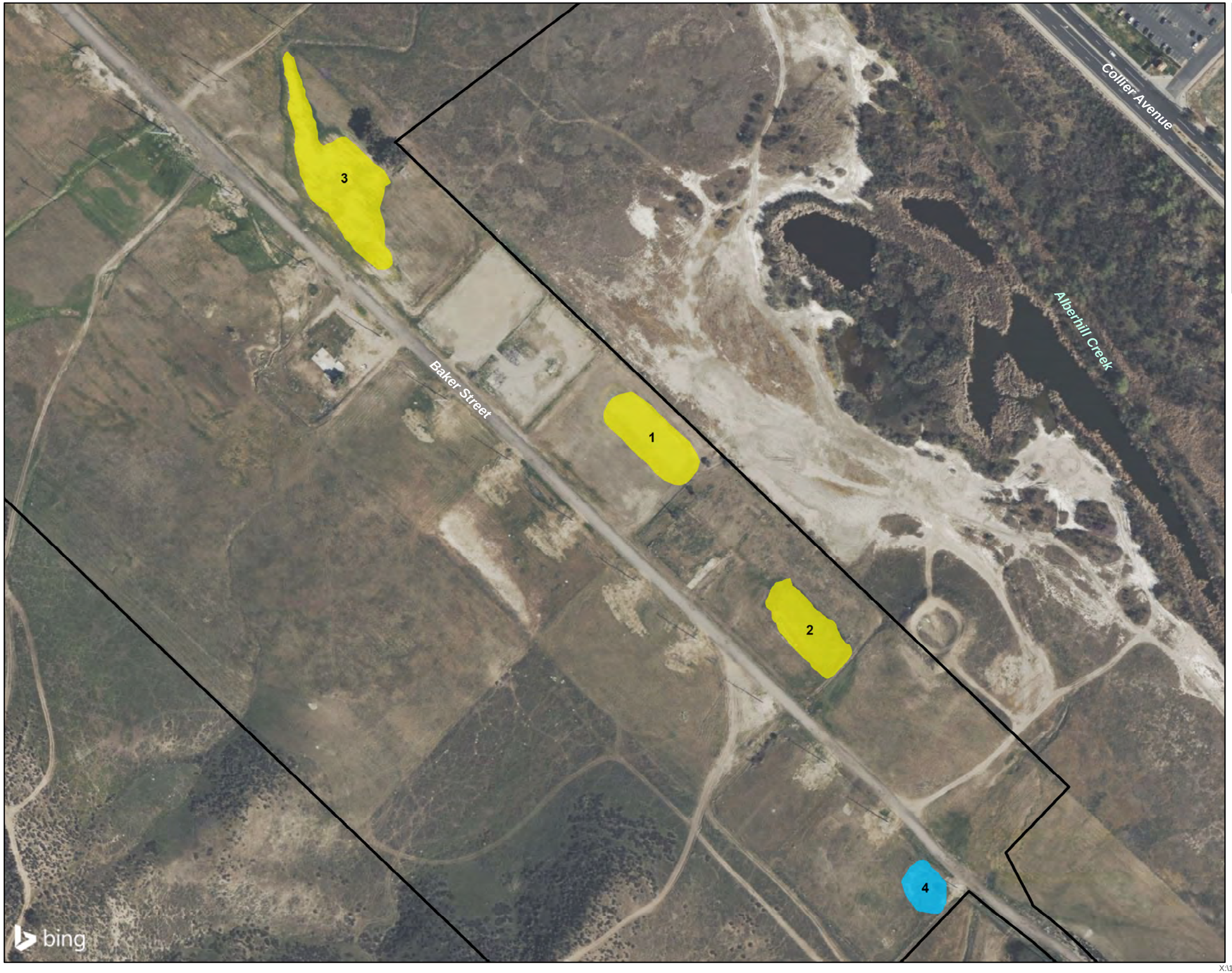
BAKER INDUSTRIAL PROJECT

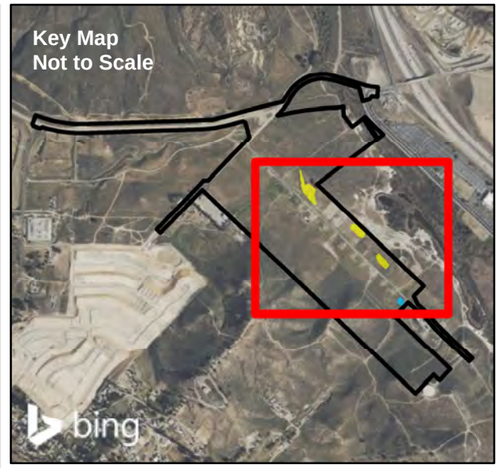
Fairy Shrimp Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\1100 AFTER THE REST\1514-05BKIN\GIS\FairyShrimpGIS\1514-05_FSSurveyArea.mxd





Survey Area

Fairy Shrimp Pools

Branchinecta Cysts Detected;
B. lindahli Cultured

No Fairy Shrimp Detected

0 100 200 400
Feet

1 inch = 200 feet

N

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: August 12, 2024

BAKER INDUSTRIAL PROJECT

Fairy Shrimp Dry Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\1100 AFTER THE REST\1514-05BKIN\GIS\FairyShrimpGIS\1514-05_FS_Dry2024.mxd



Photograph 1: A general view of the Project site facing approximately north along Baker Road. Photo taken on 07/19/24.



Photograph 2: A general view of the Project site facing approximately west from the central portion of the site. Photo taken on 07/19/24.



Photograph 3: A view of Feature 1 facing north during the dry season sampling effort. (Zone 11S, 466368.8 mE and 3729343.4 mN, 10/19/23, CW, *Branchinecta* cysts detected with cultured identification as *B. lindahli*).



Photograph 4: A view of Feature 2 facing northeast during the dry season sampling effort. (Zone 11S, 466598.7 mE and 3729130.8 mN, 10/19/23, CW, *Branchinecta* cysts detected with cultured identification as *B. lindahli*).

GLENN LUKOS ASSOCIATES

BAKER INDUSTRIAL PROJECT

Site Photographs



Photograph 5: A view of Feature 2 facing approximately north during the dry season sampling effort. (Zone 11S, 466598.7 mE and 3729130.8 mN, 10/19/23, SC, *Branchinecta* cysts detected with cultured identification as *B. lindahli*).

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Photograph 6: A view of Feature 3 facing approximately northwest during the dry season sampling effort. (Zone 11S, 466699.7 mE and 3729015.1 mN, 11/02/23, SC, *Branchinecta* cysts detected with cultured identification as *B. lindahli*).

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Photograph 7: A view of Feature 3 facing approximately northeast during the dry season sampling effort. (Zone 11S, 466699.7 mE and 3729015.1 mN, 11/02/23, SC, *Branchinecta* cysts detected with cultured identification as *B. lindahli*).

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Photograph 8: A view of Feature 4 facing approximately northwest during the dry season sampling effort. (Zone 11S, 466773.4 mE and 3728854.4 mN 07/19/23, SC).

21 March 2024

Thienan Pfeiffer
tly@wetlandpermitting.com
Glenn Lukos Associates, Inc.
1940 E Deere Avenue, Suite 250
Santa Ana, CA 92705, USA
Office 949.340.9088

SUBJECT: Results of Dry Season Special Status Crustacean Soil Samples Analyses from the Baker Industrial Proposed Project Site, Riverside County, CA.

Dear Thienan:

Glenn Lukos Associates, Inc. (GLA) biologists sent soil samples to D. Christopher Rogers from four special status shrimp habitats within the proposed Baker Industrial Proposed Project Site. This project site is in the City of Lake Elsinore (APNs: 378-020-024, -037, and -040), in Riverside County, California. The samples were sent for examination and analysis for federally listed and petitioned vernal pool crustaceans.

Samples were sent by GLA staff from previously identified habitats. Vernal pool crustacean eggs were found in three of the four pool samples. The cultures produced only the nonlisted *Branchinecta lindahli*. All specimens were identified based on adult morphological characters.

D. Christopher Rogers understands that GLA will submit this report and all other pertinent materials and information to the US Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW), as required by the USFWS guidelines for a protocol level survey.

Definitions

For this report, special status shrimp are defined to include shrimp species listed as threatened or endangered under the federal Endangered Species Act (ESA) (50 CFR 17.11 for listed animals and various Federal Register notices for proposed species). Three special status fairy shrimp species (*Branchinecta lynchi* Eng, Belk, & Eriksen, 1990, *Branchinecta sandiegonensis* Fugate, 1993, and *Streptocephalus woottoni* Eng, Belk, & Eriksen, 1990) are known to occur within the vicinity of the project site. In addition, the nonlisted fairy shrimp species *Branchinecta lindahli* Packard, 1883 is known from the proposed site vicinity.

Methods

Soil samples from 4 known special status shrimp habitats were received from GLA for analyses. The soil samples arrived in plastic ziplock bags, labeled with the locality numbers, and submitted

to Dr. Roger's laboratory for analysis. All processing, analyses and culturing was conducted under USFWS Permit #TE796284-7.

Soil samples were labelled with the numbers on their respective bags and prepared for examination by dissolving the clumps of soil in water and sieving the material through 300- and 150- µm pore size screens. The small size of these screens ensures that the eggs from the shrimp species will be retained. The portion of each sample retained in the screens was dissolved in a brine solution to separate the organic material from the inorganic material. The organic fraction was then examined under a microscope. Counts were made by estimating the number of eggs per 100ml of soil, because not all samples had the same volume of soil collected originally.

Isolated eggs from each sample were cultured separately. Adult shrimp were reared from the recovered eggs using methods following Martin, Rogers & Olesen (2016). Hatched shrimp were fed a standard *Daphnia* food that includes; fish food, fish oil, baker's yeast, and the alga *Selenastrum capricornutum*. The shrimp were reared to maturity. Adult *Branchinecta* reared from culture were killed in 90% ethyl alcohol and examined under a stereo dissection microscope. Identifications were made based upon comparisons with specimens in our collections, the original species descriptions, and professional experience.

Results

Eggs belonging to the genus *Branchinecta* were isolated from all soil samples except from pool 4. Adult *B. lindahli* were reared from all three cultures. No suspected hybrids between *B. lindahli* and the federally listed *B. sandiegonensis* were identified.

These results are insufficient by themselves to determine the presence or absence of listed vernal pool crustaceans at the Baker proposed project site and must be coupled with a USFWS protocol wet season survey before any determinations can be made.

Certification

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

If you have any questions, please call me.

Sincerely,



D. Christopher Rogers
785.925.7468
Crustacean Taxonomist and Ecologist

Literature Cited

Federal Register. 1994. 19 September: Fish & Wildlife Service, Interior. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status and Withdrawal of Proposal to Give Endangered Status; Final Rule and Proposed Rule; Determination of Endangered Status for the Conservancy Fairy Shrimp, Longhorn Fairy Shrimp, and the Vernal Pool Tadpole Shrimp; and Threatened Status for the Vernal Pool Fairy Shrimp. 59 CFR (17): 48153-48185.

Martin, J.W., D.C. Rogers & J. Olesen. 2016. Collecting and processing branchiopods. Journal of Crustacean Biology, 36: 396-401.

Appendix E

Report of Wet Season Fairy Shrimp Surveys

GLENN LUKOS ASSOCIATES
Regulatory Services

August 21, 2024

Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Report of Findings for 2023-2024 Wet-Season Survey for Listed Branchiopods Conducted for the Baker Industrial Project, Located in the City of Lake Elsinore, Riverside County, California

Dear Ms. Love:

Glenn Lukos Associates, Inc. (GLA) conducted wet-season surveys for listed branchiopods (fairy shrimp) within four seasonally ponded features at the Baker Industrial Project Site (Property), located in the City of Lake Elsinore, Riverside County, California.

GLA biologists Stephanie Cashin (TE-20280D-0) and Chris Waterston (ESPER-2380694) along with GLA biologists David Smith and Velvet Park, as supervised trainees, conducted the 2023-2024 wet season survey with the objective of determining the presence or absence of federally-listed Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*).

The versatile fairy shrimp (*Branchinecta lindahli*) was detected in three of the four features surveyed. No listed branchiopods were detected on site.

I. SITE LOCATION AND DESCRIPTION

The Project is located in the City of Lake Elsinore, Riverside County, California [Exhibit 1 – Regional Map] within Section 25, Township 5 South, and Range 5 West as depicted on the U.S. Geological Survey (USGS) topographic map Lake Elsinore, California [dated 1953 and photorevised in 1988] [Exhibit 2 – Vicinity Map]. APNs for the Project are 378-020-024, -037, and -040

The Project site is generally bordered by Nichols Road to the north, rural and undeveloped land to the south and west, and Collier Street to the east. The site is bisected by Baker Street. The

fairy shrimp survey area includes four depressional features [Exhibit 3 – Fairy Shrimp Survey Area Map]. Approximately a third of the property along the southwestern boundary consists of hills and the remaining two-thirds of the property is generally flat and extends to the northeast boundary and the Alberhill Creek flood plain.

II. METHODOLOGY

GLA biologist David Moskovitz provided a written notification to commence wet and dry season surveys to the U.S. Fish and Wildlife Service (USFWS), Carlsbad Field Office on August 25, 2023. Initial mapping in the notification was based on surveys conducted in 2020; however, mapping was updated during the 2023-2024 wet season surveys. Storms in late December 2023 and early January 2024 initiated hydrologic monitoring of Pools 1-4. Pool 3 began to sustain ponding after storms between January 19 - 23, 2024, with sampling in Pool 3 initiated beginning January 26, 2024. Pools 1 and 4 began to sustain ponding beginning February 2, 2024. After a multiple day storm in early February 2024, all pools reached the maximum extent of ponding. Pool 1 remained ponded until May 9, 2024. Pool 3 remained ponded until May 14, 2024. Pool 2 and 4 remained ponded until May 22, 2024.

In accordance with the USFWS *Survey Guidelines for the Listed Large Branchiopods* (Survey Guidelines) dated November 13, 2017[1], site visits were conducted within 24 hours of rain events to determine whether features contained a minimum of three centimeters (cm) of ponding. Under typical conditions, sampling commences within seven days of initial ponding. Sampling continued weekly until the feature was dry or had been inundated continuously for 120 days. If dried features were re-inundated, sampling would begin again as above. Sampling for the presence of fairy shrimp was performed using a dip net within representative portions of the depression bottom, edges, and vertical water column when there was adequate ponding. Specimens were placed into vials, with unique depression information, containing 95% ethanol solution. Specimens were identified through microscopy and using the "Key to California Fairy Shrimps" found in Eriksen and Belk (1999, Revised 2016).[2] Datasheets are attached as Appendix A.

IV. RESULTS

A total of four features were sampled during the 2023-2024 wet season. Of the four features sampled; three features supported fairy shrimp. The common versatile fairy shrimp

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1 USFWS. *Survey Guidelines for the Listed Large Branchiopods,* Revised: November 13, 2017.

2 *Eriksen, C. and D. Belk. 1999. Fairy Shrimps of California's Puddles, Pools, and Playas. Mad River Press, Inc. Eureka, California.*

(*Branchinecta lindahli*) was detected in the three features. No listed species were detected. Table 1 includes the wet season fairy shrimp survey results. The western spadefoot toad (*Spea hammondii*) was detected in Pools 1-3. Exhibit 4 depicts the fairy shrimp wet season survey results map. Site photographs are depicted in Exhibit 5.

Table 1 Wet Season Fairy Shrimp Survey Results

Pool ID	FAIRY SHRIMP DETECTED	SURFACE AREA MAX (MxM)	DEPTH MAX (cm)	EASTING	NORTHING
1	Yes	50x27	45	466368.80	3729343.40
2	Yes	67x27	55	466598.70	3729130.80
3	Yes	150x43	55	466699.70	3729015.10
4	No	34x30	70	466773.40	3728854.40

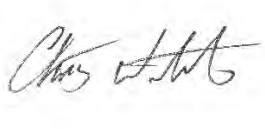
I certify that the information in this survey report and the attached exhibits fully and accurately represent my work. If you have any questions regarding this report, please contact us via email at dmoskovitz@wetlandpermitting.com, at scashin@wetlandpermitting.com, or at cwaterston@wetlandpermitting.com.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

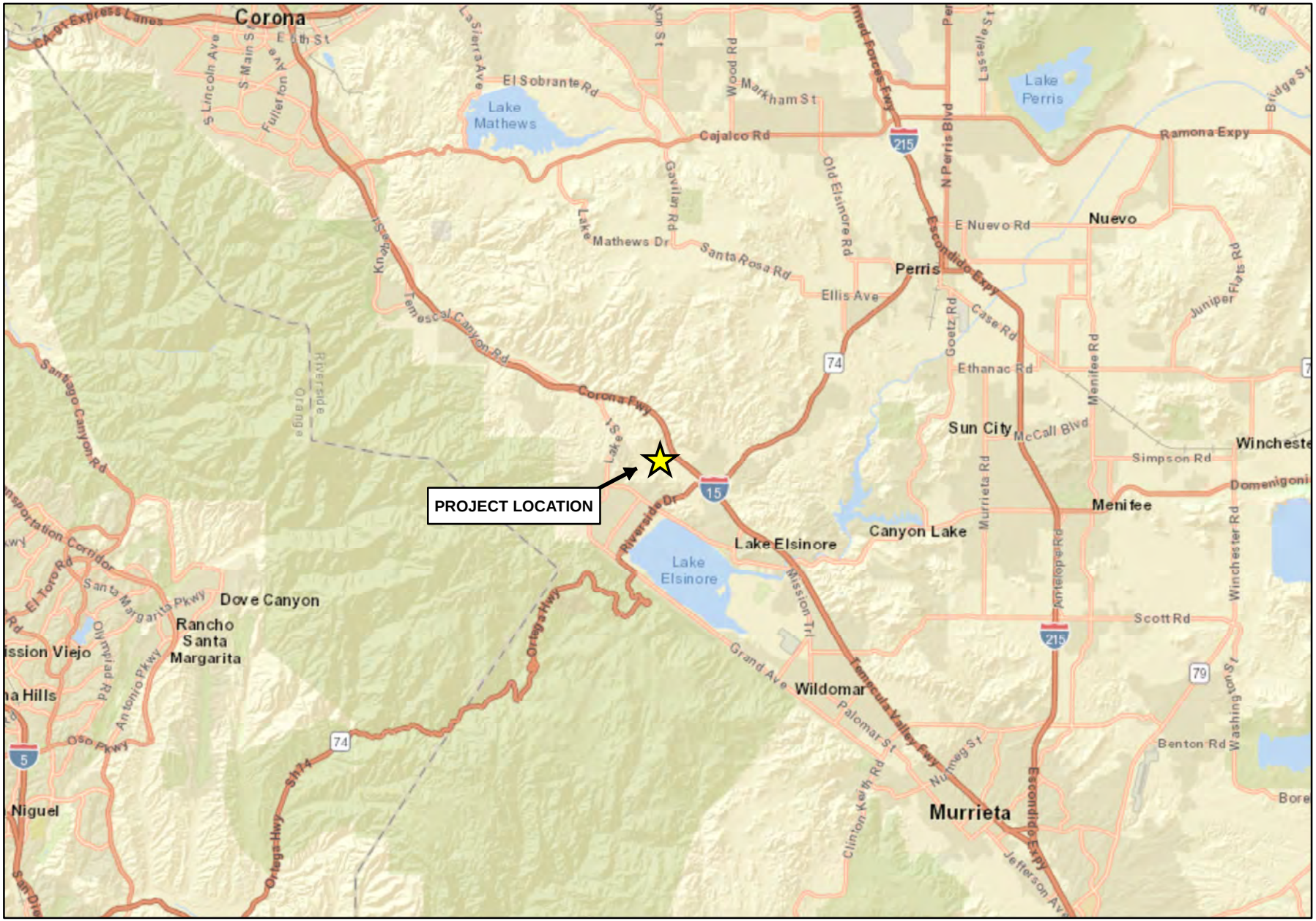


Stephanie Cashin
Biologist (TE-20280D-0)



Chris Waterston
Biologist (ESPER-2380694)

p:1514-05a.2023-2024.WetSeason.90-day.rpt.docx



Source: ESRI World Street Map

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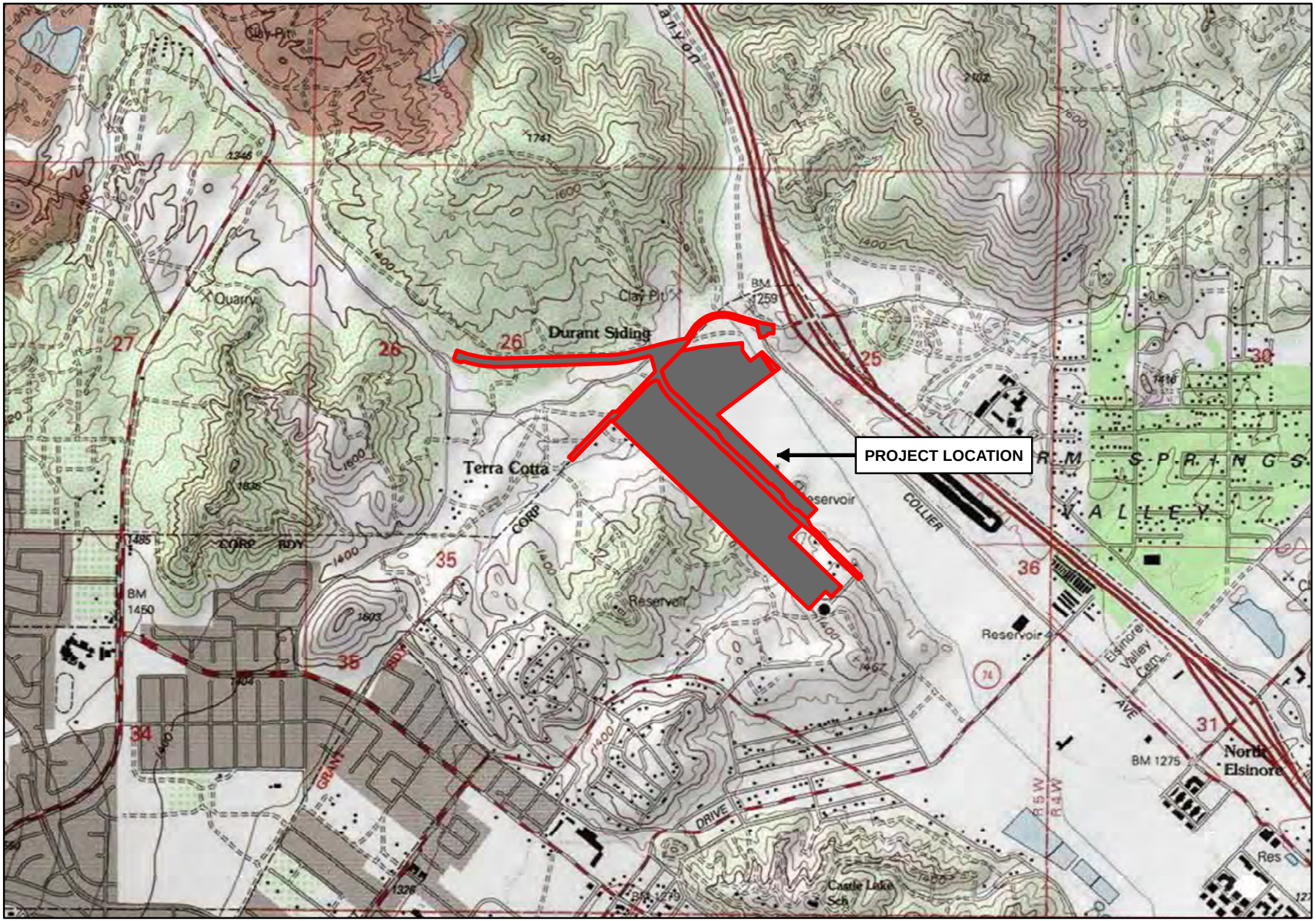
0 2 4 8 Miles

BAKER INDUSTRIAL PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



BAKER INDUSTRIAL PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Survey Area

Fairy Shrimp Pool

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: B. Gale, GLA
Date Prepared: August 12, 2024

BAKER INDUSTRIAL PROJECT

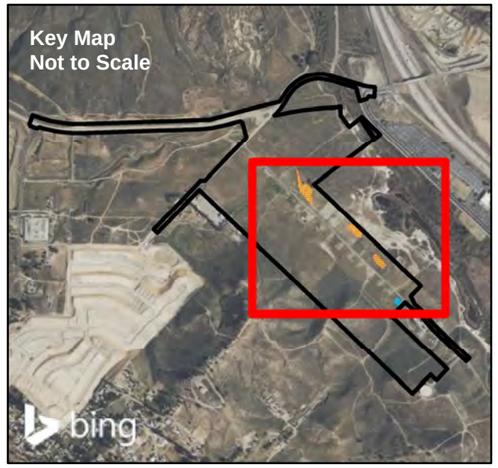
Fairy Shrimp Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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Survey Area

Fairy Shrimp Pools

Wet Season
B. lindahli Detected

Wet Season
B. lindahli Not Detected

Dry Season
Branchinecta Cysts Detected;
B. lindahli Cultured

0 100 200 400
Feet

1 inch = 200 feet

N

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: August 12, 2024

BAKER INDUSTRIAL PROJECT

Fairy Shrimp Wet Survey Results Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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Photograph 1: A general view of the Project site facing approximately north along Baker Road. Photo taken on 07/19/24.



Photograph 2: A general view of the Project site facing approximately west from the central portion of the site. Photo taken on 07/19/24.



Photograph 3: A view of Pool 1 facing northeast. (Zone 11S, 466368.8 mE and 3729343.4 mN, 02/08/2024, SC, *B. lindahli*).



Photograph 4: A view of Pool 1 facing northwest. (Zone 11S, 466368.8 mE and 3729343.4 mN, 04/22/2024, SC, *B. lindahli*).

GLENN LUKOS ASSOCIATES

BAKER INDUSTRIAL PROJECT

Site Photographs



Photograph 5: A view of Pool 2 facing approximately northeast. (Zone 11S, 466598.7 mE and 3729130.8 mN, 03/20/2024, SC, *B. lindahli detected*).



Photograph 6: A view of Pool 3 facing approximately north standing near the southern edge of pool. (Zone 11S, 466699.7 mE and 3729015.1 mN, 02/08/2024, SC, *B. lindahli* detected).
.



Photograph 7: A view of Pool 3 facing approximately east-southeast standing at the western edge near the middle of the pool. (Zone 11S, 466699.7 mE and 3729015.1 mN, 02/02/2024, SC, *B. lindahli detected*).



Photograph 8: A view of Pool 4 facing approximately south. (Zone 11S, 466773.4 mE and 3728854.4 mN 02/22/2024, SC).

BAKER INDUSTRIAL PROJECT
Site Photographs

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25
SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)					
Date: 01/26/2024	Time:	Weather Conditions: clear, 0-1mph			

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8																		dry
2	3729130.8 466598.7																		dry
3	3729015.1 466699.7	18.2	17.4		25		150x43												
4	3728854.4 466773.4																		dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 02/02/2024 | Time: | Weather Conditions: part cloud, 0-1mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	11.1	10.8		10		8x6												
2	3729130.8 466598.7																		dry
3	3729015.1 466699.7	11.1	10.8		25		150x43												
4	3728854.4 466773.4	11.1	10.8		3		0.25x0.25												

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 02/08/2024 | Time: | Weather Conditions: part cloud, 0-5mph, multiple day storm just passed, filled all pools

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	18.2	10.8		30		50x27												
2	3729130.8 466598.7	18.2	10.8		30		67x27												
3	3729015.1 466699.7	18.2	14.5		50		150x43				x		x	x					
4	3728854.4 466773.4	18.2	10.5		70		34x30												

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 02/15/2024 | Time: | Weather Conditions: part cloud, 0-6mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	14.4	12		30		50x27												
2	3729130.8 466598.7	14.4	12		30		67x27												
3	3729015.1 466699.7	14.4	12		50		150x43				x		x	x					
4	3728854.4 466773.4	14.4	12		70		34x30												

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 02/22/2024 | Time: | Weather Conditions: clear, 0-3mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	18.5	14		30		50x27	1s			x		x	x					Baja treefrog; Branchinecta lindahli
2	3729130.8 466598.7	18.5	14		45		67x27	1s					x	x					Baja treefrog tadpoles; B. lindahli
3	3729015.1 466699.7	18.5	14		50		150x43	1s			x		x	x					crawfish, Baja treefrog; B. lindahli
4	3728854.4 466773.4	18.5	12.7		70		34x30						x						Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 02/28/2024 | Time: | Weather Conditions: clear, 0mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	16.7	14		30		49x26	1s			x	x	x	x	x	x			western toad and Baja treefrog; Branchinecta lindahli
2	3729130.8 466598.7	16.7	14		45		65x25	1s			x		x	x	x				western toad and Baja treefrog tadpoles; B. lindahli
3	3729015.1 466699.7	16.7	14		50		150x39				x		x	x		x			western toad and Baja treefrog
4	3728854.4 466773.4	16.7	12.7		70		33x29				x				x				Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 03/07/2024 | Time: | Weather Conditions: overcast, 0-3mph; rained last 2 days

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	20.5	19.2		35		50x27				x				x	x			western toad tadpoles
2	3729130.8 466598.7	20.5	19.2		55		67x27				x								western toad tadpoles
3	3729015.1 466699.7	20.5	20.5		30		150x43				x				x	x			western toad tadpoles
4	3728854.4 466773.4	20.5	18		70		34x30				x				x	x			western toad tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 03/15/2024 | Time: | Weather Conditions: overcast, 0-5mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	17.4	18		35		47x25				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish
2	3729130.8 466598.7	17.4	18		55		35x10	1s			x		x		x	x			western toad tadpoles; B. lindahli
3	3729015.1 466699.7	17.4	18.1		30		147x41				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish, string algae
4	3728854.4 466773.4	17.4	17.3		70		34x30				x		x		x				western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 03/20/2024 | Time: | Weather Conditions: clear, 2-3mph; rained a couple days

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	22.3	19.5		45		50x25				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish
2	3729130.8 466598.7	22.3	19.5		50		65x25				x		x	x	x	x			western toad tadpoles, western spadefoot tadpole
3	3729015.1 466699.7	22.3	19.5		55		150x43				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish
4	3728854.4 466773.4	22.3	18.2		70		31x28				x		x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 03/28/2024 | Time: | Weather Conditions: clear, 2-5mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	23	21		25		45x25				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish, western spadefoot tadpole
2	3729130.8 466598.7	23	18		30		65x25				x		x	x	x	x			western toad tadpoles
3	3729015.1 466699.7	23	20.2		22		146x40				x		x	x	x	x			western toad and Baja treefrog tadpoles, crayfish, western spadefoot tadpole
4	3728854.4 466773.4	23	17		60		30x27				x	x	x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 04/04/2024	Time:	Weather Conditions: cloudy, 0mph; rained >1in over weekend

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	23	21		25		45x25				x	x	x	x	x	x			western toad and Baja treefrog tadpoles
2	3729130.8 466598.7	23	18		30		65x25				x		x	x	x	x			western toad tadpoles
3	3729015.1 466699.7	23	20.2		35		146x40				x		x	x	x	x			western toad and Baja treefrog tadpoles
4	3728854.4 466773.4	23	17		60		30x27				x	x	x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25
SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)					
Date: 04/12/2024	Time:	Weather Conditions: clear, 0-5mph			

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	18.5	18.5		25		40x17				x	x	x	x	x	x			western toad and Baja treefrog tadpoles
2	3729130.8 466598.7	18.5	17		30		63x23				x		x	x	x	x			western toad tadpoles(2cohorts) and metamorphs
3	3729015.1 466699.7	18.5	18.2		35		144x37				x		x	x	x	x			western toad and Baja treefrog tadpoles
4	3728854.4 466773.4	18.5	16.5		60		30x27				x	x	x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 04/18/2024 | Time: | Weather Conditions: clear, 0mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	20	19		25		40x17				x	x	x	x	x	x			western toad and Baja treefrog tadpoles
2	3729130.8 466598.7	20	20.2		30		63x23				x		x	x	x	x			western toad tadpoles(2cohorts) and metamorphs
3	3729015.1 466699.7	20	18.4		25		144x37				x		x	x	x	x			western toad and Baja treefrog tadpoles
4	3728854.4 466773.4	20	21.2		60		30x27				x	x	x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 04/22/2024 | Time: | Weather Conditions: clear, 0-4mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	25.5	24		10		26x15				x		x	x	x	x			western toad and Baja treefrog tadpoles
2	3729130.8 466598.7	25.5	24.3		25		57x17				x		x	x	x	x			western toad tadpoles(2cohorts) and metamorphs
3	3729015.1 466699.7	25.5	23.1		30		130x33				x		x	x	x	x			western toad and Baja treefrog tadpoles
4	3728854.4 466773.4	25.5	24		50		30x27				x		x	x	x	x			western toad and Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 05/01/2024 | Time: | Weather Conditions: clear, 4-5mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8	25	19.3		10		12x6				x		x	x	x	x			
2	3729130.8 466598.7	25	19		24		57x17				x		x	x	x	x			
3	3729015.1 466699.7	25	19.8		25		130x33				x		x	x	x	x			
4	3728854.4 466773.4	25	23		40		30x27				x		x	x	x	x			

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 05/09/2024 | Time: | Weather Conditions: clear, 2-3mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	3729343.4 466368.8																		dry
2	3729130.8 466598.7	25	24		12	30x10						x	x	x	x				
3	3729015.1 466699.7	25	24		7	10x4						x	x	x	x				
4	3728854.4 466773.4	25	21		35	10x8						x	x	x	x				Baja treefrog tadpoles

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25
SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)					
Date: 05/14/2024	Time:	Weather Conditions: clear, 2-3mph			

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	466368.8 3729343.4	20	0																dry
2	466598.7 3729130.8	20	19.5		5	3x1							x	x	x				
3	466699.7 3729015.1	20	0																dry
4	466773.4 3728854.4	20	18		25	9x5							x	x	x				

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix 1. U.S. Fish and Wildlife Service - Data Sheet for Wet Season Surveys for Listed Large Branchiopods

Site or Project Name: Baker Industrial Project	County: Riverside	Quad: Lake Elsinore	Township: 5 South	Range: 5 West	Section: 25

SURVEYOR/Permit Number: Stephanie Cashin (TE-20280D-0) Chris Waterston (ESPER2380694)

Date: 05/22/2024 | Time: | Weather Conditions: clear, 0mph

Feature ID#	UTM (Northing, Easting, Datum)	Temp (˚C)		Depth (cm)		Surface Area (m x m)		Crustaceans					Insects				Platyhelminths (flatworms)	Habitat Condition	Notes / Voucher information
		Air	Water	Average	Est. Max.	Present	Est. Max.	Anostracans	Notostracans	Copepods	Ostracods	Cladocera	Coleoptera	Hemiptera	Diptera Culicidae	Diptera Chironomidae			
1	466368.8 3729343.4	21.1																	dry
2	466598.7 3729130.8																		dry
3	466699.7 3729015.1																		dry
4	466773.4 3728854.4																		dry

Notes: Fill in abbreviated names of Anostracans and Notostracans, for all others indicate presence with a check mark. Anostracan and Notostracan Abbreviations: Use first two letters of genus and species name (e.g., LIOC = Linderiella occidentalis, BRLI = Branchinecta lindahli).

For habitat conditions use two letter abbreviation as follows: NP = Natural Pool, CP = Constructed Pool; UD = undisturbed, D = disturbed: with TT = tire tracks, T = trash, P = plowed; G = grazed, UG = ungrazed by: C = cattle, H = horses, S = sheep; AB = Algal blooms present.

(Estimate grazing regime by height of grasses and forbs and density of hoof prints) LG = light grazing, MG = moderate grazing, HG = heavy grazing.

Appendix F

Jurisdictional Delineation Report

GLENN LUKOS ASSOCIATES

Regulatory Services

November 20, 2023

Glen Williams
Ecosystem Investment Partners
1505 Bridgeway, Suite 107
Sausalito, California 94965

SUBJECT: Jurisdictional Delineation of the Baker Industrial Project Site, an Approximately 124.60-Acre Site Located in Lake Elsinore, Riverside County, California

Dear Mr. Williams:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Baker Industrial Project site (Project site) comprises approximately 124.60 acres in the City of Lake Elsinore, Riverside, California [Exhibit 1 – Regional Map] and is located within an un-sectioned portion of Township 5 South, Range 5 West, of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map Lake Elsinore, California [Exhibit 2 – Vicinity Map]. The Project site is located southwest of Interstate-15, the Lake Elsinore Outlet Center and Temescal Creek/Collier Marsh.

On February 9, 2021 and April 20 and July 29, 2022, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the presence and limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed are 475-scale maps [Exhibits 3A, 3B, 3C] that depict the areas of Corps, Regional Board and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. A wetland data sheet is attached as Appendix A.

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

Corps jurisdiction at the site totals approximately 2.33 acres, all which consists of federal wetlands.

Regional Board jurisdiction at the site totals approximately 4.17 acres, of which 3.57 acres consist of State wetlands. Of this total, 2.33 acres, all of which consist of State wetlands, comprise Corps jurisdiction and the remaining 1.84 acres, of which 1.24 acres consist of State wetlands, represent Regional Board jurisdiction only.

CDFW jurisdiction at the site totals approximately 3.66 acres, of which 2.99 acres consist of riparian habitat.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OHWM Manual)[2] to identify the width of Corps jurisdiction, and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.[5] While in the field, the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring within the Project site:

Altamont clay, 5 to 15 Percent Slopes (AaD)

The Altamont series consists of deep, well drained soils that formed in material weathered from fine-grained sandstone and shale. These soils are on gently sloping to very steep uplands. Included with this soil in mapping are small areas of shallow, gravelly clay soils.

Altamont Cobbly Clay, 8 to 35 Percent Slopes (AbF)

The Altamont series consists of deep, well drained soils that formed in material weathered from fine-grained sandstone and shale. These soils are on gently sloping to very steep uplands. This soil has a profile similar to the series but some rounded water-worn cobble stones are on the surface throughout the profile.

Arbuckle Loam, 2 to 8 Percent Slopes (AkC)

The Arbuckle series consists of very deep, well drained soils that formed in alluvium from sedimentary and metamorphic rocks. Arbuckle soils are on low terraces, and have slopes of 0 to 75 percent. The profile of this series does not contain gravel in the surface area but has a subsoil of loam or clay loam.

Escondido Fine Sandy Loam, 8 to 15 Percent Slopes, Eroded (EcD2)

Escondido soils have dark brown slightly acid very fine sandy loam A horizons and neutral very fine sandy loam B2 horizons over hard metamorphic bedrock at depths of about 29 inches. This soil series occurs on gently rolling to hilly topography in foothills at elevations of 400 to 2,800 feet. Escondido soils are used for range, irrigated orchards, and non-irrigated grain, grain hay, and pasture.

Garretson Very Fine Sandy Loam, 0 to 2 Percent Slopes (GaA)

The Garretson series is a member of the fine-loamy, mixed, nonacid, thermic family of Typic Xerorthents. Typically, Garretson soils have brown and yellowish brown, slightly acid, gravelly very fine sandy loam and gravelly loam A horizons and yellowish brown, brown and grayish brown, slightly acid and neutral, gravelly loam C horizons. The profile of this soil is similar to the series but is grayish brown and is essentially free of gravel throughout. Small areas having a fine sandy loam surface layer are included in areas mapped as this soil.

Garretson Very Fine Sandy Loam, 2 to 8 Percent Slopes (GaC)

The Garretson series is a member of the fine-loamy, mixed, nonacid, thermic family of Typic Xerorthents. Typically, Garretson soils have brown and yellowish brown, slightly acid, gravelly very fine sandy loam and gravelly loam A horizons and yellowish brown, brown and grayish brown, slightly acid and neutral, gravelly loam C horizons. The profile of this soil is similar to the series but it is essentially free of gravel throughout. Included with this soil in mapping is a small area with line below a depth of 40 inches.

Garretson Gravelly Very Fine Sandy Loam, 2 to 8 Percent Slopes (GdC)

The Garretson series is a member of the fine-loamy, mixed, nonacid, thermic family of Typic Xerorthents. Typically, Garretson soils have brown and yellowish brown, slightly acid, gravelly very fine sandy loam and gravelly loam A horizons and yellowish brown, brown and grayish brown, slightly acid and neutral, gravelly loam C horizons. The profile of this soil contains gravel throughout. Included with this soil in mapping is a small area with line below a depth of 40 inches.

Lodo Rocky Loam, 25 to 50 Percent Slopes, Eroded (LpF2)

The Lodo series consists of shallow, somewhat excessively drained soils that formed in material weathered from hard shale and fine grained sandstone. Lodo soils are on uplands and have slopes of 5 to 75 percent. The mean annual precipitation is about 20 inches and the mean annual air temperature is about 62 degrees F.

Rough Broken Land (RuF)

This soil consists if alluvial materials that are remnants of old alluvial fans and terraces. These fans and terraces have been dissected by drainages to such an extent that areas of recognizable soils cannot be mapped. Slopes range from 30 to 50 percent.

Willows Silty Clay, Saline-Alkali (Wg)

The Willows series consists of very deep, poorly to very poorly drained sodic soils formed in alluvium from mixed rock sources. Willows soils are in flood basins. Slope ranges from 0 to 2 percent. This nearly level to gently sloping soil is in basins and on edges of alluvial fans. It is moderately saline alkali.

II. JURISDICTION

A. Army Corps of Engineers

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

(1) Waters which are:
  (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
  (ii) The territorial seas; or
  (iii) Interstate waters;
(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
(3) Tributaries of waters identified in paragraphs (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
(4) Wetlands adjacent to the following waters:
  (i) Waters identified in paragraph (a)(1) of this section; or
  (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

Corps regulations at 33 CFR Part 328.3(b) exclude the following from being "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) above:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water

> Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;
>
> (3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
>
> (4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
>
> (5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
>
> (6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
>
> (7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
>
> (8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(c)(4) as:

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

"Adjacent" wetlands are defined by 33 CFR 328.3(c)(2) as having a "continuous surface connection" to other waters of the United States.

1. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(c)(1) as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in

the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be hydrophytic in nature as published in the most current national wetland plant list;

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

2. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the

question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

B. Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[6] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

[6] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

1. State Wetland Definition

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

The following wetlands are waters of the State:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state;[7] and
3. Artificial wetlands[8] that meet any of the following criteria:

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters,
        v. Agricultural crop irrigation or stock watering,
        vi. Fire suppression,
        vii. Industrial processing or cooling,

[7] "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.
[8] Artificial wetlands are wetlands that result from human activity.

viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[9]

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

C. California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as "a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

It is important to note that the Fish and Game Code defines wildlife to include "all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities, including the habitat upon which they depend for continued viability" (FGC Division 0.5, Chapter 1, section 89.5). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

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

III. RESULTS

The overall Project site varies in topography from slightly hilly to flat, sloping from southwest to northeast. The onsite portion of the Project site consists of several small hills and ridges sloping from the southwest down to the existing dirt road of Baker Street, with the site being flatter on the northern end near the Baker Street/Pierce Street intersection. On the north/east side of Baker Street, the landscape is flat with a very gradual change in elevation to the northeast towards Alberhill Creek/Collier Marsh. Elevations at the Project site range from approximately 1,400 feet above mean sea level (AMSL) at the southwestern boundary to 1,250 feet AMSL at the northeastern limits.

Portions of the Project site have been subject to ground disturbance due to dumping, disking, farming activities, and off-road vehicle use. Storm water flows in a general west to east/northeast direction, and depending on rainfall amounts, through the Project site towards Alberhill Creek. Alberhill Creek and its associated floodplain border the Project site to the east, with a portion of the Creek extending across the northeastern portion of the site. Vegetation associated with Alberhill Creek includes southern riparian scrub with alkali playa components in the immediate floodplain. During periods of high rainfall, the western portion of the Project site drains across Baker Street and contributes to a seasonal pond.

The Project site also contains several earthen drainages concentrated in the development area that flow only in direct response to precipitation. These features drain in a general west to easterly/northeasterly direction and generally lose flow sign before reaching Alberhill Creek. Additional onsite features analyzed as part of the delineation include seasonally ponded areas, a maintained stock pond, and topographic features. The seasonally ponded areas are located on the east side of Baker Street and were completely dry during the field investigations.

A. Corps Jurisdiction

Corps jurisdiction at the site totals approximately 2.33 acres, all which consist of federal wetlands, and is limited to Alberhill Creek and its adjacent wetlands. Alberhill Creek is considered a perennial feature that includes open water, freshwater wetlands, and alkali components in the adjacent floodplain. Alberhill Creek and its adjacent wetlands are considered waters of the U.S. as defined under 33 CFR Part 328.3(a) and are subject to Corps jurisdiction under Section 404 of the CWA.

The Project site also contains six ephemeral drainage features (Drainages A, B, C, D, E, and F), three seasonal ponds (Seasonal Ponds 1, 2, and 3), and a maintained stock pond that was excavated in the uplands for stock watering purposes. These features are not considered waters of the U.S. and are described further below.

The boundaries of the waters of the U.S. are depicted on the enclosed maps. Site photographs are provided as Exhibit 4.

Alberhill Creek

Corps jurisdiction associated with Alberhill Creek totals 2.33 acres, all of which consist of federal wetlands.

Alberhill Creek enters the Project site in the northeast corner and extends in a northwesterly direction for approximately 730 linear feet before exiting the site. Alberhill Creek conveys perennial flow and is tributary to Temescal Creek, which is tributary to the Santa Ana River, and eventually, the Pacific Ocean. As a feature with relatively permanent flow, Alberhill Creek is considered a waters of the U.S. as defined under (a)(3) of 33 CFR Part 328.3(a) and is therefore subject to Corps jurisdiction under Section 404 of the CWA. In addition, the wetlands have a continuous surface connection to Alberhill Creek and are therefore considered waters of the U.S. (i.e., adjacent wetlands) as defined under (a)(4) of 33 CFR Part 328.3(a).

The portion of the low flow channel of Alberhill Creek within the Project site is approximately 14 feet in width and exhibited flowing water and ponding at the time of the field assessments. Alberhill Creek is dominated by southern willow scrub riparian habitat with an alkali playa component occurring in the abutting floodplain. A majority of the alkali playa component in the northeastern portion of the Project site exhibits at least some degree of soil disturbance and alterations to the hydrologic regime as evidenced by the presence tire tracks, road ruts, and unauthorized dumping.

Dominant riparian/wetland vegetation associated with Alberhill Creek includes salt cedar (*Tamarix ramosissima*), black willow (*Salix gooddingii*), arroyo willow (*Salix lasiolepis*), and mulefat (*Baccharis salicifolia*), with alkali bulrush (*Bolboschoenus maritimus*), common toad rush (*Juncus bufonius*), and cattail (*Typha* ssp.). Other common plants include common nettle (*Urtica dioca*), shortpod mustard (*Hirschfeldia incana*), silverscale saltbush (*Atriplex argentea*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), western ragweed (*Ambrosia psilostachya*), saltgrass (*Distichlis spicata*), and annual rabbitsfoot grass (*Polypogon monspeliensis*).

The larger floodplain abutting the Creek exhibits sign of temporary inundation during the wet season as evidenced by the presence of surface soil cracks, salt crusts, ponding, and patchy Facultative (FAC) or wetter alkali-adapted species, including salt grass, alkali weed (*Cressa truxillensis*), goldfields (*Lasenthia* ssp.), San Jacinto Valley crownscale (*Atriplex coronata var. notatior*), bush seepweed (*Suaeda nigra*), and small flowered ice plant (*Mesembryanthemum*

nodiflorum). Wetland indicators include strongly saline-alkaline soils, disturbed and/or bare areas indicative of alkali habitat, and the presence of wetland hydrology.

A wetland data sheet is provided as Appendix A.

Non-Jurisdictional Features

The Project site contains six drainage features (Drainages A, B, C, D, E, and F) that flow only in direct response to precipitation (e.g., rain). These features lack hydrophytic vegetation and were dry during the field assessments. Drainage features that are not relatively permanent, standing or continuously flowing bodies of water do not meet the definition of waters of the U.S. under 33 CFR Part 328.3(a) and are not subject to Corps jurisdiction under Section 404 of the CWA.

Additional features excluded from Corps jurisdiction include a stock pond and several seasonal ponds that occur in the central portion of the site. The stock pond is an artificial feature that was constructed in the uplands for stock watering and is not an impoundment of a jurisdictional water. This feature is considered an artificial pond as defined under 33 CFR Part 328.3(b)(5) and is not subject to Corps jurisdiction. The seasonal ponds located in the central portion of the site exhibit wetland characteristics (albeit problematic) but do not exhibit a continuous surface connection to Alberhill Creek or any other (a)(1), (a)(2), or (a)(3) waters as defined in 33 CFR Part 328.3(a). As a result, these features are not subject to Corps jurisdiction under Section 404 of the CWA.

The Project site also contains unmapped topographic features, including erosional areas and swales along the hillsides west of Baker Street. These features are characterized by low volume, infrequent, or short duration flow, and lack OHWM indicators. These features are considered (b)(8) features as defined under 33 CFR Part 328.3(b) and are not subject to Corps jurisdiction under Section 404 of the CWA.

B. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction at the site totals approximately 4.17 acres, of which 3.57 acres consist of State wetlands. Of this total, 2.33 acres, all of which consist of State wetlands, comprise Corps jurisdiction and the remaining 1.84 acres, of which 1.24 acres consist of State wetlands, represent Regional Board jurisdiction only.

Regional Board jurisdiction at the Project site includes Alberhill Creek and its adjacent wetlands, six ephemeral drainage features (Drainages A, B, C, D, E, and F), and three seasonal ponds (Seasonal Ponds 1, 2, and 3). As discussed above, Alberhill Creek is considered a perennial stream that includes adjacent wetlands. Since this feature is subject to Corps jurisdiction under

Section 404 of the CWA, it is also subject to Regional Board jurisdiction under Section 401 of the CWA.

Drainages A-F are earthen drainages that convey surface water only in direct response to precipitation (i.e., rain). Since ephemeral features are not subject to Corps jurisdiction under Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction under Section 401 of the CWA. However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be waters of the State that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act.

There are also several features in the uplands that do not convey adequate flow sign or support any beneficial uses identified in the Regional Board Basin Plan. This includes a maintained stock pond and areas lacking a defined stream course. Areas lacking a defined stream course include unmapped topographic features such as swales, rills, and erosional areas that do not convey adequate flow sign or a discernable bed, bank, and channel. As these areas lack a discernable stream course, they are not considered waters of the State and would not be regulated under Section 13260 of the CWC.

The stock pond was created for the purposes of agricultural crop irrigation and/or stock watering. Pursuant to the State Wetland Procedures, artificial wetlands such as stock ponds are not considered waters of the State unless they also satisfy the criteria set forth in 2, 3a, or 3b of the Procedures. As the stock pond is less than one acre in size and was created for the purposes of stock watering, it meets the exclusion criteria identified in 3(d)(v) and is not subject to regulation under Section 13260 of the CWC.

Table 1 below summarizes Regional Board jurisdictional waters at the Project site. A description of the Regional Board jurisdictional drainage features at the Project site is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3B]. Site photographs are provided as Exhibit 4.

Table 1: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Waters of the U.S./State				
Alberhill Creek	0	2.33	2.33	730
Waters of the State Only				
Drainage A	0.15	0	0.15	2,034
Drainage B	0.13	0	0.13	716

Drainage C	0.03	0	0.03	638
Drainage D	0.07	0	0.07	899
Drainage E	0.02	0	0.02	280
Drainage F	0.20	0	0.20	1,480
Seasonal Pond 1	0	0.21	0.21	N/A
Seasonal Pond 2	0	0.40	0.40	N/A
Seasonal Pond 3	0	0.63	0.63	N/A
Total*	**0.60**	**3.57**	**4.17**	**6,777**

Alberhill Creek

Alberhill Creek is subject to both Corps and Regional Board jurisdiction under Sections 404 and 401 of the CWA and need not be analyzed separately under Section 13260 of the CWC.

Drainages A-F

Regional Board jurisdiction associated with Drainages A, B, C, D, E, and F totals 0.60 acre, none of which consists of State wetlands.

Vegetation associated with Drainages A-F include foxtail barley (*Hordeum murinum*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis ssp. rubens*), rattail fescue (*Festuca myuros*), common Mediterranean grass (*Schismus barbatus*), cheeseweed (*Marva parviflora*), common fiddleneck (*Amsinckia intermedia*), stinknet (*Oncosiphon piluliferum*), annual mustard (*Brassica* ssp.), summer mustard (*Hirschfeldia incana*), goldenbush (*Isocoma menziesii*), and London rocket (*Sisybrium irio*). Areas adjacent to the upstream reaches of Drainages C and D include patches of California buckwheat (*Eriogonum fasciculatum*), bush sunflower (*Encelia californica*), and California sagebrush (*Artemisia californica*).

<u>Drainage A</u>

Regional Board jurisdiction associated with Drainage A totals 0.15 acre, none of which is State wetland.

Drainage A is an earthen ephemeral drainage that enters the Project site from the west and extends in a northeasterly direction for approximately 2,034 linear feet before its eventual confluence with Alberhill Creek. During high storm events, the middle reach of Drainage A east of Baker Street drains into one of three seasonal ponds (described separately below) before continuing its path northeasterly until its eventual confluence with Alberhill Creek. Drainage A extends up to six feet in width as evidenced by water marks, changes in soil characteristics, and bent vegetation. This feature was historically mapped as a blue-line stream; however,

development west of the site has affected the upstream watershed, resulting in degradation to onsite hydrology and faint stream flow indicators in the upstream reach averaging two feet in width.

Drainage B

Regional Board jurisdiction associated with Drainage B totals 0.13 acre, none of which is State wetland.

Drainage B is an isolated earthen ephemeral drainage that enters the Project site from the west along the edge of a dilapidated rural residence and extends in a northeasterly direction for approximately 716 linear feet towards Baker Street before dissipating as sheet flow. Drainage B conveys storm water flows and receives irrigation runoff from the adjacent rural residence. The drainage extends up to ten feet in width as evidenced by changes in soil characteristics and bent vegetation.

Drainage C

Regional Board jurisdiction associated with Drainage C totals 0.03 acre, none of which is State wetland.

Drainage C is an erosional ephemeral drainage that originates offsite from the adjacent hillsides and extends a northerly direction for approximately 638 linear feet towards Baker Street. Drainage C is an isolated feature averaging two feet in width as evidenced by changes in soil characteristics and eroded channel banks in the upstream reach. The drainage bottom contains cobbles and was completely dry during the field investigations.

Drainage D

Regional Board jurisdiction associated with Drainage D totals 0.07 acre, none of which is State wetland.

Drainage D is an erosional drainage that enters the Project site from the southwest, and meanders in a northeasterly direction for approximately 899 linear feet before exiting the parcel boundary at an existing rural residence. Drainage D ranges between two and six feet in width and contains eroded banks and cobbles. This feature conveys flow only in direct response to precipitation and was completely dry during the field investigations.

Drainage E

Regional Board jurisdiction associated with Drainage E totals 0.02 acre, none of which is State wetland.

Drainage E is an earthen ephemeral drainage that originates as run-off from Nichols Road. This feature extends easterly across the northern portion of the Project site for approximately 280 linear feet before dissipating as sheet flow. The drainage averages three feet in width, and depending on rainfall amounts, conveys a surficial connection to Alberhill Creek. This drainage lacks hydrophytic vegetation and was completely dry during the field investigations.

Drainage F

Regional Board jurisdiction associated with Drainage F totals 0.20 acre, none of which is State wetland.
Drainage F is an ephemeral drainage that runs parallel to the north side of Nichols Road. This feature extends across the Project site in an easterly direction for approximately 1,480 linear feet before being conveyed through a pipe culvert and losing all sign of flow. Drainage F averages six feet in width as evidenced by bent vegetation and changes in soil characteristics. This feature conveys runoff from the adjacent hillsides Nichols Road and was completely dry during the field investigations.

Seasonal Ponds 1-3

The central portion of the Project site east of Baker Street contains three areas that pond seasonally. These areas are referenced herein as Seasonal Ponds 1, 2, and 3 and are described below.

Seasonal Pond 1

Regional Board jurisdiction associated with Seasonal Pond 1 totals 0.21 acre, all of which consists of State wetlands.

Pond 1 is an isolated seasonal pond that contains a strong alkaline component and supports FAC or wetter dominant species, including salt grass, Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*), vernal barley (*Hordeum intercedens*), and San Jacinto Valley crownscale (*Atriplex coronata var. notatior*). This feature meets State wetland indicators including surface soil cracks, wetland vegetation, and moderately to very strongly alkaline soils.

Seasonal Pond 2

Regional Board jurisdiction associated with Seasonal Pond 2 totals 0.40 acre, all of which consists of State wetlands.

Pond 2 is an isolated seasonal pond that exhibits strong alkaline components. This feature was generally bare during the field assessment, but meets the State wetland definition due to landscape position and proximity to Alberhill Creek, temporal shifts in vegetation, the presence of surface soil cracks, and seasonally ponded soils.

Seasonal Pond 3

Regional Board jurisdiction associated with Seasonal Pond 3 totals 0.63 acre, all of which consists of State wetlands.

Seasonal Pond 3 is supported by surface water and Drainage A flows, and occurs in-line with Drainage A. This area ponds during the wet season and supports Coulter's goldfields, vernal barley, and bare areas during most years. This feature is considered a State wetland due to the presence of surface soil cracks, vegetation that is dominated by hydrophytes and/or is lacking, and contains seasonally ponded soils.

C. CDFW Jurisdiction

CDFW jurisdiction at the site totals approximately 3.66 acres, of which 2.99 acres consist of riparian habitat.

CDFW jurisdiction at the Project site includes Alberhill Creek, six ephemeral drainages (Drainages A, B, C, D, E, and F) and a seasonal pond (Seasonal Pond 3) that is associated with a stream course. Drainages A-F are earthen drainages that convey surface water only in direct response to precipitation (i.e., rain). These features exhibit stream flow indictors that include changes in soil characteristics, drainage patterns, bent vegetation, and/or defined channel banks. Seasonal Pond 3 is an in-line feature that occurs on the east side of Baker Street and is associated with Drainage A. As these features exhibit biological and physical indictors of a stream course and/or contain habitat associated with a discernable stream course, they are subject to Section 1602 of the Fish and Game Code.

There are also several unmapped features in the uplands where the width of its course cannot reasonably be identified by physical or biological indicators. Areas lacking a defined stream course include topographic features including swales, rills, and erosional areas that do not exhibit obvious flow sign or biological indicators indicative of a channel. Such features are not

considered rivers, streams, or lakes. Areas lacking a discernable stream course are not subject to regulation by the CDFW under Section 1602 of the Fish and Game Code.

Additional features excluded from CDFW jurisdiction include a stock pond on the west side of Baker Street and two seasonal ponds (Seasonal Ponds 1 and 2) that occur on the east side of Baker Street. The stock pond is an artificial feature that was constructed in the uplands for purposes of agricultural crop irrigation and/or stock watering and is not associated with any river, stream, or lake. Seasonal Ponds 1 and 2 contain aquatic resources but are not associated with a river, stream, or lake. As a result, these features are not subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Table 2 below summarizes CDFW jurisdictional waters at the Project site. A description of the CDFW jurisdictional drainage features at the Project site is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 3C]. Site photographs are provided as Exhibit 4.

Table 2: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Alberhill Creek	0	2.36	2.36	730
Drainage A	0.18	0	0.18	2,304
Drainage B	0.13	0	0.13	716
Drainage C	0.03	0	0.03	638
Drainage D	0.09	0	0.09	899
Drainage E	0.04	0	0.04	280
Drainage F	0.20	0	0.20	1,480
Seasonal Pond 3	0	0.63	0.63	N/A
Total	**0.67**	**2.99**	**3.66**	**6,777**

Alberhill Creek

CDFW jurisdiction associated with Alberhill Creek totals 2.36 acres, all of which consist riparian stream.

Alberhill Creek is blue-line drainage that enters the Project from the northeast and extends across the site in a northwesterly direction for approximately 730 linear feet before exiting the site. Alberhill Creek conveys perennial flows and is tributary to Temescal Creek and eventually, the Pacific Ocean. The portion of the low flow channel in the Project site is approximately 14 feet in width and exhibited flowing water and ponding at the time of the field assessment. Alberhill

Creek is dominated by southern willow scrub riparian habitat with a disturbed alkali playa component occurring in the abutting floodplain. As depicted in Exhibit 3C, a small amount of riparian habitat associated with Alberhill Creek overhangs the portion of Nichols Road within the offsite area. A majority of the alkali playa component in the northeastern portion of the site exhibits at least some degree of soil disturbance and alterations to the hydrologic regime as evidenced by the presence tire tracks, road ruts, and unauthorized dumping. Since the playa is both adjacent to, and hydrologically connected to, Alberhill Creek, it is subject to CDFW jurisdiction under Section 1602 of the Fish and Game Code.

Dominant riparian vegetation associated with Alberhill Creek includes salt cedar, black willow, arroyo willow, and, with alkali bulrush, common toad rush, and cattail. Other common plants include common nettle, shortpod mustard, silverscale saltbush, western ragweed, saltgrass, and annual rabbitsfoot grass.

The larger floodplain abutting the creek exhibits sign of temporary inundation during the wet season as evidenced by the presence of surface soil cracks, salt crusts, ponding, and patchy alkali-adapted species, including salt grass, alkali weed, San Jacinto Valley crownscale, goldfields, bush seepweed, and small flowered ice plant. These areas contain riparian alkali playa habitat associated with Alberhill Creek and have the potential to support aquatic resources.

Drainages A-F

CDFW jurisdiction associated with Drainages A, B, C, D, E, and F totals 0.67 acre, none of which is riparian.

Vegetation associated with Drainages A, B, C, D, E, and F includes foxtail barley, soft chess, ripgut brome, red brome, rattail fescue, common Mediterranean grass, cheeseweed, common fiddleneck, stinknet, annual mustard, summer mustard, goldenbush, and London rocket.

<u>Drainage A</u>

CDFW jurisdiction associated with Drainage A totals 0.18 acre, none of which is riparian.

Drainage A is an earthen ephemeral drainage that enters the Project site from the west and extends in a northeasterly direction for approximately 2,304 linear feet before its eventual confluence with Alberhill Creek. During high storm events, the middle reach of Drainage A east of Baker Street drains into one of three seasonal ponds (described separately below) before continuing its path northeasterly until it’s eventual confluence with Alberhill Creek. Drainage A extends up to six feet in width as evidenced by water marks, changes in soil characteristics, and bent vegetation. This feature was historically mapped as a blue-line stream; however,

development west of the site has affected the upstream watershed, resulting in degradation to onsite hydrology and faint stream flow indicators in the upstream reach averaging two feet in width.

Drainage B

CDFW jurisdiction associated with Drainage B totals 0.13 acre, none of which is riparian.

Drainage B is an isolated earthen ephemeral drainage that enters the Project site from the west along the edge of a dilapidated rural residence and extends in a northeasterly direction for approximately 716 linear feet towards Baker Street. Drainage B conveys storm water flows and receives irrigation runoff from the adjacent rural residence. The drainage extends up to ten feet in width as evidenced by changes in soil characteristics and bent vegetation.

Drainage C

CDFW jurisdiction associated with Drainage C totals 0.03 acre, none of which is riparian.

Drainage C is an erosional ephemeral drainage that originates offsite from the adjacent hillsides and extends a northerly direction for approximately 638 linear feet towards Baker Street before dissipating onsite. Drainage C is an isolated features averaging two feet in width as evidenced by changes in soil characteristics and eroded channel banks in the upstream reach. The drainage bottom contains cobbles and was completely dry during the field investigations.

Drainage D

CDFW jurisdiction associated with Drainage D totals 0.09 acre, none of which is riparian.

Drainage D is an erosional drainage that enters the Project site from the southwest, and meanders in a northeasterly direction for approximately 899 linear feet before exiting the parcel boundary at an existing rural residence. Drainage D ranges between two and six feet in width and contains eroded banks and cobbles. This feature conveys flow only in direct response to precipitation and was completely dry during the field investigations.

Drainage E

CDFW jurisdiction associated with Drainage E totals 0.04 acre, none of which is riparian.

Drainage E is an earthen ephemeral drainage that originates as run-off from Nichols Road. This feature extends easterly across the northern portion of the Project site for approximately 280

linear feet before dissipating as sheet flow. The drainage averages three feet in width, and depending on rainfall amounts, conveys a surficial connection to Alberhill Creek. This drainage lacks riparian vegetation and was completely dry during the field investigations.

Drainage F

CDFW jurisdiction associated with Drainage F totals 0.20 acre, none of which is riparian.

Drainage F is an ephemeral drainage that runs parallel to the north side of Nichols Road. This feature extends in an easterly direction within the Project site for approximately 1,480 linear feet before being conveyed through a pipe culvert and losing all sign of flow. Drainage F averages six feet in width as evidenced by bent vegetation and changes in soil characteristics. This feature conveys runoff from the adjacent hillsides Nichols Road and was completely dry during the field investigations.

Seasonal Pond 3

CDFW jurisdiction associated with Seasonal Pond 3 totals 0.63 acre, all of which riparian.

Seasonal Pond 3 is supported by surface water and Drainage A flows, and occurs in-line with Drainage A. This area ponds during the wet season and supports Coulter's goldfields, vernal barley, and bare areas during most years. This feature contains surface soil cracks, vegetation that is dominated by hydrophytes and/or is lacking, and contains seasonally ponded soils. As this feature is associated with a discernable stream course (Drainage A), it is subject to Section 1602 of the Fish and Game Code.

If you have any questions, please contact Lesley Lokovic-Gamber at (949) 340-3968.

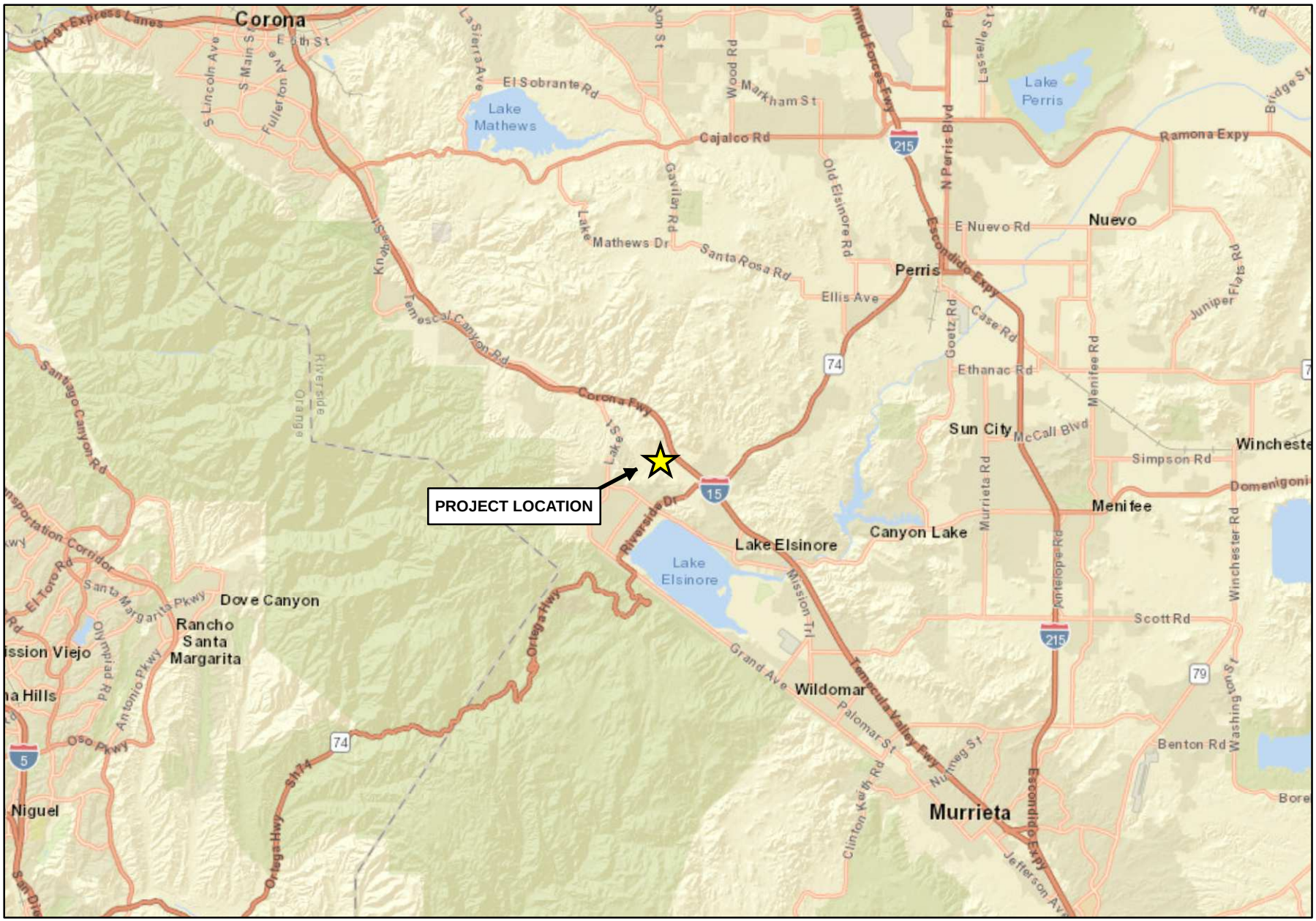
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



Lesley Lokovic-Gamber
Senior Regulatory Specialist

p:1514-05a.jd



Source: ESRI World Street Map

N

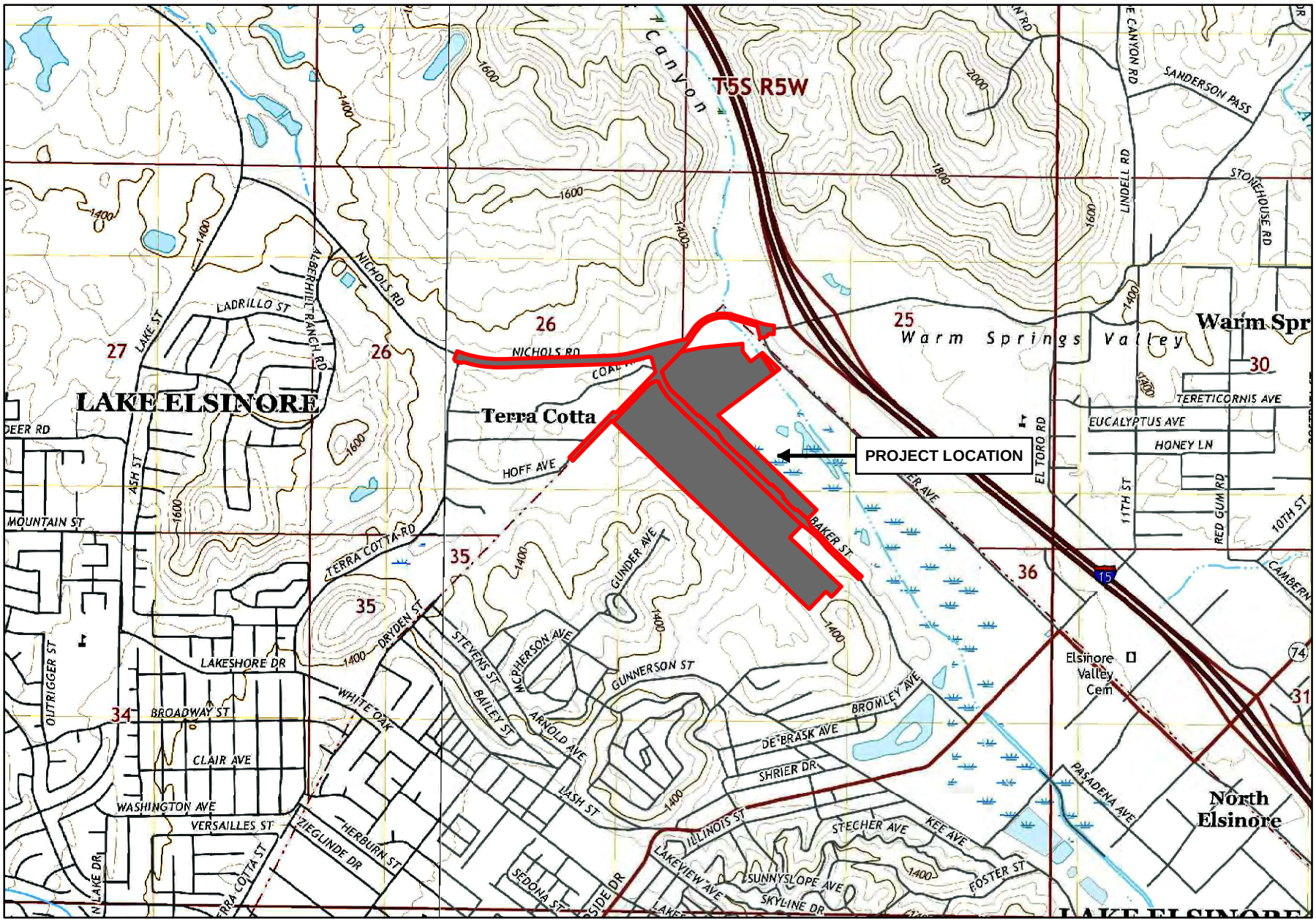
0 2 4 8 Miles

BAKER INDUSTRIAL PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



BAKER INDUSTRIAL PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project - Onsite

Project - Offsite

Wetland Waters of the U.S.

Non-Jurisdictional Feature

Sampling Point

Photo Location

N

0 237.5 475 950

Feet

1 inch = 475 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: November 20, 2023

BAKER INDUSTRIAL PROJECT

Corps Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

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Project - Onsite

Project - Offsite

Non-Wetland Waters of State

Wetland Waters of the State

Non-Jurisdictional Feature

Width in Feet

Sampling Point

Photo Location

N

0 237.5 475 950

Feet

1 inch = 475 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: November 20, 2023

BAKER INDUSTRIAL PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

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Project - Onsite

Project - Offsite

CDFW Non-Riparian Stream

CDFW Riparian

Non-Jurisdictional Feature

Width in Feet

Photo Location

N

0 237.5 475 950

Feet

1 inch = 475 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: October 31, 2023

BAKER INDUSTRIAL PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3C

X:\1100 AFTER THE REST\1514-05BKIN\GIS\DelineationGIS\1514-05_CDFWJD.mxd



Photograph 1: 02/09/2021. View of uplands within northern portion of Project site looking west. Photo taken from dirt road in northern portion of Project site.



Photograph 2: 02/09/2021. View depicting riparian/wetland edge associated with Alberhill Creek. Photo taken from northern portion of Project site looking south/ southeast.



Photograph 3: 02/09/2021. View depicting alkali playa associated with Alberhill Creek looking north. Note the presence of tire tracks, dumping, and disturbed vegetation in this portion of the playa.



Photograph 4: 02/09/2021. Representative view of abutting alkali playa looking east towards Alberhill Creek in conservation area. Note the presence of surface soil cracks and salt crust.

GLENN LUKOS ASSOCIATES

Exhibit 4 – Page 1

BAKER INDUSTRIAL PROJECT

Site Photographs



Photograph 5: 02/09/2021. View depicting Alberhill Creek looking upstream. Photo taken from edge of low-flow channel looking southeast. Note the presence of standing/flowing water and wetland/riparian vegetation.



Photograph 6: 02/09/2021. View of disturbed alkali playa habitat adjacent to Alberhill Creek looking southeast/offsite.



Photograph 7: 02/09/2021. Downstream extent of Drainage A looking upstream/southwest.



Photograph 8: 02/09/2021. View of uplands looking east towards Alberhill Creek where the Drainage A stream course is no longer discernible.



Photograph 9: 02/09/2021. View of Drainage A looking south. Note the presence of a defined stream course in this portion of the channel.



Photograph 10: 02/09/2021. Seasonal Pond 3 looking south/southeast. This feature is typically vegetated with Coulter's goldfields during the blooming season.



Photograph 11: 02/09/2021. View of Drainage A looking downstream towards Baker Street.



Photograph 12: 02/09/2021. View depicting uplands located south/southwest of Drainage A where the stream course is no longer extant.



Photograph 13: 02/09/2021. View looking downstream of Drainage C where the stream course is no longer discernible.



Photograph 14: 02/09/2021. Representative view of Drainage C in proposed development area looking upstream.



Photograph 15: 02/09/2021. Upstream reach of Drainage D area looking northwest.



Photograph 16: 02/09/2021. Central portion of Drainage C looking downstream.



Photograph 17: 02/09/2021. Downstream extent of Drainage D looking northeast towards edge of project boundary. Photo depicts where the stream course becomes ill-defined prior to existing the site.



Photograph 18: 02/09/2021. Seasonal Pond 1 looking south in central portion of Project site.



Photograph 19: 02/09/2021. Seasonal Pond 2 located in southeastern portion of Project site looking southeast. This feature is dominated by San Jacinto Valley crownscale and Coulter's goldfields during the blooming period.



Photograph 20: 02/09/2021. Stock pond (non-jurisdictional feature) located on west side of Baker Street. Photo taken from Baker Street looking southwest.



Photograph 21: 07/29/22. View depicting Drainage F facing west.



Photograph 22: 07/29/2022. Additional view of Drainage F facing east.

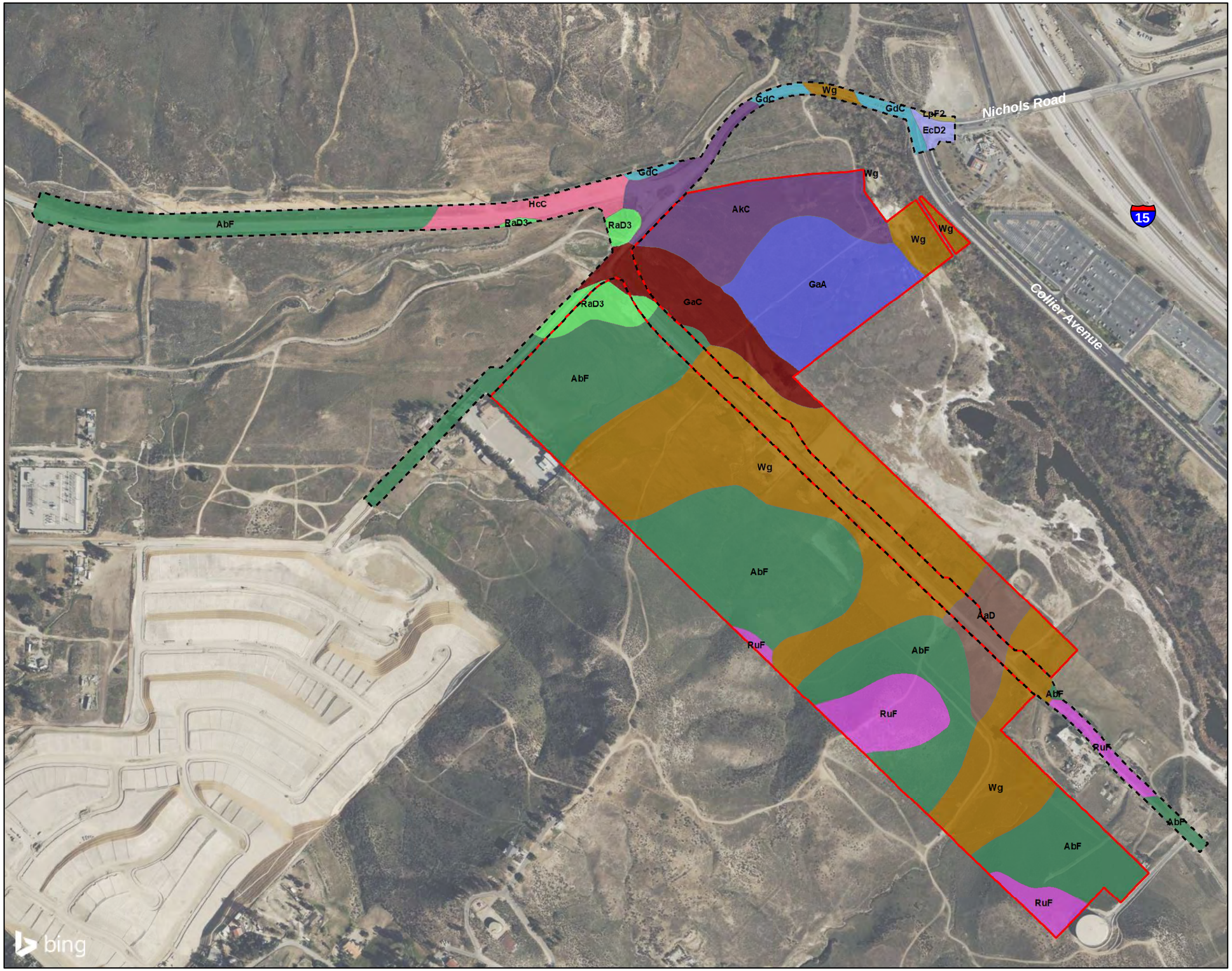


Photograph 23: 07/29/2022. Downstream view of Drainage E facing east.

GLENN LUKOS ASSOCIATES

BAKER INDUSTRIAL PROJECT

Site Photographs



- Project - Onsite
- Project - Offsite
- AaD - Altamont clay, 5 to 15 percent slopes
- AbF - Altamont cobbly clay, 8 to 35 percent slopes
- AkC - Arbuckle loam, 2 to 8 percent slopes
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, erod ed
- GaA - Garretson very fine sandy loam, 0 to 2 percent slopes
- GaC - Garretson very fine sandy loam, 2 to 8 percent slopes
- GdC - Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- RuF - Rough broken land
- Wg - Willows silty clay, saline-alkali

N

0 237.5 475 950

Feet

1 inch = 475 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: October 23, 2023

BAKER INDUSTRIAL PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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APPENDIX A

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nichols Industrial Center City/County: Lake Elsinore/Riverside Sampling Date: 02/09/2021

Applicant/Owner: Ecosystem Investment Partners State: CA Sampling Point: 1

Investigator(s): Chris Waterston, Lesley Lokovic Gamber Section, Township, Range: N/A, T5S, R5W

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 2-8

Subregion (LRR): C Lat: 33.705869 Long: -117.360439 Datum: NAD 83

Soil Map Unit Name: Willows NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

Edge of Alberhill Creek. Perennial waters present. Soils were problematic due to alkaline conditions. Salt crust observed within first 3"

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix goodingii	50	Y	FACW
2. Tamarisk ramosissima	15	N	FAC
3.			
4.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Herb Stratum (Plot size: _____)			
1. Bolboschoenus maritimus	20	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 1	x 1 = 1
FACW species 1	x 2 = 2
FAC species 1	x 3 = 3
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 3 (A)	6 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
12	10YR 3/2	100	N/A				Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✓ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** _____

Remarks:

Problematic soils: Moderately to Very Strongly Alkaline Soils preventing redox formation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ✓ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✓ No _____ Depth (inches): 10-12

Wetland Hydrology Present? **Yes** ✓ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

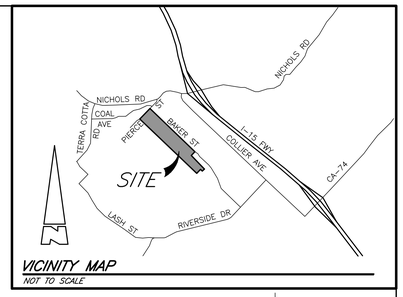
Remarks:

Appendix G

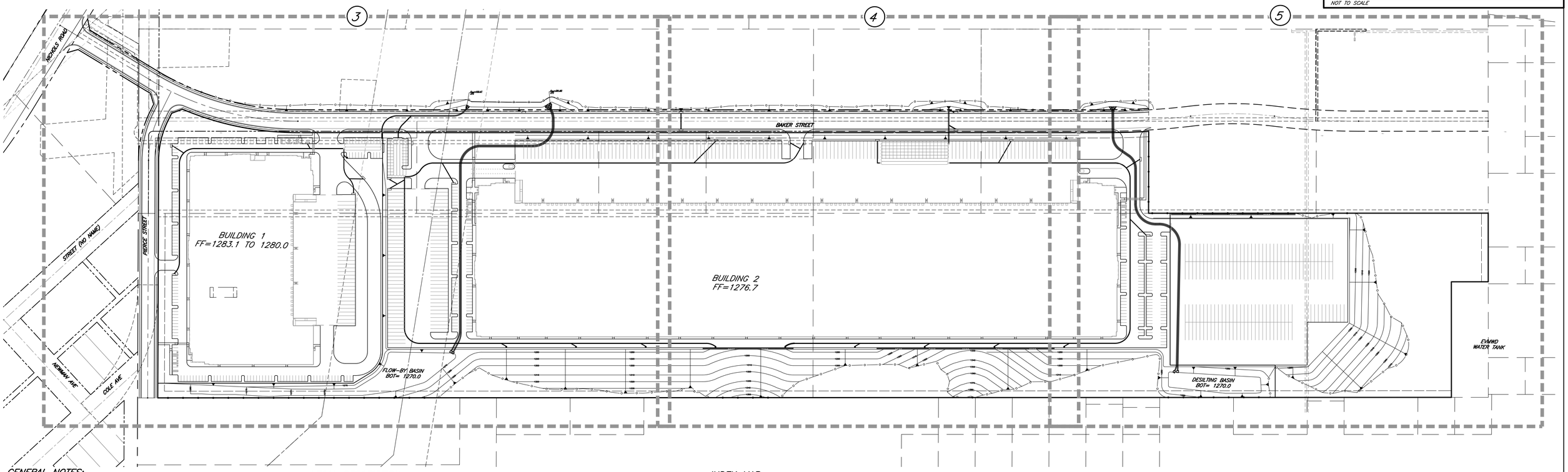
Conceptual Grading Plan

BAKER INDUSTRIAL PROJECT

CONCEPTUAL GRADING PLAN
IN THE CITY OF LAKE ELSINORE



VICINITY MAP
NOT TO SCALE



GENERAL NOTES:

PREPARED: AUGUST 2023

1. TOTAL PROJECT GROSS ACREAGE IS 67.88 ACRES.
2. ACREAGE SUMMARY

ITEM	ACREAGE	PERCENT
A. INDUSTRIAL NET AREA	61.54 AC	90.66%
B. PUBLIC STREETS	6.34 AC	9.34%
TOTAL	67.88 AC	100.00%

3. PROPOSED NO. OF PARCELS: 3
4. EXISTING GENERAL PLAN DESIGNATION: INDUSTRIAL
5. PROPOSED GENERAL PLAN DESIGNATION: INDUSTRIAL
6. EXISTING LAND USE: VACANT
7. PROPOSED LAND USE: INDUSTRIAL
8. EXISTING ZONING: INDUSTRIAL
9. PROPOSED ZONING: INDUSTRIAL
10. ADJACENT LAND USE:
    NORTH:
    GENERAL PLAN – RESIDENTIAL MIXED USE
    ZONING – RESIDENTIAL MIXED USE
    EXISTING USE – VACANT
    SOUTH:
    GENERAL PLAN – RESIDENTIAL
    ZONING – RESIDENTIAL
    EXISTING USE – VACANT
    EAST:
    GENERAL PLAN – INDUSTRIAL
    ZONING – INDUSTRIAL
    EXISTING USE – VACANT
    WEST:
    GENERAL PLAN – RESIDENTIAL
    ZONING – RESIDENTIAL
    EXISTING USE – VACANT
11. SOURCE OF TOPOGRAPHY IS AERIAL TOPOGRAPHY FLOWN ON AUGUST 18TH, 2020 BY KWC ENGINEERS.
12. SCHOOL DISTRICT: LAKE ELSINORE UNIFIED SCHOOL DISTRICT
13. STREETS GRADES: 1.0% MINIMUM, 10% MAXIMUM.
14. ALL CONC. GUTTERS AND SWALES SHALL HAVE A MINIMUM GRADE OF: 0.5%
15. ALL A.C. PAVING SHALL HAVE A MINIMUM GRADE OF: 1.0%
16. CONCRETE PAVEMENT SHALL BE PROVIDED FOR ALL ROADWAYS THAT HAVE STREET GRADES EXCEEDING 10% OR AS APPROVED BY THE CITY OF CORONA.
17. ALL SLOPES ADJACENT TO STREET R.O.W. TO BE MAINTAINED BY P.O.A.
18. ALL SLOPES SHOWN HEREON ARE 2:1 MAXIMUM UNLESS OTHERWISE NOTED.
19. THE SUBJECT PROPERTY IS WITHIN AN UNMAPPED FLOOD ZONE X.
20. THE SUBJECT PROPERTY IS WITHIN A SPECIAL FIRE HAZARD ZONE.
21. THE SUBJECT PROPERTY IS WITHIN A SANTA ANA RIVER WATERSHED.

LEGAL DESCRIPTION:

PARCEL A: (APN: 378-020-014)

PARCEL 1:

ALL THAT PORTION OF LOT 1, IN BLOCK "A" OF ELSINORE, AND OF LOW ROLLING HILLS ADJOINING SAID LOTS ON THE SOUTHWEST, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8 PAGE 377 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED BY CHARLES HUDSON AND DESSIE HUDSON, HUSBAND AND WIFE, TO GREAT COASTAL OIL CORPORATION, A CORPORATION AND RECORDED ON THE 8TH DAY OF MAY 1936, IN BOOK 275 AT PAGE 344 OF OFFICIAL RECORDS, RIVERSIDE COUNTY, CALIFORNIA; THENCE SOUTH FORTY-SIX DEGREES FIFTY MINUTES EAST (SOUTH 46° 50' EAST) A DISTANCE OF 236 FEET; THENCE NORTH FORTY-THREE DEGREES TEN MINUTES EAST (NORTH 43° 10' EAST) A DISTANCE OF 300 FEET TO THE
TRUE POINT OF BEGINNING; THENCE NORTH FORTY-THREE DEGREES TEN MINUTES EAST (NORTH 43° 10' EAST) A DISTANCE OF 30 FEET; THENCE NORTH FORTY-SIX DEGREES FIFTY MINUTES WEST (NORTH 46° 50' WEST) A DISTANCE OF 80 FEET; THENCE SOUTH FORTY-THREE DEGREES TEN MINUTES WEST (SOUTH 43° 10' WEST) A DISTANCE OF 30 FEET; THENCE SOUTH FORTY-SIX DEGREES
FIFTY MINUTES EAST (SOUTH 46° 50' EAST) A DISTANCE OF 80 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING THEREFROM MINERALS, OIL AND GAS AS RESERVED BY DEED RECORDED MAY 8, 1936 IN
BOOK 275 PAGE 344.

PARCEL 2: (APN: 378-020-015 AND 378-020-016)

THE NORTHWEST HALF OF THE SOUTHWEST HALF OF THE FOLLOWING DESCRIBED PROPERTY:

ALL THAT PORTION OF LOTS 1, 2 AND 3, IN BLOCK "A" OF ELSINORE, AND OF LOW ROLLING HILLS
ADJOINING SAID LOTS ON THE SOUTHWEST, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 8 PAGE 377 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA, PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHERLY CORNER OF LOT 50 OF COUNTRY CLUB HEIGHTS UNIT "B", AS SHOWN BY MAP ON FILE IN BOOK 17, PAGES 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA; THENCE NORTH 43° 24' EAST ALONG THE SOUTHERLY EXTENSION OF THE MOST WESTERLY LINE AND ALONG THE MOST WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO ABE CORLIN AND HENRY C. SCHULTZ, BY DEED RECORDED NOVEMBER 15, 1928 IN BOOK 789, PAGE 273 OF DEEDS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TO THE MOST NORTHERLY POINT IN SAID MOST WESTERLY LINE, FOR THE POINT OF BEGINNING; THENCE SOUTH 46° 50' EAST, FORMERLY RECORDED SOUTH 47° EAST, 3067.6 FEET; THENCE NORTH 43° 10' EAST, FORMERLY RECORDED NORTH 43° EAST, 1100 FEET TO THE MOST EASTERLY CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO GREAT COASTAL OIL CORPORATION, BY DEED RECORDED MAY 8, 1936 IN BOOK 275 PAGE 344 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA; THENCE NORTH 46° 50' WEST ALONG THE NORTHEASTERLY LINE SO CONVEYED TO GREAT COASTAL OIL CORPORATION, 3960 FEET TO THE NORTHWESTERLY LINE OF LOT 1 IN BLOCK "A", ABOVE DESCRIBED; THENCE SOUTHWESTERLY ALONG SAID NORTHWESTERLY LINE AND ALONG THE SOUTHWESTERLY PROLONGATION OF SAID NORTHWESTERLY LINE, TO A POINT WHICH BEARS NORTH 46° 50' WEST FROM THE POINT OF BEGINNING; SAID POINT BEING THE MOST WESTERLY CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO GREAT COASTAL OIL CORPORATION, HEREINABOVE REFERRED TO; THENCE SOUTH 46° 50' EAST, ALONG THE SOUTHWESTERLY LINE OF SAID PARCEL, TO THE POINT OF BEGINNING;

EXCEPTING THEREFROM ALL THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST WESTERLY CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO GREAT COASTAL OIL CORPORATION, BY DEED RECORDED MAY 8, 1936 IN BOOK 275 PAGE 344 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA; THENCE SOUTH 46° 50' EAST, 236 FEET; THENCE NORTH 43° 10' EAST, 300 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 43° 50' EAST, 80 FEET; THENCE NORTH 46° 50' WEST, 80 FEET; THENCE SOUTH 43° 10' WEST, 30 FEET; THENCE SOUTH 46° 50' EAST, 80 FEET TO THE POINT OF BEGINNING;

ALSO EXCEPTING THEREFROM A STRIP(S) OF LAND 1 ROD WIDE, 4-½ FEET ON THE EASTERLY SIDE
AND 12 FEET ON THE WESTERLY SIDE OF THE CENTER LINE OF THE PIPELINE OF THE TEMESCAL WATER COMPANY, AS NOW LAID OVER AND ACROSS THE HEREINABOVE DESCRIBED PROPERTY" AS CONVEYED TO THE TEMESCAL WATER COMPANY, A CORPORATION, BY DEED RECORDED MAY 12, 1917
IN BOOK 362 PAGE 56, OF DEEDS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

ALSO EXCEPTING THEREFROM THE 1/8 PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR WHICH MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE HUDSON, RECORDED MAY 8, 1936 IN BOOK 275 PAGE 344 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

INDEX MAP

SCALE: 1"=100'

PARCEL B: (APN: 378-020-028)

PARCEL 1 OF PARCEL MAP NO. 11395, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE
OF CALIFORNIA, ON FILE IN BOOK 58 PAGE 68 OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM 1/8 PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR WHICH MAY BE ACCRUED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE HUDSON, RECORDED MAY 8, 1936 IN BOOK 275 PAGE 344 OF OFFICIAL RECORDS, RIVERSIDE
COUNTY RECORDS.

PARCEL C: (APN: 378-020-037 AND OTHER PROPERTY)

PARCEL 2 OF PARCEL MAP 8585, AS SHOWN BY MAP ON FILE IN BOOK 36, PAGE 29 OF PARCEL MAPS,
RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THE 1/8TH PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR WHICH MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE HUDSON, RECORDED MAY 8, 1936 IN BOOK 275, PAGE 344 OF OFFICIAL RECORDS, RIVERSIDE
COUNTY RECORDS.

PARCEL D: (APN: 378-020-031)

PARCEL 4 OF PARCEL MAP NO. 11395, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE
OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 58, PAGE 68, OF PARCEL MAPS, IN THE OFFICE OF
THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THE 1/8TH PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR WHICH MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE HUDSON, RECORDED MAY 8, 1936 IN BOOK 275, PAGE 344, OF OFFICIAL RECORDS, RIVERSIDE
COUNTY RECORDS.

PARCEL E: (APN: 378-020-048)

PARCEL 1 :

THE SOUTHEAST ONE-HALF OF THE SOUTHWEST ONE-HALF OF THE FOLLOWING DESCRIBED
PROPERTY:

ALL THAT PORTION OF LOTS 1, 2 AND 3 IN BLOCK A OF ELSINORE, AND OF LOW ROLLING HILLS ADJOINING SAID LOTS ON THE SOUTHWEST, AS SHOWN BY MAP ON FILE IN BOOK 8 PAGE 377 OF MAPS, RECORDS OF SAN DIEGO COUNTY, CALIFORNIA, PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MOST NORTHERLY CORNER OF LOT 50 OF COUNTRY CLUB HEIGHTS, UNIT "B" AS SHOWN BY MAP ON FILE IN BOOK 17 PAGES 25 AND 26 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA;

THENCE NORTH 43° 24' EAST, ALONG THE SOUTHERLY EXTENSION OF THE MOST WESTERLY LINE AND ALONG THE MOST WESTERLY LINE OF THAT CERTAIN PARCEL OF LAND CONVEYED TO ABE CORLIN AND HENRY C. SCHULTZ, BY DEED RECORDED NOVEMBER 15, 1928 IN BOOK 789 PAGE 273 OF
DEEDS, RECORDS OF RIVERSIDE COUNTY, TO THE MOST NORTHERLY POINT IN SAID MOST WESTERLY LINE, FOR THE POINT OF BEGINNING;

THENCE 46° 50' EAST, FORMERLY RECORDED SOUTH 47° EAST. 3067.6 FEET;

THENCE NORTH 43° 10' EAST, FORMERLY RECORDED NORTH 43° EAST, 1100 FEET TO THE MOST EASTERLY CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO GREAT COASTAL OIL CORPORATION, BY DEED RECORDED MAY 8, 1936 IN BOOK 275 PAGE 344 OF OFFICIAL RECORDS OF
SAID RIVERSIDE COUNTY;

THENCE NORTH 46° 50' WEST, ALONG THE NORTHEASTERLY LINE OF SAID PARCEL SO CONVEYED TO GREAT COASTAL OIL CORPORATION, 3960 FEET TO THE NORTHWESTERLY LINE OF LOT 1 IN BLOCK A,
ABOVE DESCRIBED;

THENCE SOUTHWESTERLY ALONG SAID NORTHWEST LINE AND ALONG THE SOUTHWESTERLY PROLONGATION OF SAID NORTHWESTERLY LINE, TO A POINT WHICH BEARS NORTH 46° 50' WEST FROM THE POINT OF BEGINNING, SAID POINT BEING THE MOST WESTERLY CORNER OF THAT CERTAIN PARCEL OF LAND CONVEYED TO GREAT COASTAL OIL CORPORATION, HEREINABOVE
REFERRED TO;

THENCE SOUTH 46° 50' EAST, ALONG THE SOUTHWESTERLY LINE OF SAID PARCEL, TO THE POINT OF
BEGINNING;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO ELSINORE VALLEY MUNICIPAL WATER DISTRICT, A PUBLIC CORPORATION BY DEED RECORDED APRIL 8, 1987 AS INSTRUMENT NO. 96282 OF OFFICIAL RECORDS.

PARCEL 2 :

AN EASEMENT FOR ROAD PURPOSES, 20 FEET WIDE, OVER AND ACROSS THE EXISTING ROAD, THE
CENTER LINE BEING THE NORTHEASTERLY LINE OF THE ABOVE DESCRIBED PROPERTY AND THE
NORTHWESTERLY EXTENSION OF SAID LINES AS EXTENDED TO THE SOUTHEASTERLY LINE OF PIERCE STREET, EXCEPTING THEREFROM THAT PORTION INCLUDED WITH PARCEL E ABOVE.

EXCEPTING THEREFROM 1/8TH INTEREST OF ALL OIL, GAS AND MINERAL RIGHTS THEREOF.

PARCEL F: (APN: 378-020-029)

PARCEL 2 OF PARCEL MAP NO. 11395, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE
OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 58, PAGE 68 OF PARCEL MAPS, RECORDS OF
RIVERSIDE COUNTY, CALIFORNIA.

EXCEPT THE 1/8TH PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR WHICH
MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE
HUDSON, RECORDED MAY 8, 1936 IN BOOK 275, PAGE 344 OF OFFICIAL RECORDS, RIVERSIDE
COUNTY RECORDS.

PARCEL G: (APN: 378-020-030)

PARCEL 3 OF PARCEL MAP NO. 11395, IN THE CITY OF LAKE ELSINORE, COUNTY OF RIVERSIDE, STATE
OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 58, PAGE 68, OF PARCEL MAPS, IN THE OFFICE
OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING THE 1/8TH PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR
WHICH MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE
HUDSON, RECORDED MAY 8, 1936 IN BOOK 275, PAGE 344, OF OFFICIAL RECORDS, RIVERSIDE
COUNTY RECORDS.

PARCEL H: (APN: 378-020-036 AND OTHER PROPERTY)

PARCEL 1 OF PARCEL MAP 8585, AS SHOWN BY MAP ON FILE IN BOOK 36, PAGE 29 OF PARCEL MAPS,
RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THE 1/8TH PART OF ALL OIL, GAS AND MINERALS IN, UNDER OR UPON SAID LAND OR
WHICH MAY BE SECURED THEREFROM, AS RESERVED IN DEED FROM CHARLES HUDSON AND DESSIE
HUDSON, RECORDED MAY 8, 1936 IN BOOK 275, PAGE 344 OF OFFICIAL RECORDS, RIVERSIDE
COUNTY, RECORDS.

UTILITY CONTACTS:

WATER: ELSINORE VALLEY MUNICIPAL WATER DISTRICT
31315 CHANEY STREET
LAKE ELSINORE, CA. 92531
(951) 674-3146

SEWER: ELSINORE VALLEY MUNICIPAL WATER DISTRICT
31315 CHANEY STREET
LAKE ELSINORE, CA. 92531
(951) 674-3146

POWER: SOUTHERN CALIFORNIA EDISON CO.
28100 MENIFEE ROAD
ROMOLAND, CA. 92585
(951) 928-8207
(951) 820-5498

GAS: SOUTHERN CALIFORNIA GAS CO.
1981 W. LUGONIA AVENUE
REDLANDS, CA. 92373
(909) 335-7828

PHONE: VERIZON FIOS
40710 CALIFORNIA OAKS ROAD
MURRIETA, CA 92562
(951) 290-7287

CABLE TV: TIME WARNER CABLE
53017 OBISSIQA STREET
LAKE ELSINORE, CA 92532
(888) 211-1546

ASSESSOR PARCEL NO:

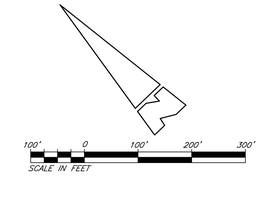
378-020-014, -015, -016,
-028, -029, -030, -031, -036,
-037, -048

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, CCS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "CNPP", "BILL", AND "MLFT" NAD83 (NSRS2011) EPOCH 2010.00 AS SHOWN HEREON. ALL BEARINGS SHOWN ON THIS MAP ARE GRID. QUOTED BEARINGS AND DISTANCES FROM REFERENCE MAPS OR DEEDS AS SHOWN PER THAT RECORD REFERENCE. ALL DISTANCES SHOWN ARE GROUND DISTANCES UNLESS SPECIFIED OTHERWISE. GRID DISTANCES MAY BE OBTAINED BY MULTIPLYING THE GROUND DISTANCE BY A COMBINATION FACTOR OF 0.99991624. CALCULATIONS ARE MADE AT FD.1" I.P., OPEN, DN. 0.4', NE COR. PARCEL 3 PM 58/68 WITH COORDINATES OF: N: 2200713.6419 (GRID), E: 6223632.768 (GRID), USING AN ELEVATION OF 1261.91 (NAVD 88).

BENCHMARK

BENCH MARK NO. C-95-33 ELEV. = 1356.45 MSL (1929 DATUM) ADJUSTED BY VERTCON TO 1358.92 (1988 DATUM) FROM THE INTERSECTION OF LAKESHORE DRIVE AND DRYDEN STREET 40 FEET SOUTHEASTERLY ALONG LAKESHORE AND 40 FEET NORTHEASTERLY TO THE CHISELED "SQUARE" IN TOP OF CURB AT BCR.



OWNER:

RIVERSIDE LEGACY IV NICHOLS ROAD, LLC
1505 BRIDGEWAY, SUITE 107
SAUSALITO, CA 94965
(617) 877-7637
CONTACT: TRYGG DANFORTH

SITE ADDRESS:

17111 BAKER STREET
LAKE ELSINORE, CA 92530

ENGINEER:

KWC ENGINEERS
1880 COMPTON AVENUE, SUITE 100
CORONA, CA. 92881 – 3370
(951) 734-2130
ATTN.: BRANDON BARNETT, P.E.

LEGEND:

	(GRAY)	PROPOSED WATER
	(GRAY)	PROPOSED SEWER
	(GRAY)	PROPOSED RECLAIMED WATER
	(GRAY)	PROPOSED STORM DRAIN
	(GRAY)	EXISTING WATER
	(GRAY)	EXISTING SEWER
	(GRAY)	EXISTING RECLAIMED WATER
	(GRAY)	EXISTING STORM DRAIN
1300	=	EXISTING CONTOUR ELEVATION
1200	=	PROPOSED SURFACE ELEVATION
825.5	=	PROPOSED PAD ELEVATION
44	=	LOT NUMBER
ELEV	=	ELEVATION
FG	=	FINISH GRADE
FL	=	FLOWLINE
FS	=	FINISHED SURFACE
L=	=	LENGTH
W=	=	WIDTH
MIN.	=	MINIMUM
PL	=	PROPERTY LINE
R/W	=	RIGHT OF WAY
GB	=	GRADE BREAK
TC	=	TOP OF CURB
		TOE OF SLOPE (2:1 UNLESS OTHERWISE NOTED)
		TOP OF SLOPE
		ADA PATH OF TRAVEL
		CATCH BASIN

SHEET INDEX

TITLE SHEET	SHEET 1
CROSS SECTION AND DETAILS SHEETS	SHEETS 2
CONCEPTUAL GRADING PLAN SHEETS	SHEETS 3-5

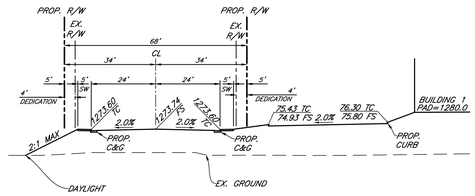
CONCEPTUAL GRADING PLAN
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

PREPARED BY:

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

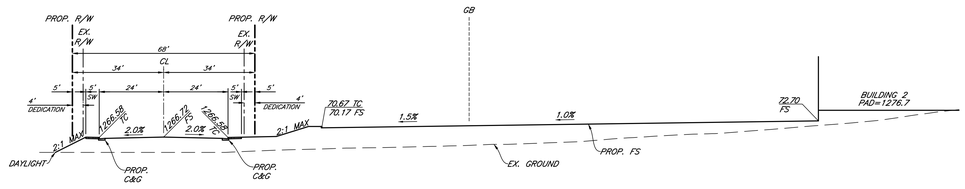
SHEET 1 OF 5 SHEET

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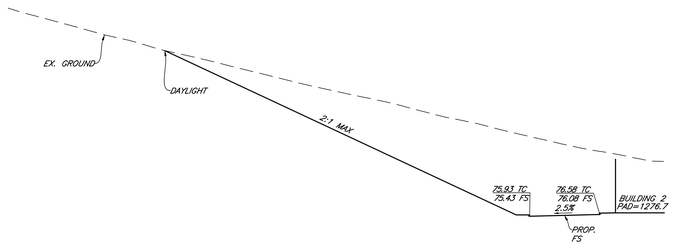
SECTION A–A

SEE SHEET 3
NTS



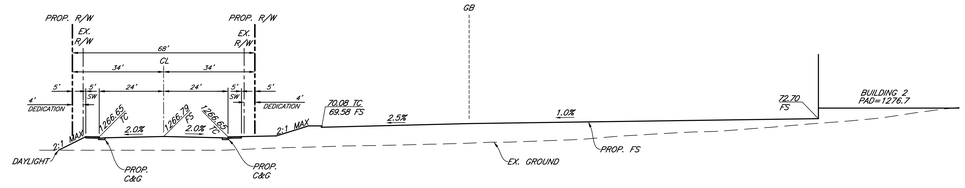
SECTION B–B

SEE SHEET 3
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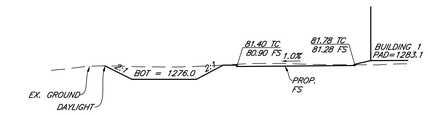
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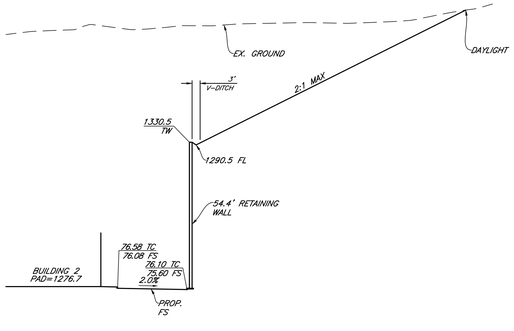
SECTION C–C

SEE SHEET 4
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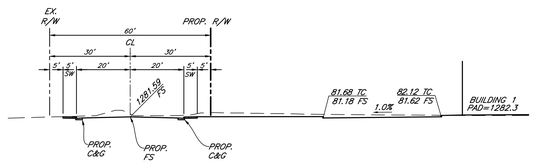
SECTION F–F

SEE SHEET 3
NTS



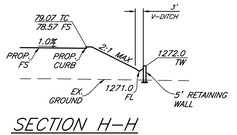
SECTION D–D

SEE SHEET 4
NTS



SECTION G–G

SEE SHEET 3
NTS



SECTION H–H

SEE SHEET 5
NTS

CONCEPTUAL GRADING PLAN
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

PREPARED BY:

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1880 COMPTON AVENUE, SUITE 100 · CORONA, CA. 92881-3370 951-734-2130

SHEET 2 OF 5 SHEET

R:\1\1994\PRELIM\CPH\Conceptual Grading\1994 CONC GRADING 1-2.dwg 08/14/2023 08:33

NICHOLS ROAD

STREET (NO NAME)

PIERCE STREET

DAYLIGHT LINE

4' DEDICATION

2:1 MAX

PROP. R/W

EX. R/W

PROP. C&G

BAKER STREET

PP# 476540?E

INFILTRATION CHAMBERS

PROP. 24" SD

PROP. 36" SD

PROP. CURB

SCE ESMT

SPA CORPORATION ESMT

BUILDING 1
FF=1283.1 TO 1280.0

BUILDING 2
FF=1276.7

ELEV. 1259.0
SD OUTLET #1

Q_{100}=100.47 CFS

RIP RAP
WINGWALL

ACCESS ROAD

ELEV. 1259.0
SD OUTLET #2

Q_{100}=391.60 CFS

RIP RAP
WINGWALL

10.0% MAX.

RASAMAY CORPORATION ESMT.

FLOW-BY BASIN
BOT= 1270.0

71.00 TC
70.00 INV

DAYLIGHT LINE

PROPERTY BNDY.

SEE SHEET 4

OLE AVE

NEWMAN AVE

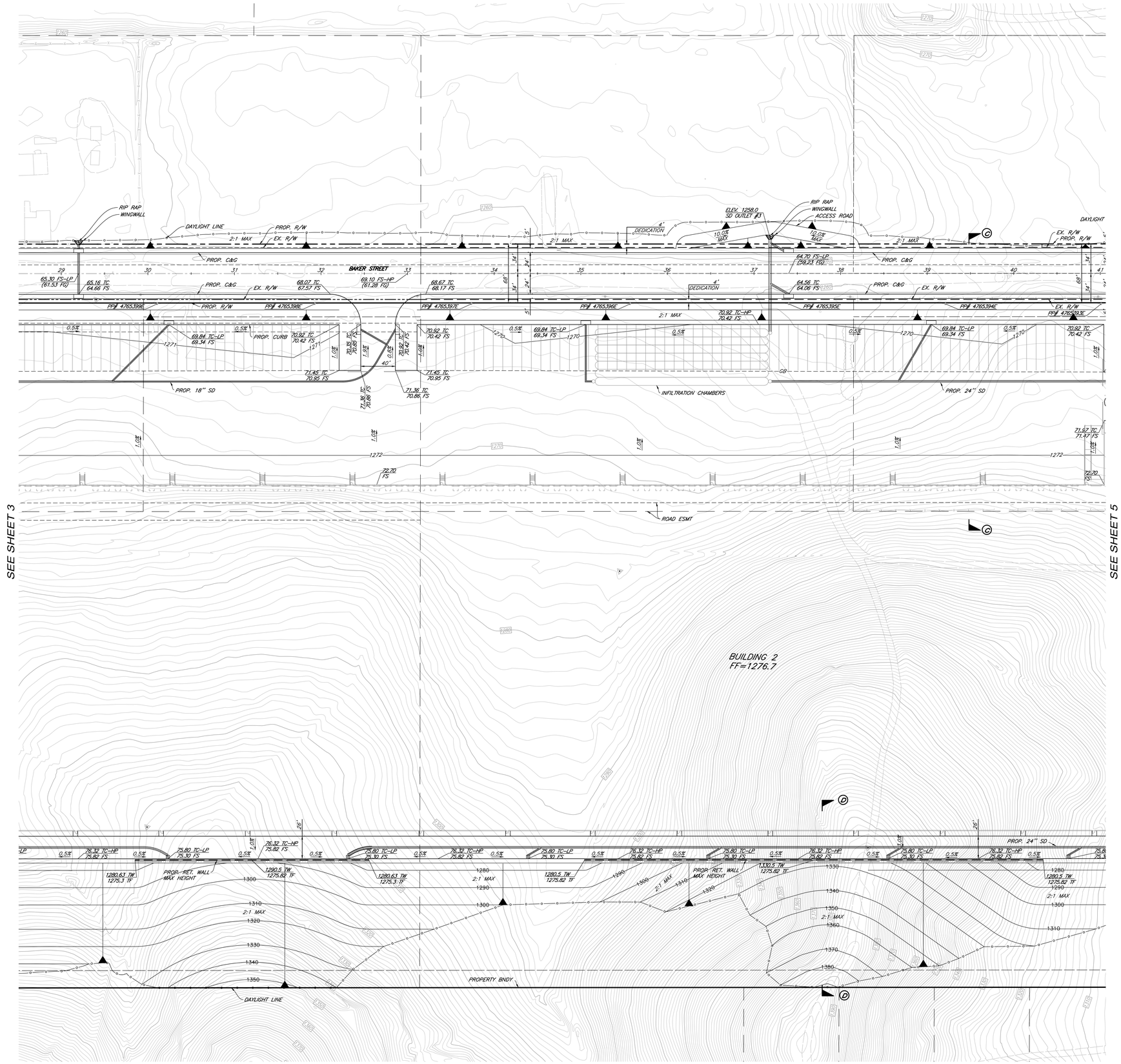
SCALE IN FEET
40' 0 40' 80' 120'

CONCEPTUAL GRADING PLAN
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

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

SHEET
3 OF 5
SHEET

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CONCEPTUAL GRADING PLAN
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

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SHEET
4 OF 5
SHEET

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SEE SHEET 4

DAYLIGHT LINE
ELEV. 1263.0
SD OUTLET #4
RIP RAP
WINGWALL
ACCESS ROAD
EX. R/W
PROP. R/W
10.0% MAX.
PROP. C&G
BAKER STREET
PPM 4765392E
PPM 4765391E
PPM 4765389E
PPM 4765388E
PPM 4765387E
EX. R/W
PROP. 36" SD
PROP. 24" SD
74.58 TC
70.08 FS
68.20 TC
68.70 FS
74.11 TC
72.67 FS
72.80 TC
72.46 FS
70.92 TC
70.42 FS
71.45 TC
70.95 FS
72.41 TC
71.91 FS
73.07 TC
72.57 FS
73.35 TC
72.85 FS
71.97 TC
71.47 FS
72.70
73.24 TC
72.74 FS
73.68 TC--LP
73.18 FS
72.37 TC
72.87 FS
72.88 TC
72.39 FS
72.51 TC
72.01 FS
72.48 TC
71.98 FS
73.00 TC
72.50 FS
73.23 TC
72.73 FS
1267.33 TW
1266.00 TF
1272.00 TW
1267.00 TF
1279.33 TW
1278.00 TF
89.32 TC
88.82 FS
1274.72 TC/GB
1274.22 FS
2:1 MAX
3.0%
1.1%
PROPERTY BNDY
76.36 TC
75.86 FS
76.58 TC
76.08 FS
75.18 FS
75.68 FS
75.15 TC
74.65 FS
75.87 TC
75.37 FS
75.80 TC--LP
75.30 FS
76.30 TC--HP
75.82 FS
75.55 TC
75.05 FS
77.71 TC
77.21 FS
88.60 TC
88.10 FS
92.41 TC
91.91 FS
88.89 TC
88.39 FS
1280.5 TW
1275.62 TF
74.00 TC
70.00 INV
DESILTING BASIN
BOT= 1270.0
EVMWD
WATER TANK

SCALE IN FEET
40' 0 40' 80' 120'

CONCEPTUAL GRADING PLAN
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

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SHEET
5 OF 5
SHEET

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Appendix H

Baker Industrial Hydrology Memorandum

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS

1880 COMPTON AVENUE, SUITE 100 • CORONA, CA 92881
Tel: (951) 734-2130
Fax: (951) 734-9139
www.kwcengineers.com

MEMORANDUM

To: Regional Conservation Authority (RCA) – Western Riverside County
From: Brandon Barnett, KWC Engineers
Date: May 8th, 2025
Subject: Baker Industrial Project, City of Lake Elsinore | Vernal Pool Hydrology

Background

The Baker Industrial project (Project) is comprised of 66.23 acres along Baker Street in the City of Lake Elsinore in Riverside County, California, adjacent to Pierce Street. Baker Street is located southerly to and parallel with the Temescal Wash. The site's existing condition consists of undeveloped land and characterized by steep to flat topography, generally decreasing in elevation from the southwest to the northeast. Several drainage paths are present which convey storm drainage across the Project, conveying flows toward the northeast side of Baker Street. Along the northeast side of Baker Street are three categorized vernal pools that have been identified in the Project's DBESP Analysis (November 2023, GLA). The purpose of this study is to hydrologically model each vernal pool tributary watershed to determine the existing and proposed peak runoff flow and drainage volume for specified rainstorm events. This study also models Watershed A that is on the eastern side of the Project. The hydrologic analysis was prepared using the Rational Method and Unit Hydrograph Method as specified in the Riverside County Hydrology Manual (1978).

Existing Condition

Vernal Pool 1 (VP 1, associated with Watershed C) is located in the middle of the three vernal pools and is positioned roughly 1,800 ft southeast of Pierce Street along the northerly right-of-way of Baker Street and has an existing-condition tributary of 6.40 acres. VP 1 accepts surface sheet flow from the southerly hills directly southwest of Baker Street. Vernal Pool 2 (VP 2, associated with Watershed B) is located roughly 2,400 ft southeast of Pierce Street along Baker Street and has an existing-condition tributary of 27.79 acres. VP 2 accepts flows from a ravine to the southwest. The flowline from said ravine transitions into sheet flow as the terrain flattens closer to Baker Street. Vernal Pool 3 (VP 3, associated with Watershed D) is roughly 860 ft southeast of Pierce Street along Baker Street and has an existing condition tributary of 217.80 acres. VP 3's tributary starts with the Terracina Tract's (TR 36557) existing basin outletting into a historical flowline, conveying flows towards and through the Project before entering VP 3. Watershed A is located on the eastern side of the project and has an existing-condition tributary of 165.2 acres. The tributary starts southwest of the Project where a ravine collects flows as it heads towards the Project property. Through the project property, the flows transition to sheet flow as drainage is conveyed toward to Baker Street and eventually the Temescal Wash. Please refer to the Existing Condition Hydrology Kep Maps for each watershed's tributary area and associated hydrologic data. Table 1 & 2 summarizes the data and results for the 2-, 5- & 10-year storm events for each watershed and associated vernal pool.

TABLE 1 – Existing Condition Rational Method Summary

Watershed	Vernal Pool	Area (ac)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)
A	-	165.2	81.29	127.72	191.55
B	VP2	27.79	21.05	31.91	45.19
C	VP1	6.40	4.56	6.83	9.64
D	VP3	217.79	142.94	217.36	284.45

TABLE 2 – Existing Condition Unit Hydrograph Method Summary

Watershed	Vernal Pool	Area (ac)	2-Year 1-Hour Storm Volume (ac-ft)	5-Year 1-Hour Storm Volume (ac-ft)	10-Year 1-Hour Storm Volume (ac-ft)
B	VP2	27.79	0.4805	0.8556	1.4386
C	VP1	6.40	0.1064	0.1892	0.3153
D	VP3	217.79	9.1641	13.8575	18.0869

Proposed Condition

VP 1 (Watershed C) has a proposed condition tributary of 7.28 acres and accepts existing Baker Street right-of-way flows as well as proposed, treated buildout flows. VP 2 (Watershed B) has a proposed condition tributary of 28.54 acres and accepts flows from approximately half the Project and natural hillside to the east. Once pool 1 and 2s tributaries are picked up and treated via BMPs, they are discharged into a proposed trough system. As concentrated flows leave each pipe, they will hit the splash wall of the trough and spread out across the entire length of the trough system. The VP side of the trough system will have 6" openings every 5ft that will help create a sheet flow condition that mimics existing condition.

VP 3 has a proposed condition tributary of 219.64 acres. VP 3's (Watershed D) tributary starts with the Terracina Tract's existing basin outletting into a historical flowline that is conveyed via a debris basin along the southern boundary of the Project. Offsite flows then bypass the Project through a public storm that discharges into a similar trough system mentioned above. This trough system supports mimicking the existing condition flows for VP 3 by providing both a point source and supportive sheet flow. The trough system is designed to let larger flows during high storm events continue down the existing FL that leads to the Temescal Wash, while still operating returning concentrated flows to sheet flow during smaller storm events. The attached Vernal Pool Exhibit details how the Project will mimic the existing condition of each vernal pool after the Project is constructed. The project will endeavor to minimize dry weather nuisance flows to help prevent nonseasonal discharges to the vernal pools.

Watershed A has a proposed condition tributary of 163.30 acres and starts southwest of the project where a ravine collects flows as it heads towards a proposed flow-by basin along the edge of the project site. Flows then bypass the project through a public storm drain that discharges on the north side of Baker Street and continue down to Temescal Wash as they have done historically. Please refer to the Proposed Condition Hydrology Kep Maps for each watershed and associated hydrologic data. Tables 3 & 4 summarizes the data and results for the 2-, 5- & 10-year storm events for each watershed.

TABLE 3 – Proposed Condition Rational Method Summary

Watershed	Vernal Pool	Area (ac)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)
A	-	163.30	80.36	126.26	189.35
B	VP2	28.54	25.28	36.50	47.41
C	VP1	7.28	5.42	7.77	10.04
D	VP3	219.64	148.75	223.61	287.20

TABLE 4 – Proposed Condition Unit Hydrograph Method Summary

Watershed	Vernal Pool	Area (ac)	2-Year 1-Hour Storm Volume (ac-ft)	5-Year 1-Hour Storm Volume (ac-ft)	10-Year 1-Hour Storm Volume (ac-ft)
B	VP2	28.54	0.7018	1.0433	1.5219
C	VP1	7.28	0.1741	0.2509	0.3470
D	VP3	219.64	9.2511	14.0879	18.1836

The increase in flows and volumes per rainfall event is not expected to adversely affect Vernal Pool 1. An increase in volume output as documented above would help the pool to fill up faster depending on the rainfall season and could result in a slight expansion of the ponded surface area.

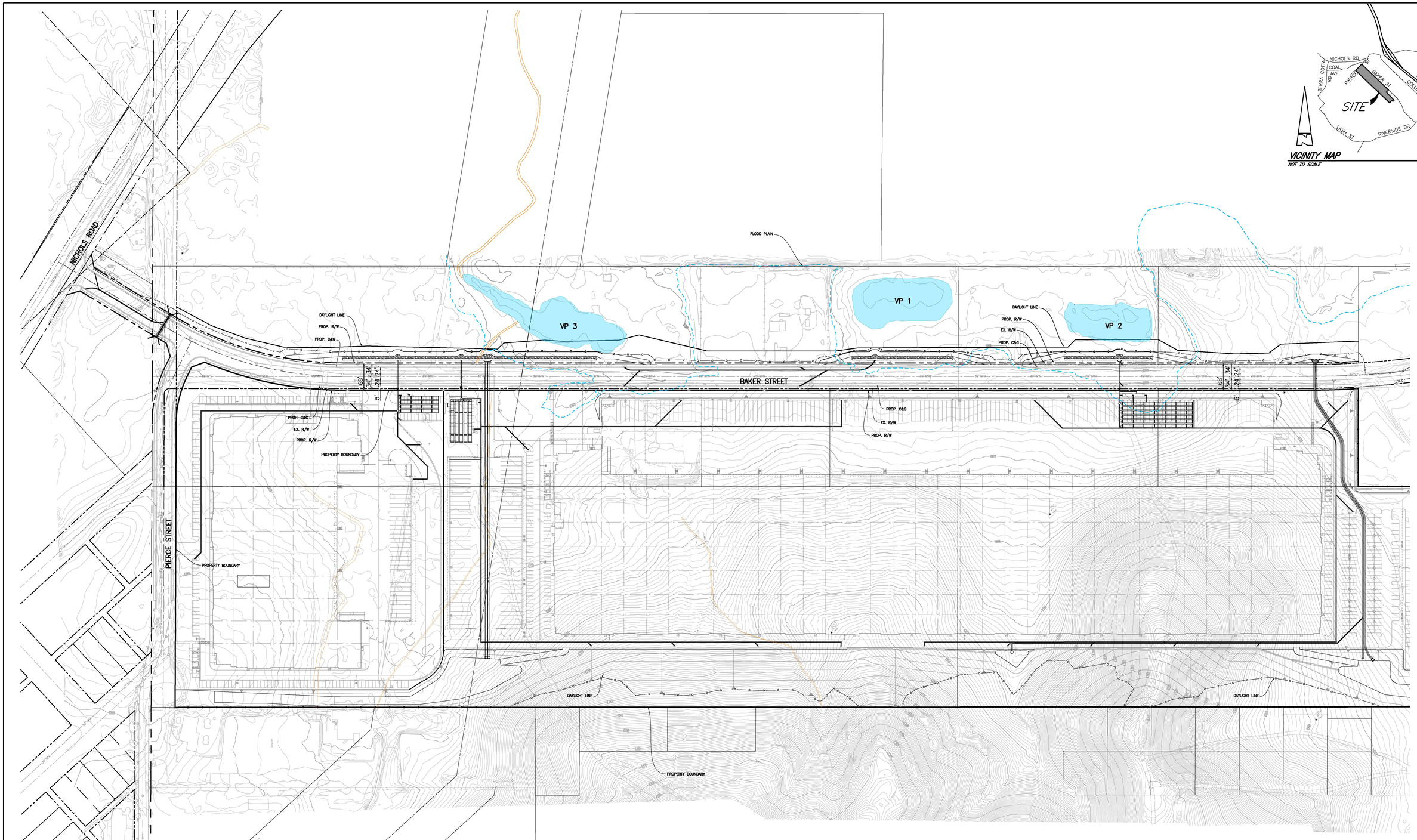
The ponding duration of Vernal Pool 2 is not expected to be adversely affected by the Project. Based on the hydrologic modeling shown in Table 3, the Project will not decrease the hydrology for Watershed B and therefore the Project will not reduce the duration of ponding for Vernal Pool 2. As previously discussed, the Project will endeavor to minimize dry weather nuisance flows and therefore will not increase the ponding duration of Vernal Pool 2 due to the release of non-seasonal flows.

The Project design will mimic the hydrology for the Vernal Pool 3 watershed very closely, with post-Project metrics of flow rates and volume demonstrating a one percent increase for all storm events modelled.

Appendix

A

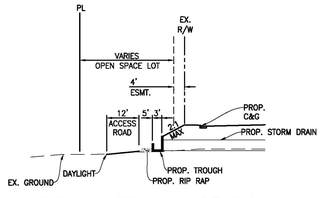
VERNAL POOL EXHIBIT



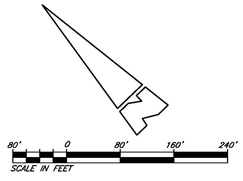
VICINITY MAP
NOT TO SCALE

LEGEND:

- FLOODPLAIN ZONE
- VERNAL POOLS
- CDFW NON-RIPARIAN STREAM
- PROPOSED R/W
- EXISTING R/W
- PROPOSED CL
- EXISTING CL
- SLOPE
- DAYLIGHT LINE
- PROPOSED SD
- PROPOSED RIP RAP



TYPICAL TROUGH SECTION
NTS



SCALE IN FEET

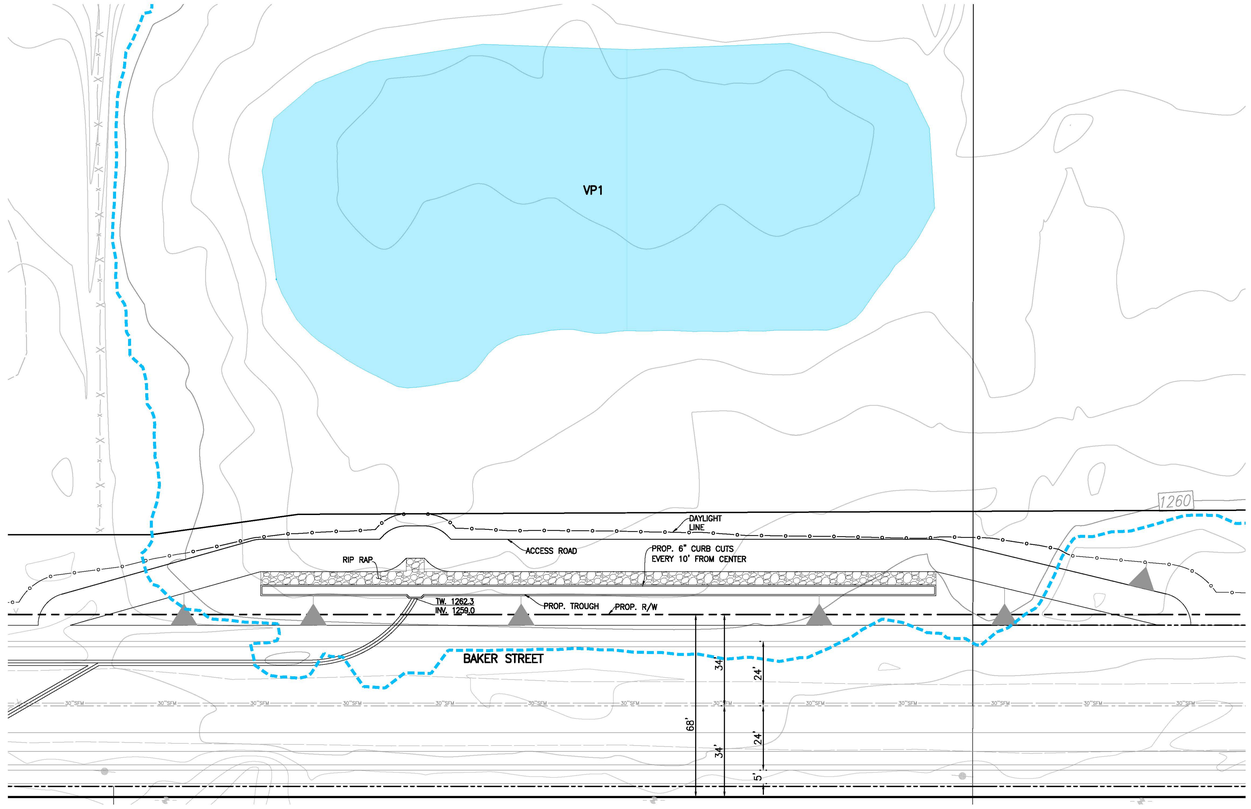
RCA VERNAL POOL EXHIBIT
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

PREPARED BY:

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
1880 COMPTON AVENUE, SUITE 100 CORONA, CA 92881-3370 951-734-3130

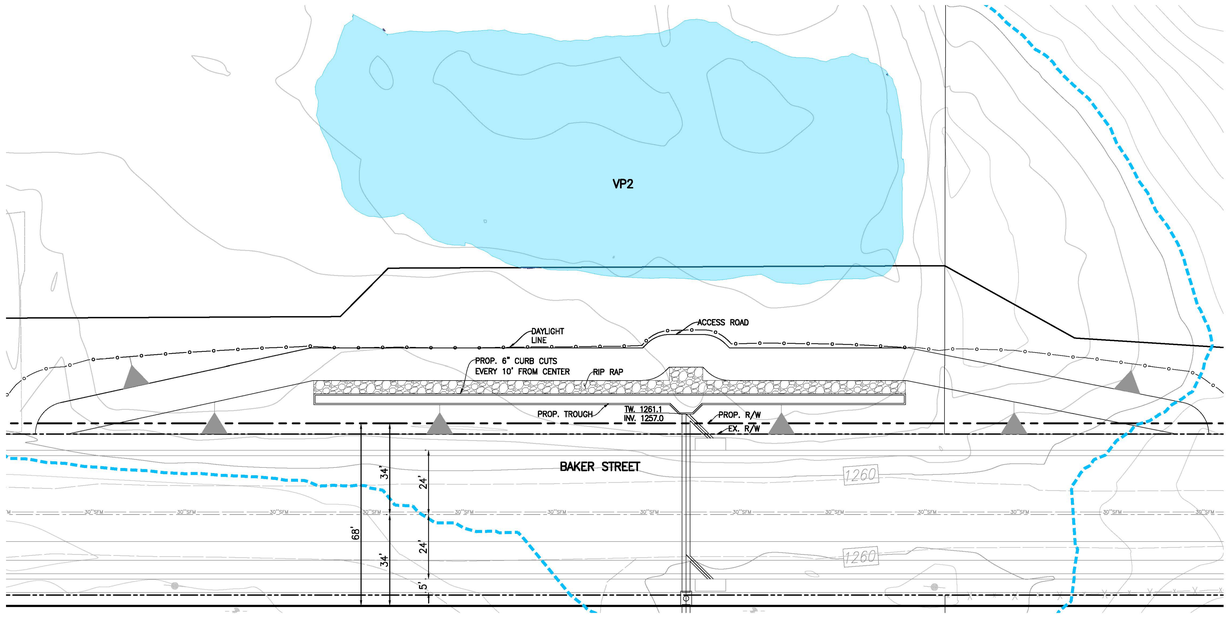
SHEET 1 OF 2 SHEET

R:\19\1994\PRELIM\Exh\1994 RCA Vernal Pool Exhibit.dwg 04/15/2025 07:42



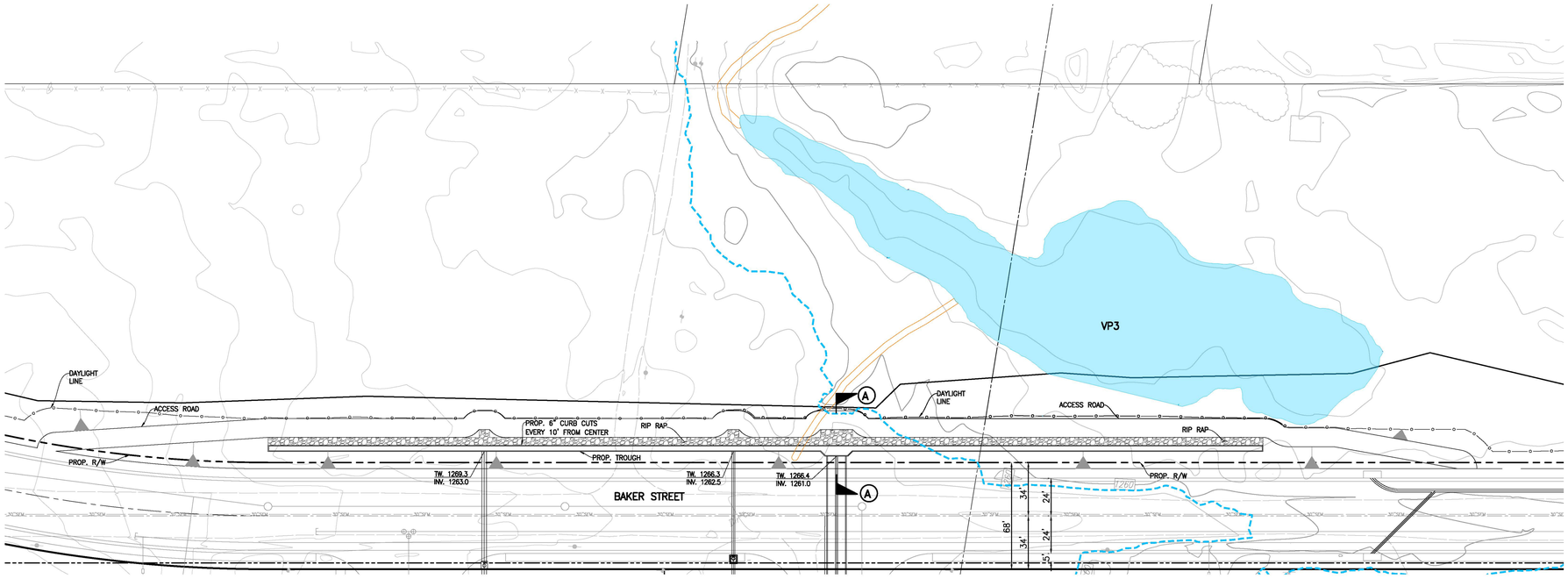
VERNAL POOL 1 OUTLET

SCALE 1" = 20'



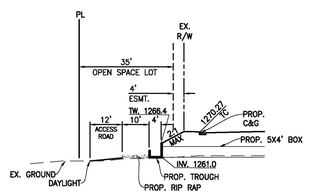
VERNAL POOL 2 OUTLET

SCALE 1" = 20'



VERNAL POOL 3 OUTLET

SCALE 1" = 30'



SECTION A–A

NTS

LEGEND:

- FLOODPLAIN ZONE
- VERNAL POOLS
- CDFW NON-RIPARIAN STREAM
- PROPOSED R/W
- EXISTING R/W
- PROPOSED CL
- EXISTING CL
- SLOPE
- DAYLIGHT LINE
- PROPOSED SD
- PROPOSED RIP RAP

20' 0 20' 40' 60'

SCALE IN FEET

30' 0 30' 60' 90'

SCALE IN FEET

RCA VERNAL POOL EXHIBIT
BAKER INDUSTRIAL
CITY OF LAKE ELSINORE

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SHEET 2 OF 2 SHEET

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Appendix

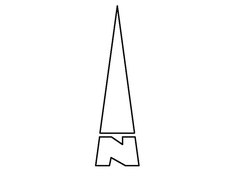
B

EXISTING CONDITION HYDROLOGY RATIONAL METHOD & KEY MAP



LEGEND

- MAJOR AREA BOUNDARY
- MINOR AREA BOUNDARY
- VERNAL POOLS
- FLOWLINE
- A / 6.98 — TRIBUTARY AREA DESIGNATION / TRIBUTARY AREA ACREAGE
- XX / ZZZ — ELEVATION @ NODE / NODAL POINT REFERENCE



VERNAL POOLS EXISTING CONDITION HYDROGOLY KEY MAP

BAKER INDUSTRIAL

COUNTY OF RIVERSIDE

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KIMLEY-HORN AND ASSOCIATES, INC.

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Appendix

C

EXISTING CONDITION HYDROLOGY UNIT HYDROGRAPH & KEY MAP



LEGEND

AREA BOUNDARY

FLOWLINE

A / 6.98 — TRIBUTARY AREA DESIGNATION / TRIBUTARY AREA ACREAGE

(XX) ZZZ — ELEVATION @ NODE / NODAL POINT REFERENCE

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200' 0 200' 400' 600'

SCALE IN FEET

VERNAL POOLS
EXISTING CONDITION
UNIT HYDROGRAPH MAP
FOR
BAKER INDUSTRIAL
COUNTY OF RIVERSIDE

HYD: PS
DRAFT: PS
CHECK: BB

KWC ENGINEERS

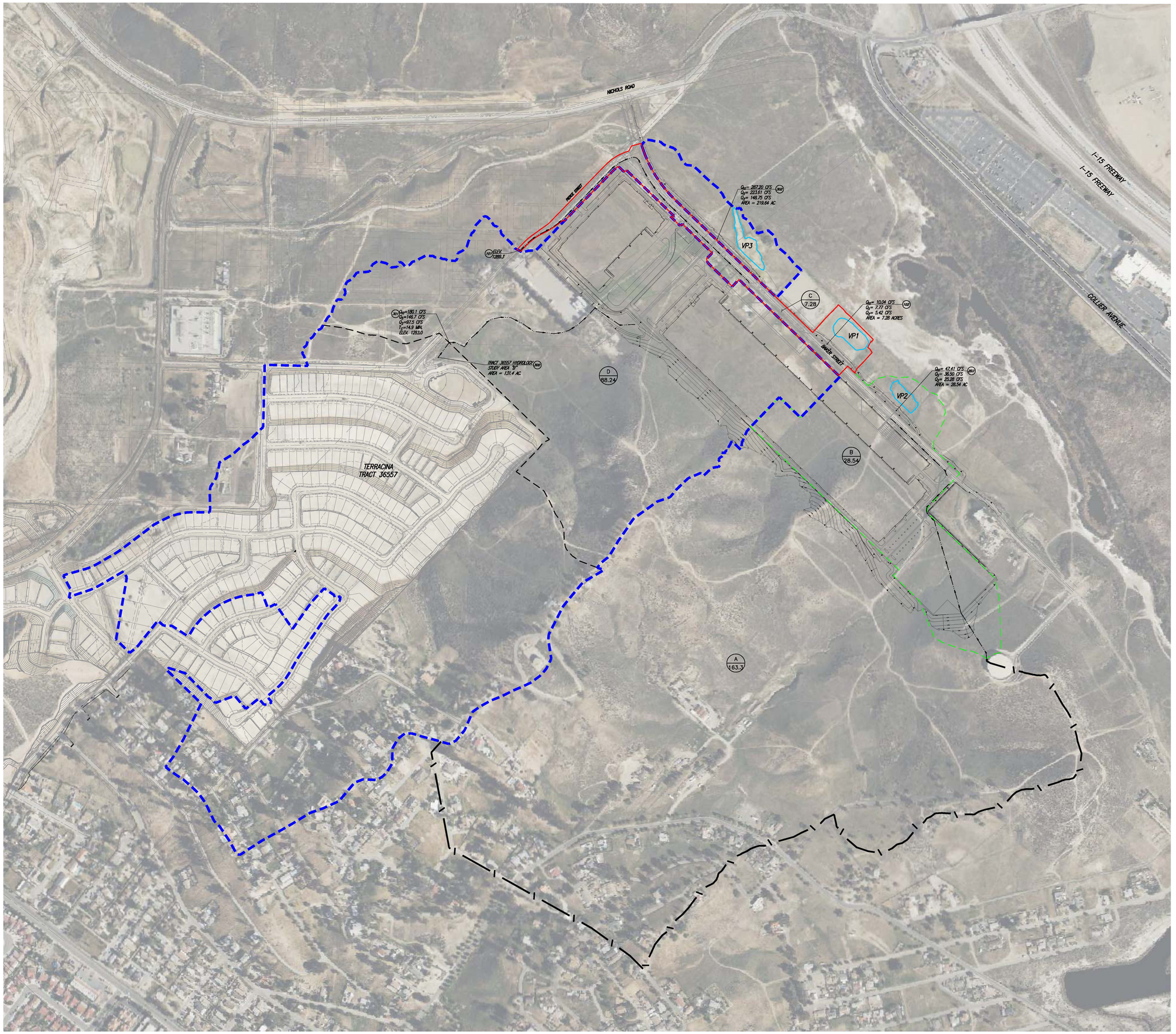
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Appendix

D

PROPOSED CONDITION HYDROLOGY RATIONAL METHOD & KEY MAP



LEGEND

- VP 1 MINOR AREA BOUNDARY
- VP 2 MINOR AREA BOUNDARY
- VP 3 MINOR AREA BOUNDARY
- MINOR AREA BOUNDARY
- VERNAL POOLS
- FLOWLINE
- A / 6.98 — TRIBUTARY AREA DESIGNATION / TRIBUTARY AREA ACREAGE
- XX / ZZZ — ELEVATION @ NODE / NODAL POINT REFERENCE

200' 0 200' 400' 600'
SCALE IN FEET

VERNAL POOLS PROPOSED CONDITION HYDROGOLY KEY MAP
FOR
BAKER INDUSTRIAL
COUNTY OF RIVERSIDE

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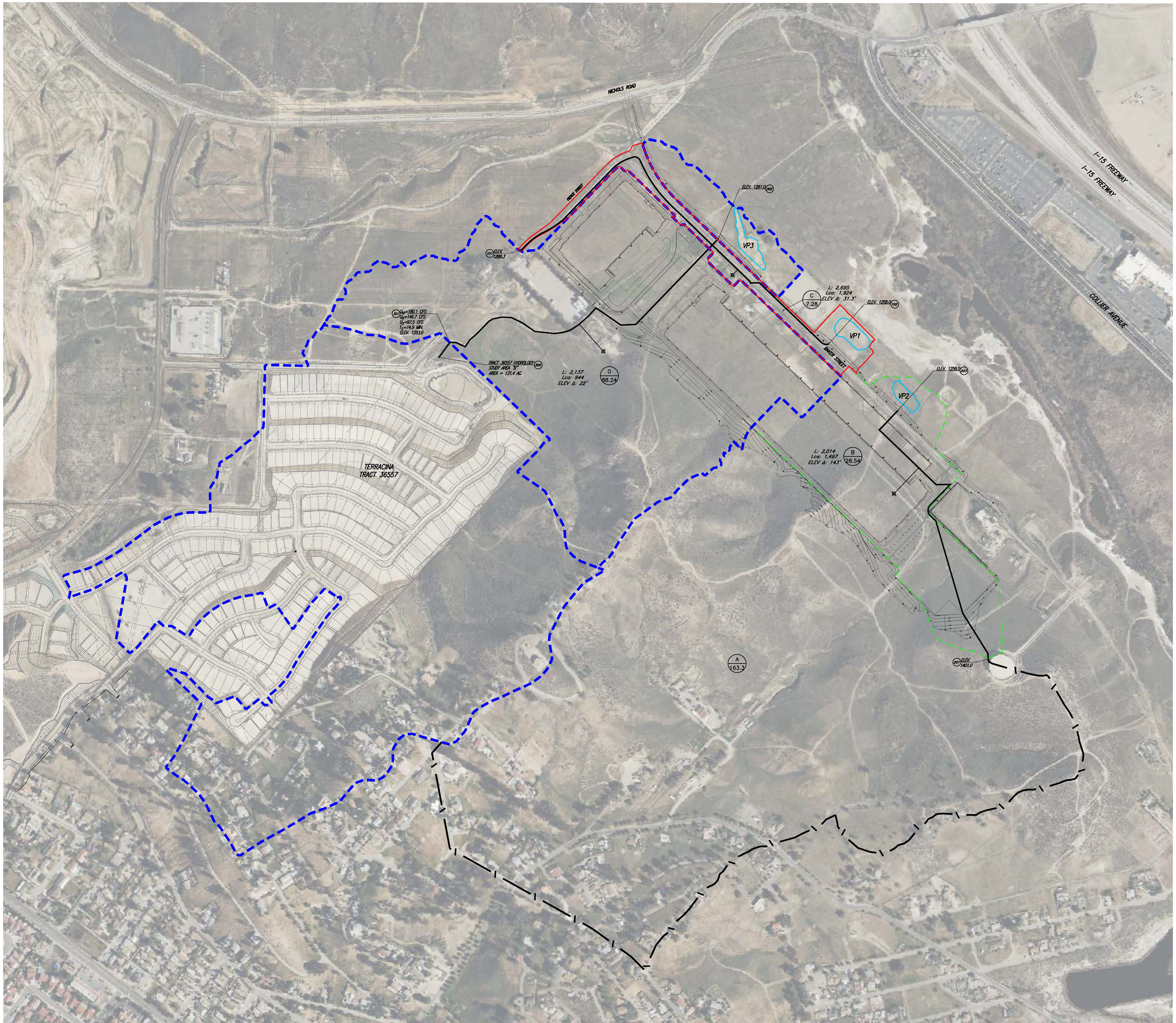
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R:\19128PA\PRELIM\EXHIBITS\VERNAL POOL PROJ\VERNAL POOL KEY MAP.dwg 11/15/2023 7:57 AM Plotted by: Peter Stoll

Appendix

E

PROPOSED CONDITION HYDROLOGY UNIT HYDROGRAPH & KEY MAP



LEGEND

- VP 1 MAJOR AREA BOUNDARY
- VP 2 MAJOR AREA BOUNDARY
- VP 3 MAJOR AREA BOUNDARY
- MINOR AREA BOUNDARY
- VERNAL POOLS
- FLOWLINE
- A / 6.98 — TRIBUTARY AREA DESIGNATION / TRIBUTARY AREA ACREAGE
- XX ZZZ — ELEVATION @ NODE / NODAL POINT REFERENCE

N

200' 0 200' 400' 600'

SCALE IN FEET

VERNAL POOLS
PROPOSED CONDITION
UNIT HYDROGRAPH MAP
FOR
BAKER INDUSTRIAL
COUNTY OF RIVERSIDE

HYD: PS
DRAFT: PS
CHECK: BB

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SHEET 1 of 1

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Appendix I

Joint Project Review Findings

Regional Conservation Authority
Western Riverside County

4080 Lemon St. 3rd Fl. Riverside, CA 92502
Mailing Address: P.O. Box 12008 Riverside, CA 92502-2208
951.787.7141 • wrc-rca.org

July 31, 2025

Damaris Abraham
City of Lake Elsinore
130 S. Main Street
Lake Elsinore, California 92530

Dear Damaris Abraham:

Please find the following JPR attached:

JPR 24-05-03-01. The Local Identifier is Baker Industrial Project. The JPR file attached includes the following:

- RCA JPR Findings
- Exhibit A, Regional
- Exhibit B, Vicinity Map with MSHCP Schematic Cores and Linkages
- Exhibit C, MSHCP 1994 Baseline Vegetation
- Exhibit D, Soil
- Exhibit E, Project Detail

Thank you,

Tricia Campbell
Deputy Director of Regional Conservation
Western Riverside County Regional Conservation Authority

cc: Karin Cleary-Rose
U.S. Fish and Wildlife Service
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

Carly Beck
California Dept. of Fish and Wildlife
3602 Inland Empire Blvd. #C220
Ontario, California 91764

RCA Joint Project Review (JPR) Findings

JPR: 24-05-03-01
Date: 07/31/25

Project Information

Permittee:	**City of Lake Elsinore**
Case Information:	**LEAP 2023-04/Baker Street Industrial Project**
Site Acreage[1]:	**136.0 acres permanent (65.8 on-site acres, 36.5 off-site acres, and 33.7 acres MSHCP Conservation), of which 89.4 acres are located within the Criteria Area (34.3 on-site acres, 23.2 off-site acres, and 32.0 acres MSHCP Conservation)[2]**
Portion of Site Proposed for MSHCP Conservation Area:	**33.7 acres[3]**

Criteria Consistency Review

Consistency Conclusion: The project is consistent with both the Criteria and Other Plan requirements with implementation of the measures presented in these Findings (including any within the project information provided to the Regional Conservation Authority by the Permittee for this JPR).

Applicable Core/Linkage: Proposed Core 1; Proposed Linkage 2
Area Plan: Elsinore

APN	Sub-Unit	Cell Group	Cell
378-020-014	SU2 – Alberhill	Independent	4157
378-020-015	SU3 – Elsinore	W	4166
378-020-016		W	4060
378-020-028			4067
378-020-029			4169
378-020-030			4266
378-020-031			
378-020-036			
378-020-037			
378-020-048			
378-020-012*			
378-020-038*			
378-020-039*			

1 Acreages within these Findings may vary due to rounding.
2 Joint Project Review (JPR) only occurs within MSHCP Criteria Cells. Any portion of the project that extends beyond the Criteria is not included as part of this JPR review nor these Findings.
3 The Project Applicant (Ecosystem Investment Partners [EIP]) placed the lands into conservation with the RCA prior to completion of the JPR. This is a unique circumstance but one that is allowed by the MSHCP.

APN	Sub-Unit	Cell Group	Cell
378-020-042*			
378-020-043*			
378-114-064*			
389-080-058			
389-080-013*			
389-110-010*			
389-952-017*			
378-020-024			
378-020-033			
378-020-034			
378-020-040			
378-020-041			
378-020-054			
Right-of-Way			

* Denotes APNs that are partially impacted. The City will require any future proposed development in these APNs to demonstrate MSHCP consistency and be processed through a separate joint project review.

Project Information

a. **Project Documentation**. JPR submittal materials provided by the Permittee included a JPR Application (July 15, 2025); City of Lake Elsinore MSHCP Consistency Findings (July 16, 2025); and a Western Riverside County MSHCP Consistency Analysis (*Analysis*) and a Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis (DBESP), both prepared by Glenn Lukos Associates, Inc. (GLA; May 14, 2025). Numerous Appendices to the *Analysis* were also provided as follows: Conceptual Grading Plan – Baker Industrial Project (Appendix A; KWC Engineers, August 14, 2023); Results of 2023 Dry Season Fairy Shrimp Surveys (Appendix B; GLA, August 9, 2024); Results of 2023/2024 Wet Season Fairy Shrimp Surveys (Appendix C; GLA, August 21, 2024); Results of 2020 Southwestern Willow Flycatcher and Least Bell's Vireo Surveys (Appendix D; GLA, September 8, 2020); Baker Industrial Hydrology Memorandum (Appendix E; KWC Engineers, May 8, 2025); Covered Roads Email Correspondences; USFWS and CDFW, April 17, 2025); and City of Lake Elsinore Covered Roads Letter (Appendix G; City of Lake Elsinore, May 13, 2025).

b. **Project Location**. The project is located in the City of Lake Elsinore, west of Interstate 15, north of Riverside Drive, and east of Lake Street (Exhibit A). It is located in the western portion of the MSHCP Area (Exhibit B).

c. **Project Description**. The proposed project includes the on-site construction of two industrial buildings and associated vehicle and trailer parking. The project also includes the following off-site improvements:

Baker Street Improvements: Proposed project improvements include widening Baker Street from 60 feet to 68 feet by constructing an additional four feet of street improvements on either side of the existing

right-of-way as required by the City's Collector roadway designation and as listed within the City's circulation element. Widening will occur along approximately 4,000 linear feet of Baker Street from the southeastern extent of the improvements to Pierce Street, of which approximately 2,900 linear feet is in Criteria Cell 4166 and 1,100 linear feet is outside of Criteria Cells. Although Baker Street is identified by the City's circulation element, Baker Street is not a Covered Road under the MSHCP. However, the Baker Street alignment is not within areas described for conservation for Cell 4166; therefore, the proposed improvements to Baker Street will not conflict with Reserve Assembly. However, the City and the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (hereafter collectively referred to as Wildlife Agencies) have agreed to the provided measure (refer to BAKER STREET OFF-SITE IMPROVEMENTS MEASURE below) to allow the project to be approved with the proposed Baker Street improvements. Attachment A of these Findings provides a letter from the City and email correspondence between the City and the Wildlife Agencies as part of the administrative record.

Additional Street Improvements: Proposed off-site improvements to Nichols Road, a Covered Road under the MSHCP, include widening, resurfacing, revised lane striping, and traffic control signal improvements, with all impacts occurring within 184-foot maximum allowable width. Proposed off-site improvements to Peirce Street include widening, installation of curb, gutter, and sidewalk; however, all off-site improvements to Peirce Street occur outside of the Criteria Cells; therefore, MSHCP Covered Road requirements do not apply. The project also proposes the installation of utilities in Terra Cotta Road within existing right-of-way and the installation of a force main in Collier Avenue from Nichols Road to Riverside Drive within the existing paved portion of Collier Avenue. Finally, the project will include utility improvements consisting of a Southern California Edison (SCE) line extension that will be installed underground from a lift station to be constructed at Baker Street and Nichols Road. The SCE line extension would go from the lift station along Nichols Road and then along Terra Cotta Road. All work for the line extension would be conducted within the existing right-of-way/pavement.

City Maintenance Areas: Proposed City maintenance areas north of Baker Street include raising Baker Street's road surface to improve drainage, including a landscaped slope along the northern edge along with construction of storm drain outlets to convey historical storm flows as well as three water spreading structures to mimic existing sheet flow conditions onto the adjacent Western Riverside County Regional Conservation Authority (RCA) Conserved Lands (MSHCP Conserved Additional Reserve Lands [ARL]) (refer to Section 6.1.2 below).

The approximate 136.0-acre proposed project is composed of 65.8 on-site acres, 36.5 off-site acres, and 33.7 acres of MSHCP Conserved ARL (Exhibit E). Of the 136.0-acre project, 89.4 acres are located within the MSHCP Criteria Area (specifically, Independent Cells 4157, 4166, 4169, 4266, and Cells 4060 and 4067 of Cell Group W), and as such, only the 89.4-acre proposed project within the Criteria Area is the subject of these JPR Findings (hereafter referred to as "project site"). The 89.4-acre project site consists of 34.3 on-site acres, 23.2 off-site acres, and 32.0 acres of MSHCP Conserved ARL. All impacts are permanent,

and no temporary impacts are proposed (Exhibit E). All construction staging will occur within the development footprint and/or the off-site improvements areas. The project will not require additional impacts outside of the development footprint for staging. All fuel modification/weed abatement zones will be contained within the permanent impact limits for both the on-site and off-site project components.

MSHCP baseline vegetation communities (1994) within the site consists of coastal sage scrub; developed or disturbed land; grassland; meadows and marshes; riparian scrub, woodland, forest; and woodland and forest (Exhibit C). Soil series within the project site include Altamont clay; Altamont cobbly clay; Arbuckle gravelly loam; Arbuckle loam; Cortina gravelly coarse sandy loam; Escondido fine sandy loam; Garretson gravelly very fine sandy loam; Garretson very fine sandy loam; Hanford coarse sandy loam; Lodo rocky loam; Placentia fine sandy loam; Ramona sandy loam; rough broken land; Traver loamy fine sand; Traver loamy fine sand, saline-alkali; and Willows silty clay, saline-alkali (Exhibit D).

The proposed project has already conserved approximately 33.7 acres of land to contribute to the MSHCP Reserve (MSHCP Conserved ARL). The MSHCP Conserved ARL are bordered by the Baker Street, Pierce Street and Nichols Road improvements (Exhibit E). The project applicant (Ecosystem Investment Partners [EIP]) placed the lands into conservation with the RCA prior to completion of the JPR. This is a unique circumstance but one that is allowed by the MSHCP. As described and further discussed in Sections 6.1.2, 6.1.3 and Section 6.3.2 below, the project is proposing several types of mitigation within with the MSHCP Conserved ARL, including San Diego ambrosia (*Ambrosia pumila*) translocation, vernal pool expansion/restoration, and mitigation for other MSHCP plants, including Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). If the cost of long-term management of these mitigation areas will exceed that which the RCA receives funding through the MSHCP, the project would provide an endowment to fund supplemental management.

RCA CONSERVED LANDS MITIGATION. The project is proposing several types of mitigation within with the Regional Conservation Authority (RCA) Conserved Lands, including San Diego ambrosia (*Ambrosia pumila*) translocation, vernal pool expansion/restoration, and mitigation for other Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) plants, including Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). If the cost of long-term management of these mitigation areas will exceed that which the RCA receives funding through the MSHCP, the project would provide an endowment to fund supplemental management.

BAKER STREET OFF-SITE IMPROVEMENTS MEASURE. Prior to the City of Lake Elsinore's (City) acceptance of the additional 8-feet of street improvements provided by the developer beyond the existing 60-foot right of way, the developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of 8 additional feet of right-of-way. An offer of dedication may be accepted by the City at a future date contingent upon the City's compliance with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) by completing either a Minor or Major Amendment for Covered Road coverage for Baker Street. The

City shall not accept offer of dedication until such time that the City has complied with future contingencies. Prior to grading permit issuance, the developer and the City should enter into an agreement, recorded against the subject property, outlining the City's conditions for accepting the Irrevocable Offer of Dedication. Once the specified contingencies have been met and dedication accepted and recorded, the agreement shall become null and void.

Relation to Reserve Assembly

a. **Reserve Assembly Summary**. As stated in Section 3.2.3 of the MSHCP, "Proposed Core 1 is located approximately in the east-central region of the Plan Area. This Core Area consists largely of private lands in the Alberhill area but also contains small pieces of Public/Quasi-Public Lands. The Core exists in two blocks, one east and one west of I-15. Connections are made from the Core to Proposed Linkage 1, Proposed Linkage 2 (Alberhill Creek), Proposed Linkage 3, and Existing Core C (Lake Mathews/Estelle Mountain). The Core provides Habitat for species and also provides for movement of species. Key populations of coastal California gnatcatcher, Munz's onion, many-stemmed dudleya, cactus wren, tricolored blackbird, and yellow warbler are supported in this Core Area. The Core likely provides for movement of common mammals such as bobcat. Since this Core is contiguous with Existing Core C (Lake Mathews/ Estelle Mountain) via an approximately 10,000-foot connection, the functional area of the Core is much greater than 7,470 acres reported in the table below. Because a portion of the Core is surrounded by city (Lake Elsinore) and community Development planned land uses, and since this Core may be affected by the proposed Hemet to Corona/Lake Elsinore CETAP Corridor, management of edge conditions in these areas will be needed to maintain high quality Habitat within the Core. 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]".

As stated in Section 3.2.3 of the MSHCP, "Proposed Linkage 2 is composed of wetland Habitat associated with Collier Marsh in the City of Lake Elsinore. It supports key populations of the following species: yellow-breasted chat, San Diego ambrosia, downy woodpecker, least Bell's vireo, yellow warbler and southwestern willow flycatcher. Maintenance of wetland functions and values and water quality of Collier Marsh is important for these species. As shown below, areas not affected by edge within this Linkage total approximately 70 acres of the total 160 acres occupied by this Linkage. Since this Linkage may be affected by edge, treatment and management of edge conditions will be necessary to ensure that land uses adjacent to the Linkage do not degrade water quality or inhibit floodplain processes. 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]."

The project site is located within Cell 4060 and 4067 of Cell Group W (three Cells), and independent Cells 4157,4166, 4169, and 4266.

Cell Group W

As stated in Section 3.3.3 of the MSHCP, "Conservation within this Cell Group will contribute to assembly of Proposed Core 1. Conservation within this Cell Group will focus on riparian scrub, woodland and forest habitat associated with Alberhill Creek and adjacent coastal sage scrub and grassland habitat. Areas conserved within this Cell Group will be connected to coastal sage scrub, riparian scrub, woodland and forest habitat proposed for conservation in Cell 3964 to the north, to coastal sage scrub habitat proposed for conservation in Cell 4057 to the west, and to grassland, riparian scrub, woodland and forest habitat proposed for conservation in Cell 4166 to the south. Conservation within this Cell Group will range from 80% to 90% of the Cell Group focusing in the northwestern portion of the Cell Group."

The only portion of the proposed project within Cell Group W is the proposed off-site improvements to Nichols Road, a Covered Road under the MSHCP. Covered Roads were established at the time the MSHCP was created and are therefore not required to be evaluated relative Reserve Assembly requirements. Furthermore, all impacts occur entirely within the Covered Road maximum allowable width of 184 feet for Nichols Road. Therefore, the proposed off-site development of the proposed project site would not impede assembly of Proposed Core 1. Additionally, while there is MSHCP Conserved ARL occurring within Cell Group W associated with this project, it should be noted that this conservation accomplishment does not replace what is required in the Cell.

Cell 4157

As stated in Section 3.3.3 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Core 1. Conservation within this Cell will focus on coastal sage scrub, chaparral and grassland habitat. Areas conserved within this Cell will be connected to coastal sage scrub and chaparral habitat proposed for conservation in Cell 4156 to the west and to chaparral and grassland habitat proposed for conservation in Cell 4057 to the north. Conservation within this Cell will range from 45% to 55% of the Cell focusing in the western half of the Cell."

The portion of the project within Cell 4157 includes off-site improvement to Nichols Road and utility installations within the developed existing right-of-way of Terra Cotta Road. These off-site improvements are located in the eastern portion of the Cell, which is not described for conservation, is within the existing developed Nichols Road and Terra Cotta Road right-of-way and would not functionally contribute to Proposed Core 1. Additionally, Nichols Road is a Covered Road under the MSHCP. Covered Roads were established at the time the MSHCP was created and are therefore not required to be evaluated relative Reserve Assembly requirements. Furthermore, all impacts occur entirely within the Covered Road

maximum allowable width of 184 feet for Nichols Road. Therefore, the proposed off-site development would not impede assembly of Proposed Core 1.

Cell 4166

As stated in Section 3.3.3 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Linkage 2. Conservation within this Cell will focus on meadow, marsh, riparian scrub, woodland and forest habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to riparian scrub, woodland, forest and grassland habitat proposed for conservation in Cell Group W to the north and to meadow, marsh and grassland habitat proposed for conservation in Cell 4169 to the east. Conservation within this Cell will range from 15% to 25% of the Cell focusing in the northeastern portion of the Cell."

Cell 4166 totals 161.8 acres. Using the mid-range (20%), approximately 32.4 acres are described for conservation within this approximate 161.8-acre Cell. To date, 62.6 acres have been developed, approved for development, or proposed for development in this Cell, which includes the proposed project acreage and 4.2 acres of covered roads acreage. There are no Public-Quasi Public Lands within this Cell. There are 3.7 acres in this Cell that have already been conserved for MSHCP Conserved ARL, in addition to 30.1 acres that the project applicant (Ecosystem Investment Partners [EIP]) placed into conservation with the RCA prior to completion of the JPR. This is a unique circumstance but one that is allowed by the MSHCP. Therefore, there is a total of 33.8 acres that have already been conserved for MSHCP Conserved ARL within this Cell. There are 65.4 acres of undeveloped acres available within the Cell, of which 57.2 acres are potentially available within areas described for conservation and that would functionally contribute to Proposed Linkage 2. In summary, with 33.8 acres conserved to date and 57.2 acre of undeveloped acres available for conservation that could also functionally contribute to Proposed Linkage 2 (totaling 91.0 acres), Cell 4166 could achieve the mid-range goal of 32.4 acres and high-range goal of 40.5 acres.

Cell 4169

As stated in Section 3.3.3 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Linkage 2. Conservation within this Cell will focus on meadow and marsh habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to meadow and marsh habitat proposed for conservation in Cell 4166 to the west and to meadow, marsh and grassland habitat proposed for conservation in Cell 4266 to the south. Conservation within this Cell will range from 10% to 20% of the Cell focusing in the southwestern portion of the Cell.'

The only portion of the proposed project within Cell 4169 and Cell 4266, both Independent Cells, is the proposed off-site improvements to Collier Avenue, a Covered Road under the MSHCP. Covered Roads were established at the time the MSHCP was created and are therefore not required to be evaluated relative Reserve Assembly requirements. Furthermore, all impacts occur entirely within the Covered Road

maximum allowable width of 118 feet for Collier Avenue. Therefore, the proposed off-site development would not impede assembly of Proposed Linkage 2.

Cell 4266

As stated in Section 3.3.3 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Linkage 2. Conservation within this Cell will focus on meadow, marsh, riparian scrub, woodland and forest habitat along Alberhill Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to meadow, marsh and grassland habitat proposed for conservation in Cell 4169 to the north. Conservation within this Cell will range from 30% to 40% of the Cell focusing in the western portion of the Cell."

The only portion of the proposed project within Cell 4266 is the proposed off-site improvements to Collier Avenue, a Covered Road under the MSHCP. Covered Roads were established at the time the MSHCP was created and are therefore not required to be evaluated relative Reserve Assembly requirements. Furthermore, all impacts occur entirely within the Covered Road maximum allowable width of 118 feet for Collier Avenue. Therefore, the proposed off-site development would not impede assembly of Proposed Linkage 2.

b. **Rough Step.** The project is within Rough Step Unit 8 which tracks four vegetation types: coastal sage scrub; grasslands; riparian scrub, woodland, forest; and Riversidean alluvial fan sage scrub.

MSHCP baseline vegetation communities (1994) within the project site for those tracked by this Unit consist of coastal sage scrub; grassland; and riparian scrub, woodland, forest (Exhibit C). At the time of these Findings, grasslands were out of Rough Step. The grassland vegetation category has been out of Rough Step in Unit 8 since inception of the MSHCP due to pre-MSHCP-approved developments and associated project mitigation that resulted in lands coming into the MSHCP Reserve under the PQP classification that do not count toward Rough Step gains. However, there are 169 acres of pending grassland conservation in this Rough Step Unit. The timing of conveyance of development-related conservation is unknown as it is based on the project proponents' timeframes.

The Rough Step Unit 8 development allowance may have changed by the time this project submits for a grading permit. As such, the RCA provides the following required Measure to ensure the City does not exceed Rough Step allowances:

ROUGH STEP MEASURE. In accordance with MSHCP Volume I, Section 6.7, it is the Permittees responsibility that [*i*]*f the rough step rule is not met during any analysis period* (performed annually by the Regional Conservation Authority [RCA]), *the Permittees must conserve appropriate lands supporting a specified vegetation community within the analysis unit to bring the Plan back into the parameters of the rule prior to authorizing additional loss of the vegetation community for which the rule was not achieved.* The Permittee is encouraged to consult with the RCA on current rough step allowances prior to working

with project applicants developing grading plans. The Permittee must not cause additional loss of any rough step vegetation that is out of balance. Prior to issuance of a grading permit, the Permittee will confirm with the RCA that the Project will not impact out-of-balance Rough Step vegetation in the applicable Rough Step unit.

Other Plan Requirements (MSHCP Volume I)

Section 6.1.2 – Was Riparian/Riverine/Vernal Pool Mapping or Information Provided?

Yes. Refer to Section 6.1.2 discussion below.

Section 6.1.3 – Was Narrow Endemic Plant Species Survey Information Provided?

Yes. Refer to Section 6.1.3 discussion below.

Section 6.3.2 – Was Additional Survey Information Provided?

Yes. Refer to Section 6.3.2 discussion below.

Section 6.1.4 – Was Information Pertaining to Urban/Wildland Interface Guidelines Provided?

Yes. The project site is located directly adjacent to existing MSHCP conservation areas. Therefore, Section 6.1.4 measures are applicable.

Comments on Other Plan Requirements:

a. **Section 6.1.2.** The following discusses each requirement under this policy.

Riparian/Riverine[4]. According to the *Analysis* and DBESP, the project site contains approximately 3.03 acres of MSHCP riparian/riverine areas, including 2.36 acres of riparian habitats associated with Alberhill Creek and 0.67 acre associated with six drainage features (Drainage A through F). Of the 3.03 acres of MSHCP riparian/riverine areas, approximately 2.58 acres of riparian/riverine areas are inside Criteria Cells and 0.45 acre of riverine areas are outside Criteria Cells.

According to the *Analysis* and DBESP, the project will permanently impact 0.50-acre of riparian/riverine areas (non-riparian drainage features), specifically 0.05-acre within Criteria Cells and 0.45-acre outside of Criteria Cells. Additionally, approximately 0.06 acre of riparian habitat consists of overhanging willow limbs within the existing right-of-way of Nichols Road. The project will not remove the overhanging riparian vegetation. Improvements to Nichols Road consisting of re-surfacing the existing roadway will not require the trimming of the overhanging willow limbs. The remaining 2.47 acres of riparian/riverine areas are within the MSHCP Conserved ARL and being avoided.

[4] Due to the small impact and mitigation acreages, acreages are presented to the hundredths place to avoid rounding errors.

Permanent impacts to 0.50 acres of riparian/riverine resources will be offset by the purchase of credits at a 3:1 ratio (specifically, a minimum of 1:1 re-establishment credit and 2:1 re-establishment and/or rehabilitation credits) from Riverpark Mitigation Bank. Should Riverpark Mitigation Bank become unavailable in the future, an alternative mitigation strategy through another mitigation bank within the MSHCP Plan Boundary shall be reviewed and approved by the Regional Conservation Authority (RCA) and the Wildlife Agencies [United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)] prior to issuance of a grading permit.

RIPARIAN/RIVERINE MITIGATION MEASURE. Permanent impacts to 0.50 acres of riparian/riverine resources will be offset by the purchase of credits at a 3:1 ratio (specifically, a minimum of 1:1 re-establishment credit and 2:1 re-establishment and/or rehabilitation credits) from Riverpark Mitigation Bank. Should Riverpark Mitigation Bank become unavailable in the future, an alternative mitigation strategy through another mitigation bank within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) boundary shall be reviewed and approved by the Regional Conservation Authority (RCA) and the Wildlife Agencies [United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)] prior to issuance of a grading permit.

Fairy Shrimp. According to the *Analysis* and DBESP, the project site contains four seasonally ponding features with the potential to support listed fairy shrimp, all of which occur within the Criteria Cells. Specifically, three vernal pools (Vernal Pool 1, 2, and 3) that either overlap with the off-site improvements and City Maintenance Area along the northeastern side of Baker Street or are immediately adjacent or within the MSHCP Conserved ARL, and one stock pond feature (Pool 4) within the on-site project were determined to support suitable fairy shrimp habitat; therefore, focused surveys were conducted. Dry season surveys were completed in 2023, and wet season surveys were completed during the 2023-2024 rainfall season. Cysts belonging to the genus *Branchinecta* were isolated from soil samples in Pools 1, 2 and 3, but not from Pool 4. Adult versatile fairy shrimp (*Branchinecta lindahli*) were reared from cultures in Pools 1, 2 and 3. The versatile fairy shrimp was detected in Pools 1, 2 and 3, but not in Pool 4. These results are consistent with the findings of the preceding dry season surveys. No listed fairy shrimp species were detected. The western spadefoot (*Spea hammondii*) was detected in Pools 1, 2 and 3 during the 2023-2024 wet season fairy shrimp surveys and is further discussed below.

Vernal Pools[5]. According to the *Analysis* and DBESP, the project site contains three vernal pools (Vernal Pool 1, 2, and 3), which total 1.72 acres, all of which occur within the Criteria Cells on the northeastern side of Baker Street. These three vernal pools pond seasonally and exhibit the three wetland parameters to meet the definition of MSHCP Vernal Pools. Vernal Pools 1 and 2 are in proximity to, but do not directly abut, Alberhill Creek. Vernal Pool 3 is connected to Drainage A, which connects with Alberhill Creek (refer to *Analysis* Exhibit 8 which is included as Attachment B to these Findings for ease in reference). Refer to the

[5] Due to the small impacts and mitigation acreages, acreages are presented to the hundredths place to avoid rounding errors.

Analysis, DBESP and Hydrology Memorandum (*Analysis* and DBESP Appendix E) for additional details on existing conditions of each of the Vernal Pools, including depths and inundation periods.

Direct Impacts

The project will permanently impact 0.17-acre of vernal pools, specifically 0.01-acre associated with Vernal Pool 2 and 0.16-acre associated with Vernal Pool 3, as a result of disturbance along the southern edges of the vernal pools to construct facilities within the City Maintenance Area, including the proposed drainage facilities and the maintenance access road. There will be no direct impacts to Vernal Pool 1, as the limits of the City Maintenance Area will be set back approximately 75 feet from the edge of the ponding basin; however, potential indirect impacts to Vernal Pool 1 related to hydrology were addressed and are further summarized under *Indirect Impacts* below.

Permanent impacts to Vernal Pool 2 and Vernal Pool 3 will be mitigated at a 3:1 replacement ratio (total of 0.51 acre) by expanding Vernal Pool 2 by 0.03 acre along the northern edge of the pool and Vernal Pool 3 will be expanded by 0.48 acre along the northern and western edges. All vernal pools will be protected within the MSHCP Conserved ARL. A Habitat Mitigation and Monitoring Plan (HMMP) will be prepared to address the vernal pool mitigation. The HMMP will, at a minimum, include details about the type of mitigation, acreages, when the mitigation would be implemented, plant palettes, site preparation, weeding plan, success criteria, monitoring plan (e.g., years/duration, frequency, etc.), reporting, the proposed management entity, contingency measures in the event the mitigation is not successful, and long-term management requirements, including funding. The monitoring will include hydrologic monitoring to confirm that the recontoured areas inundate sufficiently to support seasonal ponding/wetland conditions reflective of those present in the existing condition. The type of contingency measures would depend on which success criteria have not been met. Additional details will be provided in the HMMP. The HMMP will be provided to the RCA, the Wildlife Agencies, and the California Natural Resources Agency (CNRA) for review and approval prior to project implementation, including any ground disturbance.

Indirect Impacts

A Hydrology Memorandum was prepared (*Analysis* and DBESP, Appendix F) to quantify the pre-project and post-project discharge supporting the vernal pools and summarizes the data and results for a 2-, 5- and 10-year storm event for each watershed and associated vernal pool.

> *Vernal Pool 1:* According to the supporting documentation, the project will not decrease the hydrology to Vernal Pool 1and therefore the project will not reduce the hydroperiod for Vernal Pool 1. Furthermore, the project will not release dry weather nuisance flows from the site. As such, the project will not release water outside of that which would be generated by rainfall events and therefore will not increase the Vernal Pool 1 hydroperiod that could otherwise be caused by the release of non-seasonal flows. Additionally, water retained in the project's BMP structures will be released within 24 hours following storm events, such that the project will not increase the duration of sheet flows entering Vernal Pool 1.

Vernal Pool 2: According to the supporting documentation, the project will not decrease the hydrology for Watershed B and therefore the project will not reduce the duration of ponding for Vernal Pool 2. Furthermore, the project will not release dry weather nuisance flows from the site. As such, the project will not release water outside of that which would be generated by rainfall events and therefore will not increase the ponding duration of Vernal Pool 2 that could otherwise be caused by the release of non-seasonal flows. Additionally, water retained in the project's BMP structures will be released within 24 hours following storm events, such that the project will not increase the duration of sheet flows entering Vernal Pool 2.

Vernal Pool 3: According to the supporting documentation, the project design will mimic the hydrology for the Vernal Pool 3 watershed very closely, with post-project metrics of flow rates and volume demonstrating a 1-percent increase for all storm events modelled. Therefore, the post-project hydrology would not adversely extend the vernal pool hydroperiod. Additionally, similar to Vernal Pool 1 and Vernal Pool 2, the project will not release dry weather nuisance flows to Vernal Pool 3.

In summary and according to the *Analysis* and DBESP, the only factor that the project will alter is the volume of rainfall theoretically delivered to the vernal pools via the modified watersheds, but for Vernal Pools 2 and 3, the volumes of the modelled events exceed the maximum capacity estimated for the pools, effectively spilling over the lateral limits of the pools and continuing downstream, so the increases modelled for those events post-project should have no effect on the maximum depths of the pools, nor on the total duration of inundation. Any significant increases in duration would have to be the result of non-seasonal release of dry weather flows, which would simulate additional rainfall events. However, as the proposed project will retain all its non-seasonal dry weather flows, the project will not release water to the vernal pools outside of the rainfall season. As such, the project would not extend the ponding duration of the vernal pools beyond what is influenced by the occurrence of rainfall events.

The project will implement Best Management Practices (BMPs) to prevent the degradation of water entering the vernal pools as further detailed in the VERNAL POOL MITIGATION INDIRECT IMPACT AVOIDANCE MEASURE below.

Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. According to the *Analysis*, the three vernal pools, located within MSHCP Conserved ARL, support western spadefoot, which is a species associated with Riparian/Riverine areas and vernal pool policies presented in Section 6.1.2. Because the project will impact portions of Vernal Pool 2 and Vernal Pool 3, and construction activities will occur in proximity to Vernal Pool 1, there is a potential for western spadefoot individuals to be affected during construction. As the vernal pools are located in MSHCP Conserved ARL adjacent to the project site, the project will implement avoidance and minimization measures as further detailed in the WESTERN SPADEFOOT AVOIDANCE AND MINIMIZATION MEASURE below. This measure overlaps with minimization measures that will apply to the vernal pools themselves, which will be addressed in the HMMP

to be reviewed and approved by the RCA, USFWS, CDFW and CNRA. The disturbance of the site will not commence until the HMMP has been approved by all parties.

HABITAT MONITORING AND MITIGATION PLAN MEASURE. A Habitat Monitoring and Mitigation Plan (HMMP) will be prepared and submitted to the Western Riverside County Regional Conservation Authority (RCA), Wildlife Agencies [United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)], and California Natural Resources Agency (CNRA) for review and approval prior to project implementation, including any ground disturbance. An endowment to fund long-term management requirements, to be determined during finalization of the HMMP, that are above and beyond the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) land management requirements, will be provided to the RCA or a qualified RCA-approved land management entity (such as a Resource Conservation District), as to be determined during the HMMP approval process.

VERNAL POOL MITIGATION INDIRECT IMPACT AVOIDANCE MEASURE. The project will implement Best Management Practices (BMPs) to prevent the degradation of water entering the vernal pools. The water quality BMPs will ensure the treatment of runoff within the Industrial Facility and from the portions Baker Street, Pierce Street and Nichols Road that will drain towards the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conserved Additional Reserve Lands (ARL). The project will construct a Modular Subsurface Flow Wetland System (MSFWS) used for biofiltration of stormwater runoff including dry weather flows and other contaminated water sources. During construction, the project will implement erosion and sedimentation BMPs, to prevent excess sediments from entering the vernal pools. In addition, the project will contain all dry weather nuisance flows such that the non-seasonal water sources generated within the project site will not enter the vernal pools. This will ensure that the water quality and chemistry of the vernal pools are not adversely affected by the project.

WESTERN SPADEFOOT AVOIDANCE AND MINIMIZATION MEASURE. To avoid impacts to western spadefoot, the following measures shall be implemented:

***Timing of disturbance* – No disturbance work, including project grading and mitigation activities (vernal pool expansion), will occur within western spadefoot breeding habitat associated with Vernal Pools 2 and 3 or upland habitat within 1,500 feet of vernal pools until those areas have been exclusion fenced and cleared of western spadefoot during the appropriate survey period.**

***Construction fencing* – Construction fencing, not to be confused with exclusion fencing, will be installed along all project components to demarcate the project boundaries. No disturbance will occur outside of the construction fencing. The fencing will be installed prior to the start of any disturbance, to be verified (including photographed) by the monitoring biologist and will remain in place until construction has**

been completed. Fencing shall include small animal jump outs in the fencing (e.g., gradually sloped, smooth, flat-topped mounds of dirt on the upland side of the fence with small slits placed in the fencing at the top of the mounds). Placement of cover, ideally weathered wood, shall be placed along the inside of the fencing approximately every 50 feet. This cover shall be checked during clearance and monitoring surveys. All animals encountered under the cover shall be placed outside the fencing, with the western spadefoots being moved to the pools as described below. In general, the fencing will be checked periodically and replaced as necessary if it becomes worn or damaged.

Exclusionary Silt Fencing **– Exclusionary fencing will be installed around areas that will be disturbed and include the entirety of the Industrial (On-site), Baker Street (Off-site), City Maintenance Area (Off-site) areas as and other Additional Street Improvements (Off-site) areas within 1,500 feet of the vernal pools [refer to *Analysis* Exhibit 15 – Western Spadefoot – Fencing and Exclusion Survey Areas]. Exhibit 15 identifies three distinct areas that will be surrounded by exclusionary fencing, including the entirety of the on-site portion of the Project, the portion of the Baker Street improvements not within the existing road right-of-way and the City Maintenance Area, and a small area adjacent to Nichols Road and Pierce Street. Fencing will be installed and maintained prior to the onset of winter rain events. The purpose of the exclusionary fencing will be to enclose clearance areas for western spadefoot relocation prior to the onset of site disturbance. As with the construction fencing, the exclusionary fencing will be installed prior to the start of any disturbance, to be verified (including photographed) by the monitoring biologist and will remain in place until construction has been completed. In general, the fencing will be checked periodically and replaced as necessary if it becomes worn or damaged. After the clearance surveys are completed (as described below), exclusionary fencing will remain along the disturbance boundary with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conserved Additional Reserve Lands (ARL) until the conclusion of construction activities, to prevent any spadefoots from returning into the development footprint following the breeding season. It is acknowledged that construction activities might not immediately follow the breeding season in which the clearance surveys are conducted. If so, exclusionary fencing will remain along the boundary between the MSHCP Conserved ARL and the development footprint until construction activities are concluded, even if multiple breeding seasons separate the clearance surveys from the start of the construction activities. The exclusionary fencing will be monitored at least weekly during each breeding season to move any spadefoots into the MSHCP Conserved ARL that might be trapped on the opposite side of the fence. This monitoring will continue annually until construction has been completed, unless the monitoring can be terminated (or suspended) with the concurrence of the RCA, USFWS, CDFW and CNRA.**

Hydrology monitoring **– If construction activities are intended to occur within the Baker Street alignment or the City Maintenance Area during the western spadefoot breeding season, a biologist will monitor the hydrology of the vernal pools after the first measurable rains to determine the earliest timeframe that western spadefoot individuals could initiate breeding.**

Western spadefoot clearance prior to pool inundation **– After installation of construction fencing and exclusionary fencing, qualified biologists will perform clearance surveys and relocations during the first four large (0.25-inch or greater) rain events of the winter. The clearance surveys will be conducted for each of the three areas described above. In addition, although the existing Baker Street and Pierce Street will not be enclosed by fencing since they have existing rights-of-way, the surfaces of the dirt roads will be surveyed along with the three exclusion zones, and any spadefoots detected on the road surfaces will be captured and relocated. These are nocturnal surveys and should be performed during each of the four rain events or the next night following these rain events. Clearance surveys will involve walking 30-meter or less pedestrian transects within the exclusion fenced area, while looking for western spadefoot eyeshine and individuals. The biologist will perform 360-degree scans at least every 100 meters to look for eyeshine behind them. Dense vegetation may require that transects be more closely spaced such that 100% visual coverage is provided. Once a western spadefoot is detected, the biologist will go to the location, GPS the location, collect basic data (e.g., sex, size, behavior [e.g., emerging, walking/direction, foraging], etc.) as feasible, quickly scan 360 degrees to see if there are other individuals emerging nearby, collect the individual in a bucket for relocation, then continue along the transect route. Biologists will employ safe handling techniques to prevent directly harming individual spadefoots and prevent introducing pathogens to individual spadefoots. This will include wearing a clean pair of disposable gloves when handling each spadefoot collected and keeping the collected spadefoots in a sterilized bucket until they are transferred to the vernal pools. Additional methods may be employed, as applicable, according to The Declining Amphibian Task Force Fieldwork Code of Practice. After completion of the clearance survey, all collected western spadefoots will be evenly distributed around Vernal Pools 1 through 3. If the pools are inundated, then western spadefoots should be placed at the water's edge of the pools. If the pools have yet to inundate, then western spadefoots should be placed within the entrance of rodent burrows above, but within 10 meters, of the high-water line of the pools. Released individuals will be monitored long enough to verify that they are moving and apparently healthy.**

Western spadefoot monitoring during construction **(and during the interim between clearance survey areas and construction) – After the clearance surveys are complete and until construction activities are concluded, during the western spadefoot breeding season(s) the biologist will monitor the exclusionary fencing separating the MSHCP Conserved ARL from the development footprint. The biologist will inspect the side of the exclusion fencing facing the construction site at least once per week to search for western spadefoot individuals that might be trapped inside of the exclusionary fencing. If individuals are detected inside of the fence, then they will be relocated to the opposite side of the fencing and placed just outside of the inundation limits of the pools. The biologist will inspect the surface of the pools to be impacted within disturbance limits, i.e., in the area separated from the avoided pools by the exclusion fence as well as within any deep cracks that have formed in substrate. If spadefoots are detected within cracks, the biologist will carefully attempt to remove spadefoots by hand and relocate them to the conserved land side of the fencing demarcating the disturbance limits. If multiple breeding seasons will**

separate the clearance surveys from the start of construction activities, then the exclusionary fencing will remain in place and the monitoring will be performed for each breeding season until the start of construction, unless monitoring can be terminated (or suspended) with the concurrence of the RCA, USFWS, CDFW and CNRA.

***Monitoring during initial disturbance* – A biologist will monitor the initial disturbance to Vernal Pools 2 and 3 for any spadefoot metamorphs that might escape soil cracks while equipment initially disturbs the soil. The initial disturbance of the pools will be conducted using small equipment such as backhoe. The disturbance will be directed by the monitoring biologist to commence slowly from the outer edge of the pools towards the disturbance limits. If the biologist observes a metamorph escaping a crack, then the biologist will halt the equipment and attempt to relocate the toad to the opposite side of the silt fencing.**

Riparian Birds. According to the *Analysis* and DBESP, the on-site project site does not contain suitable riparian habitat to support least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*) or western yellow-billed cuckoo (*Coccyzus americanus*) and therefore, focused surveys were not conducted for these species within the on-site project site.

However, portions of the MSHCP Conserved ARL (i.e., Alberhill Creek) contain suitable habitat for least Bell's vireo and southwestern willow flycatcher, and due to proposed off-site improvements to Nichols Road and Collier Avenue that are adjacent to the creek, focused protocol surveys for least Bell's vireo and southwestern willow flycatcher were conducted in 2020 by GLA. The 2020 surveys resulted in detection of a male least Bell's vireo (presumed nesting based on behavior) within Alberhill Creek during multiple visits within close proximity to Nichols Road and Collier Avenue. Based on the detections, the habitat within Alberhill Creek would be considered occupied and have long-term conservation value (LTCV) for least Bell's vireo.

The project is not expected to directly impact least Bell's vireo. The project will not remove any riparian habitat, including habitat with LTCV for least Bell's vireo. Riparian habitat is located adjacent to Nichols Road and Collier Avenue; however, proposed improvements adjacent to Alberhill Creek will be limited to road re-surfacing and restriping within Nichols Road and installation of a force main within the existing paved portion of Collier Avenue, with no additional widening for either Nichols Road or Collier Avenue. The project is also not expected to indirectly impact least Bell's vireo with implementation of the following avoidance measure.

LEAST BELL'S VIREO AVOIDANCE MEASURE. To avoid indirect impacts, project construction and site preparation activities including but not limited to vegetation clearing and grubbing within 300 feet of least Bell's vireo (LBV) habitat will be conducted outside of the LBV breeding season (March 15 to September 30). This will require that a qualified biologist oversee the establishment of a highly visible and maintained 300-foot buffer. Maintenance of the buffer will be performed weekly, but more often if needed.

However, if the improvements to Nichols Road and Collier Avenue adjacent to Alberhill Creek cannot avoid the LBV breeding season, then the following measures are proposed to address potential indirect impacts:

***Avoidance Buffer* – If Nichols Road and Collier Avenue improvements adjacent to the Alberhill Creek riparian habitat will occur during the LBV breeding season (March 15 to September 30), then applicable measures will be implemented for any work within 300 feet of the habitat to avoid indirect impacts to LBV. The measures may include the installation of sound barriers, pre-construction surveys and/or clearance surveys. The project proponent will implement an Environmental Awareness Training program prior to the start of construction to advise workers of sensitive biological areas within Alberhill Creek adjacent to the project.**

***Sound Barriers* – The project proponent may install sound barriers along the Nichols Road and Collier Avenue rights-of-way adjacent Alberhill Creek to prevent any adverse noise effects to LBV during construction. If utilized, the sound barriers will be installed prior to any work conducted after March 15 and will remain in place until August 31, unless it is first determined through surveys that LBV are not occupying habitat in the adjacent creek. To confirm the effectiveness of the sound barriers, a qualified biological monitor will measure noise levels within the creek on the opposite side of the sound barriers from Nichols Road and Collier Avenue. The monitor will determine the existing ambient noise level, and then whether noise levels exceed 60 dB (or the ambient noise levels) due to construction activities. For areas where pre-construction ambient noise levels exceed 60 dB, pre-construction, ambient noise measurements can be taken by a qualified entity during the full daylight period (sunrise to sunset), and subsequently, the median average ambient noise level can be used as the baseline in lieu of 60 dB. For any nighttime construction activities, the same would be done as above but with measurements taken during the full nighttime period (sunset to sunrise). If construction noise levels exceed 60 dB or the ambient noise level, whichever is greater, then the sound barrier will be adjusted, and measurements will be re-taken. If construction noise levels are determined to be under 60 dB or the ambient noise level, whichever is greater, then construction activities will continue without any additional noise monitoring.**

***Pre-Construction and Clearance Surveys* – At least three pre-construction surveys and/or clearance surveys will be conducted for LBV in riparian habitat within Alberhill Creek that is within 300 feet of construction activities. The number of surveys will depend on when the surveys commence and whether LBV individuals are detected during the surveys. The survey visits will be conducted by a qualified biologist familiar with songs, whisper songs, calls, scolds, and plumage characteristics of adult and juvenile vireos. Surveys will be conducted between sunrise and 11:00 am. Surveys will not be conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather that individually or collectively may reduce the likelihood of detection. Any detections of LBV are to be mapped with behavior tracked across**

detections/sightings. The qualified biologist must have experience with nesting ecology and behavior of LBV to determine pre-nesting/nesting behavior.

- **If construction activities within the 300-foot buffer begin prior to March 15, then weekly surveys will be conducted by a qualified biologist starting on March 15 (or on the following Monday, if the 15th occurs during a weekend) and will continue until one or more individuals are detected, or until May 1 if no LBV are detected.**
- **If construction activities within the 300-foot buffer begin after March 15 but before May 1, then at least three weekly surveys will be conducted starting one week prior to the initiation of activities and will continue until May 1, or later to complete the minimum three surveys, unless one or more LBV individuals are detected.**
- **If sound barriers are installed prior to the initiation of construction activities, and one or more LBV individuals are detected within the 300-foot buffer, then noise monitoring will be conducted as described in the Sound Barrier measure. If the sound barriers are demonstrated to be effective at reducing noise below the stated thresholds, then additional noise monitoring will not be required. However, the monitoring biologist will inspect the sound barriers weekly to ensure the barriers are intact and will advise the project proponent if repairs are needed to the sound barriers.**

Noise Monitoring **– If sound barriers are not installed prior to the start of construction activities, then daily noise monitoring will be conducted between March 15 and September 30 if LBV are detected at any point during the pre-construction/clearance surveys. A qualified biological monitor will measure noise levels at the edge of the occupied habitat and work shall cease if, at any time, noise levels exceed 60 dB due to construction activities, or the existing ambient level if that is over 60 dB. Work will re-start if sound barriers are installed and are demonstrated to effectively reduce monitoring. If it is determined that the sound barriers are not sufficiently reducing noise levels, then the work will remain halted, and the project proponent will contact CDFW and USFWS to discuss if other methods are available to reduce noise levels below the stated threshold.**

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.**

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

Based on the information provided in the *Analysis* and DBESP, the project demonstrates consistency with Section 6.1.2 of the MSHCP.

b. **Section 6.1.3 NEPSSA Plants** [6]. Portions of the project site are located within a Narrow Endemic Plant Species Survey Area (NEPSSA) for California Orcutt grass (*Orcuttia californica*), Hammitt's clay-cress (*Sibaropsis hammittii*), many-stemmed dudleya (*Dudeleya multicaulis*), Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), San Miguel savory (*Clinopodium chandleri*), slender-horned spineflower (*Dodecahema leptoceras*), spreading navarretia (*Navarretia fossalis*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). According to the *Analysis*, the project site does contain suitable habitats for all applicable NEPSSA species; therefore, focused surveys were conducted on April 13 and 23, and May 5, 20220, and on March 14, April 4 and 6, and May 3, 2022. One NEPSSA species (San Diego ambrosia) was detected in several locations within the on-site development footprint (two locations in the southern end of the site and one location in the central portion of the site) and off-site (three small populations adjacent to Pierce Street and one small population adjacent to Nichols Road). In total, an estimated 9,000 individuals of San Diego ambrosia were mapped comprising 0.44 acre of habitat that was determined to support LTCV for the species, which will be permanently impacted by the project.

The 0.44-acre impacts to San Diego ambrosia habitat with LTCV will be mitigated within the MSHCP Conserved ARL. The proposed restoration area of 1.32 acres would replace the impacted 0.44 acre of existing habitat at a minimum 3:1 ratio. Furthermore, the proposed 1.32 acres of habitat would consist of one larger and contiguous block of habitat, compared with 0.44 acre of existing habitat consisting of six smaller patches of habitat scattered throughout the project site.

The project will develop and implement a San Diego Ambrosia Translocation Plan that will identify proposed salvage and translocation methods from the donor sites, site preparation methods of the receiver sites, plant palettes, success criteria, maintenance, long-term management and monitoring procedures, contingency measures, and funding of an endowment needed for any long-term management needs that are above and beyond MSHCP land management requirements. The receiver sites will be located within a minimum of 1.32 acres of contiguous degraded habitat in the Alberhill Creek floodplain to be restored by the project. GLA collected soil samples from the donor and proposed receiver sites, and the soil samples were analyzed for compatibility to support the proposed translocation efforts. The project proponent will provide the results of the soils analysis to the RCA, Wildlife Agencies, and CNRA as part of the review process for the San Diego Ambrosia Translocation Plan. The San Diego Ambrosia Translocation Plan will be submitted to the RCA, Wildlife Agencies, and CNRA for review and approval prior to implementation.

The San Diego Ambrosia Translocation Plan will ultimately determine the full extent of success criteria and consistency measures through coordination, review, and approval with the RCA, Wildlife Agencies, and CNRA.

SAN DIEGO AMBROSIA TRANSLOCATION PLAN. Permanent impacts to 0.44 acre of San Diego ambrosia (*Ambrosia pumila*) habitat with long-term conservation value will be offset by restoration and translocation of stems at a 3:1 ratio (1.32 acres). The project will develop and

[6] Due to the small impact and mitigation acreages, acreages are presented to the hundredths place to avoid rounding errors.

implement a San Deigo Ambrosia Translocation Plan that will identify proposed salvage and translocation methods from the donor sites, site preparation methods of the receiver sites, plant palettes, success criteria, maintenance/long-term monitoring procedures, and contingency measures. The project proponent will provide the results of the soils analysis to the Western Riverside County Regional Conservation Authority (RCA), Wildlife Agencies [United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)], and California Natural Resources Agency (CNRA) as part of the review process for the San Diego Ambrosia Translocation Plan. The receiver sites will be located within a minimum of 1.32 acres (3:1 ratio) of contiguous degraded habitat in the Alberhill Creek floodplain to be restored by the project. The San Deigo Ambrosia Translocation Plan will be submitted to the RCA, Wildlife Agencies, and CNRA for review and approval prior to implementation.

Based on the information provided in the *Analysis* and DBESP, the project demonstrates consistency with Section 6.1.3 of the MSHCP.

c. **Section 6.3.2. Additional Survey Needs and Procedures.** The following describes Additional Survey Needs and Procedures applicable to the proposed project**:**

CASSA. Portions of the project site are located within a Criteria Area Species Survey Area (CASSA) for Coulter's goldfields, Davidson saltscale (*Atriplex serenana* var. *davidsonii*), little mousetail (*Myosurus minimus*), Parish's brittlescale (*Atriplex parishii*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), and thread-leaved brodiaea (*Brodiaea filifolia*). According to the *Analysis*, the project site does contain suitable habitats for all applicable CASSA species; therefore, focused surveys were conducted on April 13 and 23, and May 5 and 20, 2020, and on March 14, April 4 and 6, and May 3, 2022.

One CASSA species (Coulter's goldfields) was detected in several locations within the three vernal pools as well as location within the MSHCP Conserved ARL near Alberhill Creek. The majority of Coulter's goldfields observed are associated with Vernal Pool 1 and 3 and approximately 9,000 plants with a total of 2.70 acres of habitat were determined to support LTCV. GLA also detected the San Jacinto Valley crownscale, which is a Criteria Area Plant species, but not one that is described for the applicable CAPSSA. However, the San Jacinto Valley crownscale is associated with Vernal Pool 1, and therefore is relevant to the project pursuant to the MSHCP Riparian/Riverine and Vernal Pool Policies (Section 6.1.2).

The project will impact 0.50 acre of the 2.70-acre of Coulter's goldfields habitat determined to have LTCV (20 percent), of which occur within Vernal Pool 3 due to the construction and maintenance of the adjacent spreading structure. Additionally, the project will directly impact approximately 10 individuals of San Jacinto Valley crownscale outside of Vernal Pool 1, but within the broader watershed of the pool. Although little mousetail was not detected within any of the vernal pools during the focused CASSA plant surveys, based on the 2017 record of little mousetail at the property it is possible that the record is associated with Vernal Pool 3 and that the partial impacts to Vernal Pool 3 might impact little mousetail.

If present, impacts would be up to 0.16 acre of habitat with LTCV, as that is the acreage of the vernal pool that would be impacted by the project.

To mitigate the loss of 0.50 acre of habitat with LTCV for Coulter's goldfields, the project will restore/expand Coulter's goldfields habitat in two areas; specifically, expansion of habitat associated with Vernal Pool 3 by approximately 0.75 acre and the expansion of another 0.75-acre area in the Alberhill Creek floodplain adjacent to an existing population of Coulter's goldfields and vernal barley. Although the project is not subject to the CASSA policies relative to the San Jacinto Valley crownscale, because the project site is not in the CAPSSA for the San Jacinto Valley crownscale, the project is subject to the Section 6.1.2 policies pertaining to vernal pools. Because the San Jacinto Valley crownscale occurs within Vernal Pool 1 and its immediate watershed, impacts to San Jacinto Valley crownscale within the watershed will require mitigation. Specifically, seed will be collected from crownscale individuals prior to any disturbance of the site, and that seed will be transferred directly to Vernal Pool 1 to supplement the existing flora of the pool. This seed collection/transfer will also be addressed in the HMMP. If little mousetail presently occurs in Vernal Pool 3, then the expansion of the vernal pool would mitigate those impacts, as it would address all vernal pool flora associated with Vernal Pool. However, because there was no confirmation of little mousetail during GLA's surveys, there will not be any performance standards specific to little mousetail, as there is no guarantee of little mousetail propagules being present in the edge portion of the vernal pool to be impacted where soil inoculum would be collected prior to impact.

The project will develop and implement an HMMP to address the mitigation efforts as detailed above in Section 6.1.2 (Vernal Pools).

Burrowing Owl. The project site is located within an Additional Survey Needs and Procedures Area for burrowing owl (*Athene cunicularia*). In accordance with the County of Riverside's Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (RCA 2006), a Step I Habitat Assessment was conducted within the project site and within an additional 500-foot buffer around the site. According to the *Analysis*, suitable habitat was detected within the project site; therefore, due to the presence of suitable habitat, a Step II-A Focused Burrow Surveys and Step II-B Focused Burrowing Owl Surveys were conducted on March 9, April 4, May 2, and June 3, 2022. No burrowing owl or burrowing owl sign (e.g., whitewash, feathers, tracks, or pellets) were observed within the project; however, a single owl pellet was observed at a burrow within the MSHCP Conserved ARL along the fence line. According to the *Analysis*, it was not clear how old the pellet was but given the lack of other sign and that no owls were observed during the surveys, the pellet likely indicates a transient owl that was not occupying the site during the focused surveys.

BURROWING OWL MEASURE. Due to the presence of potentially suitable habitat, a 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities (including vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, grading, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the

initiation of ground-disturbing activities, the project proponent will immediately inform the Western Riverside County Regional Conservation Authority (RCA) and the Wildlife Agencies, and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the site since it was last disturbed. If burrowing owl is found, the same coordination described above will be necessary.

Based on the information provided by in the *Analysis*, the project demonstrates consistency with Section 6.3.2 of the MSHCP.

d. **Section 6.1.4. Urban/Wildlands Interface Guidelines.** To preserve the integrity of areas adjacent to the project site which are existing MSHCP Conservation Areas, the guidelines contained in Section 6.1.4 related to controlling adverse effects for development adjacent to the MSHCP Conservation Area should be considered by the Permittee in their actions relative to the project. Therefore, the Permittee should include the following measures as project conditions of approval, as applicable:

SECTION 6.1.4 MEASURE.

i. **Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. Best Management Practices (BMPs) will be implemented to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm downstream biological resources or ecosystems.**

ii. **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. The greatest risk is from landscaping fertilization overspray and runoff.**

iii. **Night lighting shall be shielded and directed downward and away from the MSHCP Conservation Area to protect species from direct night lighting. Post-project ambient light levels within the MSHCP Conservation Area shall not exceed that of pre-project conditions as a result of light spill from the project site. A responsible party, such as a Homeowners Association or other legally recognized entity, will be assigned prior to occupancy and will be responsible for maintaining the lighting in perpetuity. Any lighting issues will be addressed within 30 days of receiving input from the RCA.**

iv. **Proposed noise-generating land uses affecting the MSHCP Conservation Area, including designated avoidance areas, 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.**

v. **Avoid use of invasive, non-native plant species listed in Table 6-2 of the MSHCP in approving landscape plans for the portions of the project that are adjacent to the MSHCP Conservation Area, including avoidance areas. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas and designated avoidance 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.**

vi. **Fencing shall be designed to prevent access to the MSHCP Conservation Area by unauthorized public access, domestic animals, and illegal trespass or dumping. This shall include, at a minimum, barriers with a minimum height of 6 feet with no greater than 2-inch openings (i.e., tubular steel fencing with tines set on 2-inch centers) and shall include a metallic or masonry component (i.e. wire mesh cloth) buried to a minimum depth of 12 inches below ground surface level to prevent domestic animals from gaining access to the MSHCP Conservation Area by digging under. This fencing shall be installed at the interface with the MSHCP Conservation Area, as well as other portions of the project where access to the MSHCP Conservation Area could be achieved. A responsible party, such as a Homeowners Association or other legally recognized entity, will be assigned prior to occupancy and will be responsible for maintaining the fencing in perpetuity. Any fencing issues will be fixed within 30 days of receiving input from the RCA.**

vii. **Manufactured slopes associated with proposed site development shall not extend into the MSHCP Conservation Area.**

viii. **Weed abatement and fuel modification activities are not permitted in the Conservation Area, including designated avoidance areas.**

c. **Appendix C**. The following best management practices (BMPs), as applicable, shall be implemented for the duration of construction:

APPENDIX C MEASURE.

i. **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.**

ii. **Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.**

iii. **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.**

iv. **The upstream and downstream limits of project disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.**

v. **Projects should be designed to avoid the placement of equipment and personnel within the stream channel or on sand and gravel bars, banks, and adjacent upland habitats used by target species of concern.**

vi. **Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of riparian species identified in MSHCP Global Species Objective No. 7.**

vii. **When stream flows must be diverted, the diversions shall be conducted using sandbags or other methods requiring minimal instream impacts. Silt fencing of other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.**

viii. **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 CDFG [CDFW], RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.**

ix. **Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.**

x. **The qualified project biologist shall monitor construction activities for the duration of the project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.**

xi. **The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.**

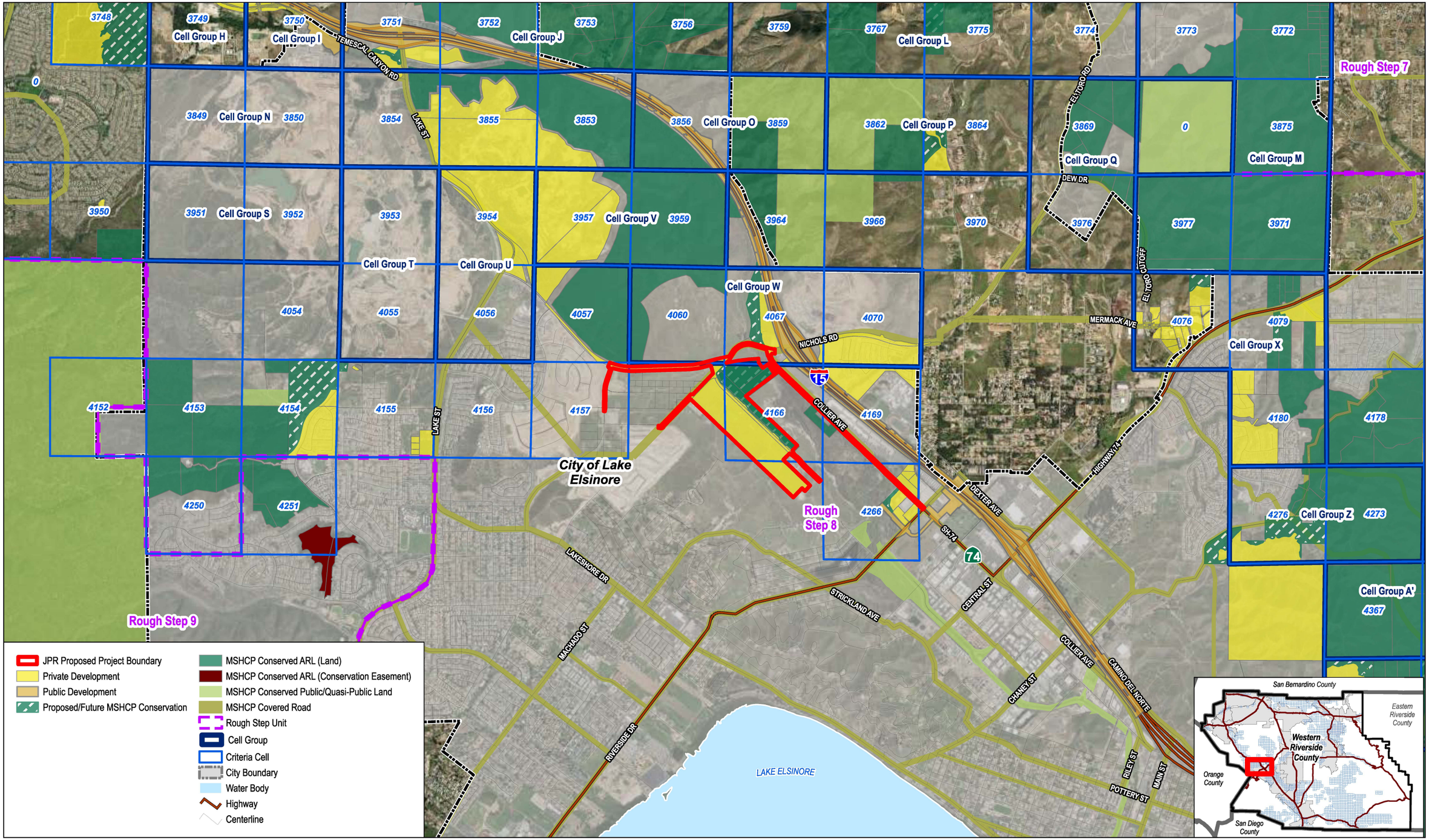
xii. **Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.**

xiii. **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).**

xiv. **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.**

xv. **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.**

BS



SOURCE: Western Riverside County Regional Conservation Authority 2024; County of Riverside 2024; Esri Basemap 2024. Map created on 7/30/2025.

Regional Conservation Authority
Western Riverside County

r14558
Permittee: City of Lake Elsinore
LEAP 2023-04/Baker Street Industrial Project

0 1,000 2,000 Feet

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EXHIBIT A

JPR Log No. 24-05-03-01- Regional

JPR Log No. 24-05-03-01

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 5/7/2024

Regional Conservation Authority
Western Riverside County

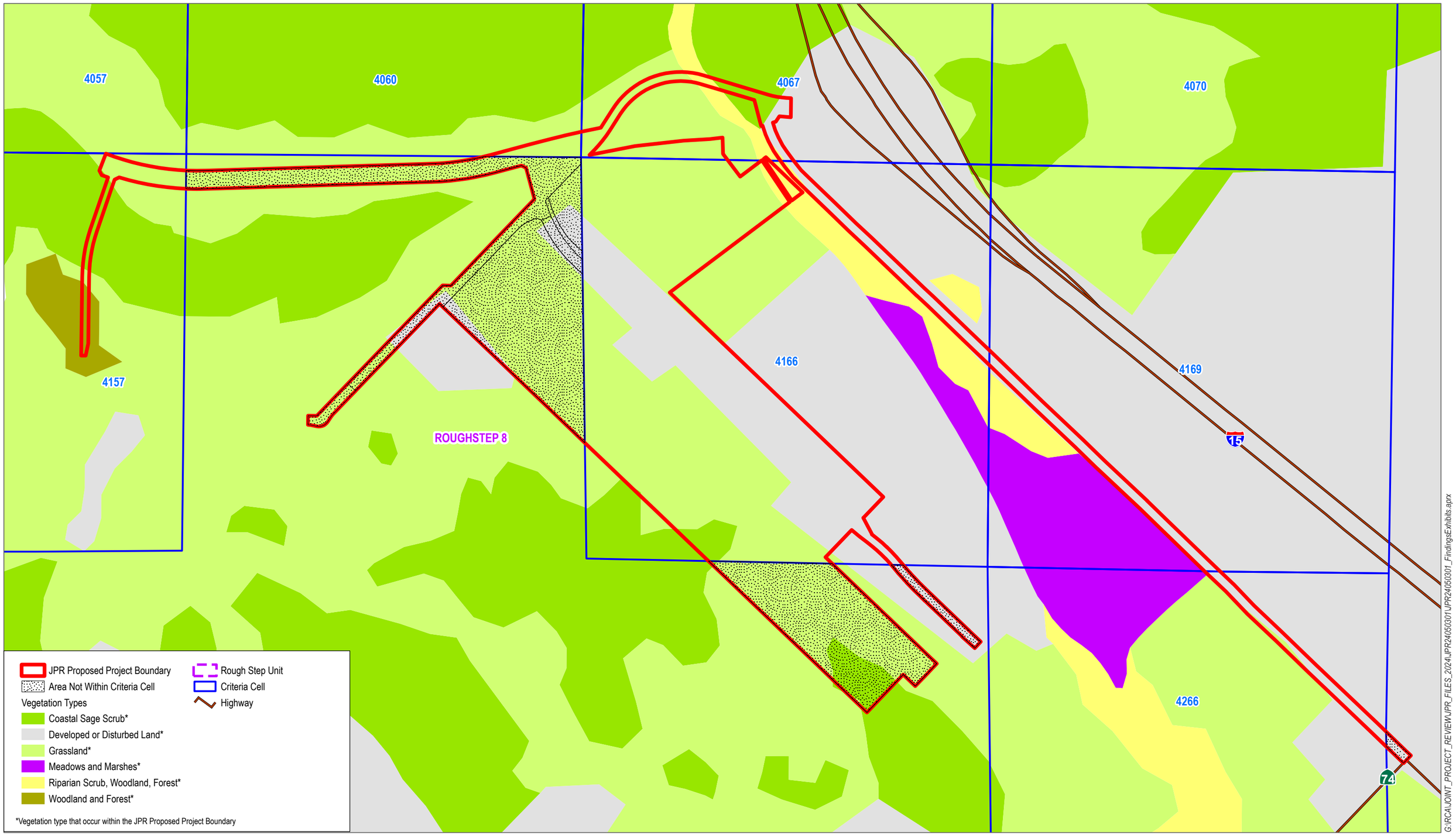
r14558
Permittee: City of Lake Elsinore
LEAP 2023-04/Baker Street Industrial Project

0 2 4 Miles

EXHIBIT B

JPR Log No. 24-05-03-01 - Vicinity Map with MSHCP Schematic Cores and Linkages

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SOURCE: WRC-RCA MSHCP Baseline Vegetation (1994). Map created on 7/30/2025.

Regional Conservation Authority
Western Riverside County

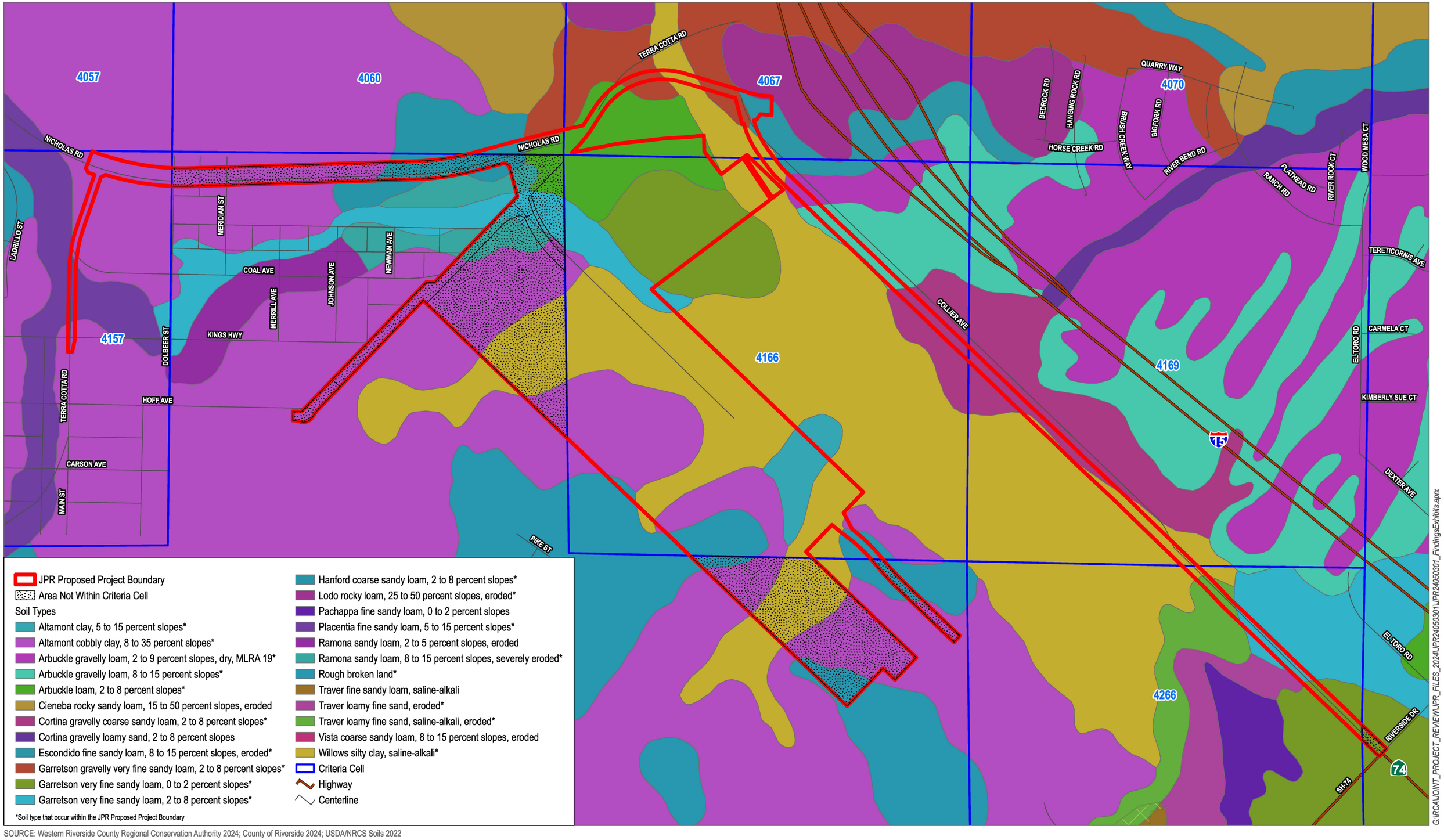
r14558
Permittee: City of Lake Elsinore
LEAP 2023-04/Baker Street Industrial Project

0 500 1,000 Feet

EXHIBIT C

JPR Log No. 24-05-03-01- MSHCP 1994 Baseline Vegetation

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SOURCE: Western Riverside County Regional Conservation Authority 2024; County of Riverside 2024; USDA/NRCS Soils 2022

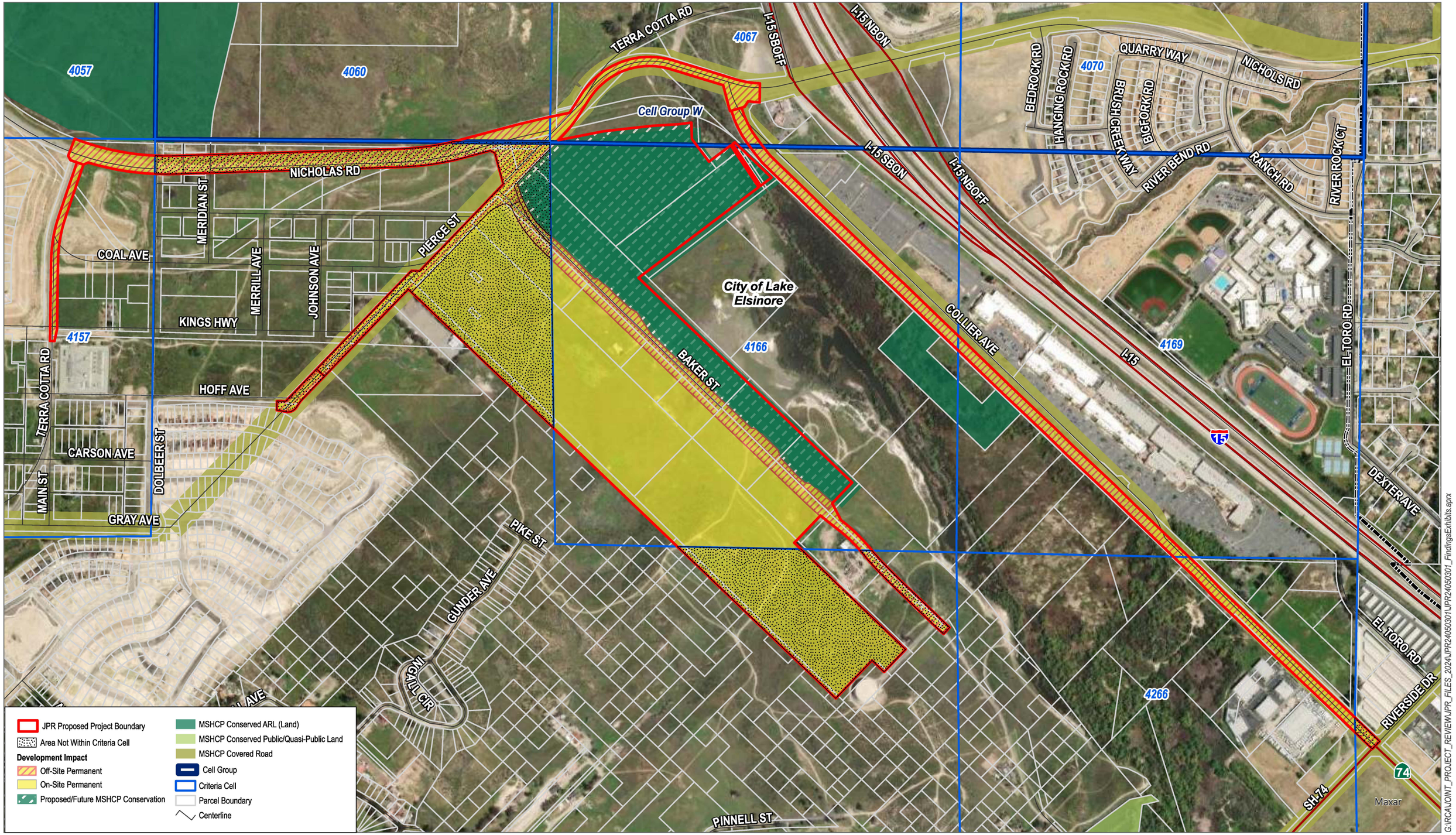
Regional Conservation Authority
Western Riverside County

r14558
Permittee: City of Lake Elsinore
LEAP 2023-04/Baker Street Industrial Project

0 500 1,000 Feet

EXHIBIT D
JPR Log No. 24-05-03-01- Soil

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SOURCE: Western Riverside County Regional Conservation Authority 2024; County of Riverside 2024; Esri Basemap 2024. Map created on 7/30/2025.

Regional Conservation Authority
Western Riverside County

r14558
Permittee: City of Lake Elsinore
LEAP 2023-04/Baker Street Industrial Project

0 500 1,000 Feet

EXHIBIT E

JPR Log No. 24-05-03-01- Project Detail

G:\RCA\JOINT_PROJECT_REVIEW\JPR_FILES_2024\JPR24050301\JPR24050301_FindingsExhibits.aprx

Attachment A

City Letter and Email Correspondences

CITY OF LAKE ELSINORE
DREAM EXTREME

May 13, 2025

Julianna Zaleski
RCA Joint Project Review
4080 Lemon Street, 3rd Floor
Riverside, CA 92501

Subject: Baker Street, Lake Elsinore – Covered Roads Statement

Dear RCA, CDFW, and USFWS,

On behalf of the City of Lake Elsinore, I am writing to formally acknowledge the City's understanding that the expansion of Baker Street nor the throughput of Baker Street cannot be pursued without the processing of a minor or major amendment with the Multiple Species Habitat Conservation Program (MSHCP) for designation as a Covered Road. Baker Street is currently dedicated as a 60-foot right-of-way along the subject property frontage. The project owns 4 feet on either side of the existing right-of-way which would result in a 68-foot ultimate ROW once fully dedicated to the City through an Irrevocable Offer of Dedication. The additional 4 feet on either side of Baker Street will remain under project ownership until the city processes a minor or major amendment for MSCHP coverage to facilitate the buildout of Baker Street from Pierce to Riverside, consistent with the City's Circulation Element. An easement for access and maintenance purposes can be provided to the City until the MSHCP amendment has been formally accepted by Riverside County Conservation Authority and California Fish & Wildlife. Once the amendment is completed, the 4 feet on either side of Baker Street can be dedicated to the city, at no expense to the city.

Please do not hesitate to reach out with any questions. I can be contacted at jsimpson@lake-elsinore.org and (951) 848-0496 for any questions or further coordination.

Respectfully submitted,

Jason Simpson
City Manager
City of Lake Elsinore

951.674.3124
130 S. Main Street
Lake Elsinore, CA 92530
www.lake-elsinore.org

From: Beck, Carly@Wildlife <Carly.Beck@wildlife.ca.gov>
Sent: Thursday, April 17, 2025 4:01 PM
To: Cleary-Rose, Karin; Dane Palanjian; Paul Fizer; TCampbell@RCTC.org; Aaron Gabbe
Cc: Damaris Abraham; Remon Habib; Nancy Huynh; Yu Tagai; David Mann; Heather Roberts
Subject: RE: [EXTERNAL] RE: Baker Street Industrial Covered Roads

[NON-EPD]
I agree with revised language.

Cheers,

Carly Beck
Senior Environmental Scientist (Supervisor)
Inland Deserts Region
California Department of Fish and Wildlife
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
951-218-2940

*****Please note that a Lake and Streambed Agreement does not provide incidental take for the candidate species Crotch's Bumble Bee (Bombus crotchii) nor is it a covered species under the Western Riverside Multiple Species Habitat Conservation Plan. If a project has the potential to affect suitable habitat for the species CDFW recommends following the guidelines as provide https://wildlife.ca.gov/Conservation/CESA.**

From: Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>
Sent: Thursday, April 17, 2025 3:47 PM
To: Dane Palanjian <dane@epdsolutions.com>; Paul Fizer <pfizer@Lake-Elsinore.org>; TCampbell@RCTC.org; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <Carly.Beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Heather Roberts <heather@epdsolutions.com>
Subject: Re: [EXTERNAL] RE: Baker Street Industrial Covered Roads

WARNING: This message is from an external source. Verify the sender and exercise caution when clicking links or opening attachments.

Hi Dane,

Please see my edits below. I know we worked to get the respective agency names correct, but I think the below text will work.

Prior to the City's acceptance of the street improvements to the existing Baker Street 60-foot right of way provided by the Developer, Developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the Developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of eight additional feet of right-of-way, which offer of dedication may be accepted by City at a future date contingent upon the City's compliance with the Multiple Species Habitat Conservation Program (MSHCP) by completing a either a minor or major amendment for Baker Street. ~~for Covered Roads in which the Western Riverside County Regional Conservation Authority (RCA), California Department of Fish & Wildlife (CDFW), United States Fish & Wildlife Service (USFWS) accept from the City of Lake Elsinore .~~

What does everyone think?

Karin

Karin Cleary-Rose (she/her)
Inland Division Supervisor
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262
(760) 322 2070 ext 406
(760) 331 8844 cell
email is best

From: Dane Palanjian <dane@epdsolutions.com>
Sent: Thursday, April 17, 2025 2:32 PM
To: Paul Fizer <pfizer@Lake-Elsinore.org>; Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>; TCampbell@RCTC.org <TCampbell@RCTC.org>; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Heather Roberts <heather@epdsolutions.com>
Subject: RE: [EXTERNAL] RE: Baker Street Industrial Covered Roads

Hello,

Following up per our conversation with the revised language related to Covered Roads. It would be greatly appreciated if each of the three agencies could respond providing their concurrence on this language. Additionally, our team will work with the City in preparing a standalone letter from the City further acknowledging this.

Prior to the City's acceptance of the street improvements to the existing Baker Street 60-foot right of way provided by the Developer, Developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the Developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of eight additional feet of right-of-way, which offer of dedication may be accepted by City at a future date contingent upon the City's compliance with the Multiple Species Habitat Conservation Program (MSHCP) for Covered Roads in which the Western Riverside County Regional Conservation Authority (RCA), California Department of Fish & Wildlife (CDFW), United States Fish & Wildlife Service (USFWS) accept from the City of Lake Elsinore either a minor or major amendment for Baker Street.

City shall not accept offer of dedication until such time that City has complied with future contingencies. Prior to grading permit issuance, the Developer and the City should enter into an agreement – recorded against the subject property - outlining the City's conditions for accepting the Irrevocable Offer of Dedication. Once the specified contingencies have been met and dedication accepted and recorded, the agreement shall become null and void.

Thank you,

Dane Palanjian| *Senior Project Manager*

Dane@epdsolutions.com

949.794.1188| cell

3333 Michelson Drive | Suite 500 | Irvine, CA 92612

www.epdsolutions.com

How did we do today? Please let us know by answering this short Survey!

E | P | D SOLUTIONS, INC

From: Paul Fizer <pfizer@Lake-Elsinore.org>
Sent: Monday, April 14, 2025 3:48 PM
To: Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>; TCampbell@RCTC.org; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Dane Palanjian <dane@epdsolutions.com>; Heather Roberts <heather@epdsolutions.com>
Subject: RE: [EXTERNAL] RE: Baker Street Industrial Covered Roads

[NON-EPD]

Hi Karin,

Understanding your enforceability concerns you may be anticipating, in coordination with the developer, we've added the following language in bold below to help address those concerns more directly.

Prior to the City's acceptance of the street improvements to the existing Baker Street 60-foot right of way provided by the Developer, Developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the Developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of eight additional feet of right-of-way, which offer of dedication may be accepted by City at a future date contingent upon the City's compliance with the Multiple Species Habitat Conservation Program (MSHCP) for Covered Roads in which the Western Riverside County Regional Conservation Authority (RCA), California Department of Fish & Wildlife (CDFW), United States Fish & Wildlife Service (USFWS) accept from the City of Lake Elsinore either a minor or major amendment for Baker Street.

City shall not accept offer of dedication until such time that City has complied with future contingencies. Prior to grading permit issuance, the Developer and the City should enter into an agreement – recorded against the subject property - outlining the City's conditions for accepting the Irrevocable Offer of Dedication. Once the specified contingencies have been met and dedication accepted and recorded, the agreement shall become null and void.

Please let me know if any questions/comments or if this is an acceptable language to condition on the project to move it forward.

Best Regards,

Paul Fizer, PE

Senior Engineer

City of Lake Elsinore

Ph: (951)-667-4559



From: Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>
Sent: Thursday, April 10, 2025 12:01 PM
To: Paul Fizer <pfizer@Lake-Elsinore.org>; TCampbell@RCTC.org; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Dane Palanjian <dane@epdsolutions.com>; Heather Roberts <heather@epdsolutions.com>
Subject: Re: [EXTERNAL] RE: Baker Street Industrial Covered Roads

Hi Paul,

I think this is closer. Is it enforceable? What if the City accepts the dedication prior to doing MSHCP implementation for Baker Street, or how would a future council be prevented from that?

Thanks,

Karin

Karin Cleary-Rose (she/her)

Inland Division Supervisor

Palm Springs Fish and Wildlife Office

777 East Tahquitz Canyon Way, Suite 208

Palm Springs, CA 92262

(760) 322 2070 ext 406

(760) 331 8844 cell

email is best

From: Paul Fizer <pfizer@Lake-Elsinore.org>
Sent: Thursday, April 10, 2025 8:48 AM
To: Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>; TCampbell@RCTC.org <TCampbell@RCTC.org>; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Dane Palanjian <dane@epdsolutions.com>; Heather Roberts <heather@epdsolutions.com>
Subject: RE: [EXTERNAL] RE: Baker Street Industrial Covered Roads

Hi Karin,

How does this verbiage sound:

Prior to the City's acceptance of the street improvements to the existing Baker Street 60-foot right of way provided by the Developer, Developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the Developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of eight additional feet of right-of-way, which offer of dedication may be accepted by City at a future date contingent upon the City's compliance with the Multiple Species Habitat Conservation Program (MSHCP) for Covered Roads in which the Riverside County Conservation Authority (RCA) and California Fish & Wildlife (CFW) accept from the City of Lake Elsinore either a minor or major amendment for Baker Street.

We can add this last sentence as needed:

City shall not accept offer of dedication until such time that City has complied with future contingencies.

Thank You,

Paul Fizer, PE

Senior Engineer

City of Lake Elsinore

Ph: (951)-667-4559

From: Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>
Sent: Monday, April 7, 2025 5:31 PM
To: Paul Fizer <pfizer@Lake-Elsinore.org>; TCampbell@RCTC.org; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Dane Palanjian <dane@epdsolutions.com>; Heather Roberts <heather@epdsolutions.com>
Subject: Re: [EXTERNAL] RE: Baker Street Industrial Covered Roads

Hi Paul,

Thank you for the language. I think it is generally on the right track, but additional specifics are needed. What are the certain mitigation obligations?

And for my own information, does ...*which offer of dedication may be accepted by City at a future date contingent upon*... mean that the City can not accept the offer of dedication before the named contingencies are met? How would that be enforced.

Thanks,

Karin

Karin Cleary-Rose (she/her)

Inland Division Supervisor

Palm Springs Fish and Wildlife Office

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(760) 322 2070 ext 406

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email is best

From: Paul Fizer <pfizer@Lake-Elsinore.org>
Sent: Monday, April 7, 2025 5:23 PM
To: TCampbell@RCTC.org <TCampbell@RCTC.org>; Cleary-Rose, Karin <Karin_Cleary-Rose@fws.gov>; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Dane Palanjian <dane@epdsolutions.com>; Heather Roberts <heather@epdsolutions.com>
Subject: [EXTERNAL] RE: Baker Street Industrial Covered Roads

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good Afternoon Responsible Agencies,

I am following up from our latest monthly discussion regarding the Baker Street right-of-way future dedications.

The City has collectively determined that the most appropriate instrument for the future dedication is to provide a condition of approval for the development's entitlement requiring the project to provide an Irrevocable Offer of Dedication for the additional right-of-way width. The preferred language is as follows:

Prior to the City's acceptance of the street improvements to the existing Baker Street 60-foot right of way provided by the Developer, Developer shall deliver to the City, in recordable form, an Irrevocable Offer of Dedication of approximately 4-feet on each of the Developer's properties adjacent to the existing Baker Street 60-foot right of way, resulting in a total of eight additional ***feet*** *of right-of-way, which offer of dedication may be accepted by City at a future date contingent upon compliance with certain mitigation obligations.*

Please let me know if any comments or thoughts on this language/path forward.

Thank You,

Paul Fizer, PE

Senior Engineer

City of Lake Elsinore

Ph: (951)-667-4559

From: Paul Fizer
Sent: Friday, February 21, 2025 3:53 PM
To: TCampbell@RCTC.org; karin_cleary-rose@fws.gov
Cc: Damaris Abraham <dabraham@lake-elsinore.org>; Remon Habib <rhabib@lake-elsinore.org>; Nancy Huynh <nhuynh@lake-elsinore.org>; Yu Tagai <ytagai@Lake-Elsinore.org>; David Mann <david@ceqa.com>; Aaron Gabbe <AGabbe@RCTC.org>; Beck, Carly@Wildlife <carly.beck@wildlife.ca.gov>
Subject: Baker Street Industrial Covered Roads

Good Afternoon, Tricia, Karin,

The City of Lake Elsinore is working to finalize the path forward to the covered roads issue for the Baker Street Industrial Project. Below is a summary in *italics* from EPD Solutions outlining the proposed solution discussed approximately two months ago in the collaborative monthly meeting with EPD Solutions, the Environmental Agencies, and the City. The City would like to confirm that this summary accurately reflects our discussions and aligns with your expectations for a possible solution moving forward. I have made a minor correction I noted in green below based on what I recall from the meeting. Please review the details and let us know if you agree or if any adjustments are needed.

> *Baker Street is currently dedicated as a 60-foot right-of-way (ROW) along the subject property frontage, with an existing buildout of Baker Street at +/- 25 feet. The project owns 4 feet on either side of the ROW, which would result in a 68-foot ultimate ROW once fully dedicated to the City. As part of the development project, offsite improvements can expand Baker Street to the ~~ultimate~~ existing ~~68~~ 60-foot ROW. Regarding the 4 feet of undedicated land on either side of Baker Street, a separate private agreement (Development Agreement or another type of instrument) can be established between the project and the City. This agreement will detail the terms for dedication to the City, including any requirements for amendments and the completion of associated improvements as part of the development project. The additional 4 feet on either side of Baker Street, a collective 8 feet, will remain under project ownership until the City processes a minor (or major) amendment for MSCHP coverage to facilitate the buildout of Baker Street from Pierce to Riverside, consistent with the City's Circulation Element. An easement for access and maintenance purposes can be provided to the City until the MSHCP amendment has been formally accepted by Riverside County Conservation Authority and California Fish & Wildlife. Once the amendment is completed, the 8 feet of additional right of way of Baker Street can be dedicated to the City, at no expense to the City.*

Looking forward to your response and/or concurrence. Please forward to anyone I may have accidentally missed on your team's side. Thank you.

Best Regards,

Paul Fizer, PE

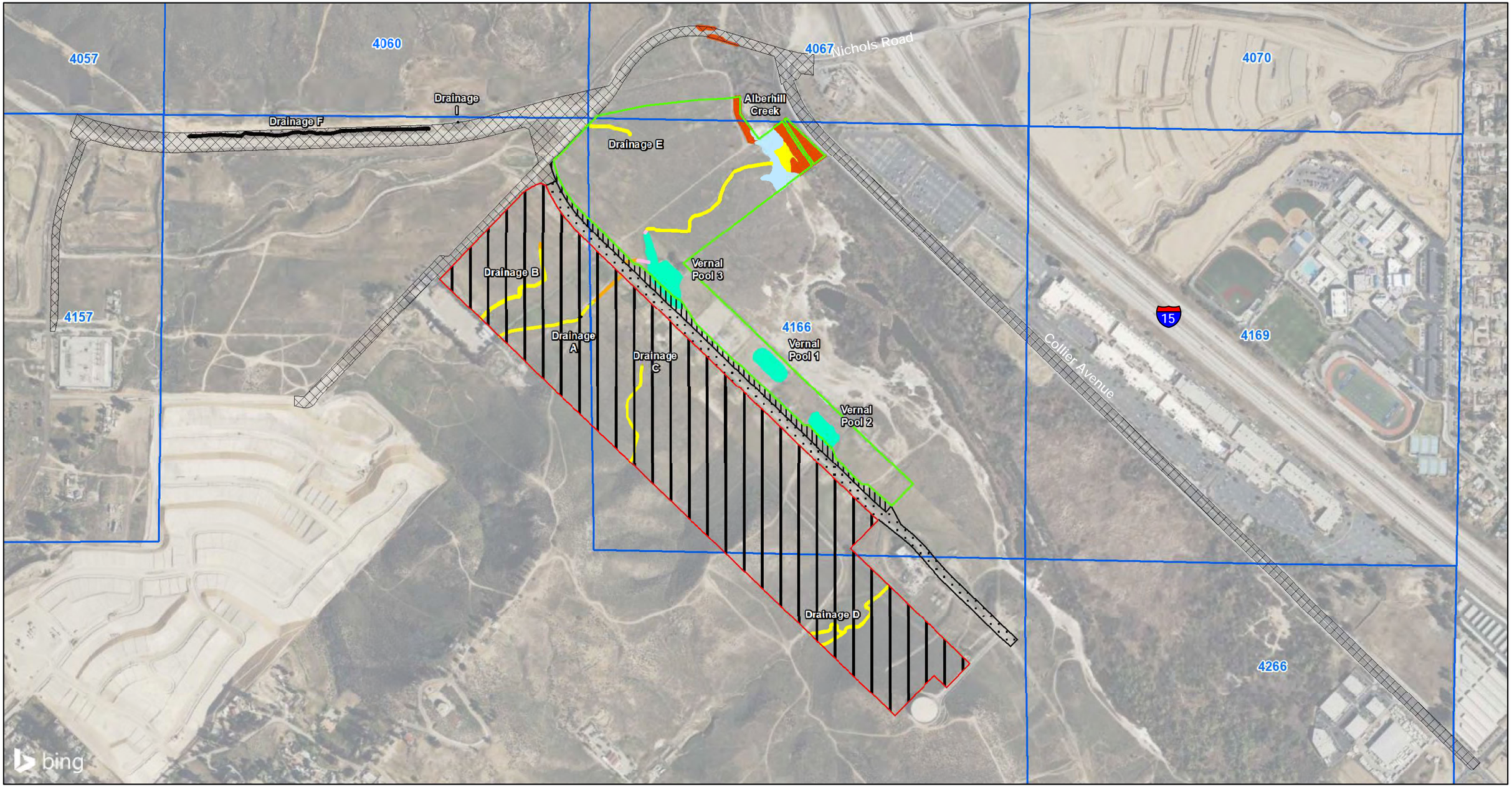
Senior Engineer

City of Lake Elsinore

Ph: (951)-674-3124 ext. 804

Attachment B

GLA Exhibit B



- Industrial (Onsite)
- Baker Street (Offsite)
- City Maintenance Area (Offsite)
- Additional Street Improvements (Offsite)
- RCA Conserved Land
- Criteria Cell
- Alkali Grassland
- Alkali Playa
- Disturbed Semi-Natural Herbaceous Grassland
- Disturbed/Developed
- Open Water
- Semi-Natural Herbaceous Grassland
- Southern Willow Riparian Scrub
- Vernal Pool

N

0 275 550 1,100

Feet

1 inch = 575 feet

Approximately 0.06 acre of riparian habitat consists of overhanging willow limbs within the existing right-of-way of Nichols Road. The Project will not remove the overhanging riparian vegetation.

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen GLA
Date Prepared: April 28, 2025

BAKER INDUSTRIAL PROJECT

MSHCP Riparian/Riverine Areas and Vernal Pools

GLENN LUKOS ASSOCIATES

Exhibit 8

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