BIOLOGICAL TECHNICAL REPORT

FOR

KELLER CROSSING RESIDENTIAL DEVELOPMENT PROJECT AND OFFSITE IMPROVEMENTS

LOCATED IN THE COMMUNITY OF FRENCH VALLEY, RIVERSIDE COUNTY, CALIFORNIA

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INFORMATION SUMMARY

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B. Report Title: Biological Technical Report for the Keller Crossing Residential Development Project and Offsite Improvements

C. Project Site Location: Community of French Valley, Riverside County, California. Latitude 33.62719°, Longitude -117.101163° [center reading].

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EXECUTIVE SUMMARY

This Biological Technical Report has been prepared to support the Keller Crossing Residential Development Project (the "Project"), including associated offsite improvements. The proposed Project consists of applications for a General Plan Amendment (GPA210004), an amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01), a Change of Zone (CZ2100012), and a Tentative Tract Map (TTM38163) to allow for the future development of the approximately 196.1-acre Project site with a mix of residential, recreational, and open space land uses. The Project would entail development of the 196.1-acre Project site with up to 694 residential dwelling units, including 77 "Medium-Density Residential (MDR)" units on 16.04 acres, 307 "Medium-High-Density Residential (MHDR)" units on 44.76 acres, and 310 "High-Density Residential (HDR)" units, 80 of which are designated as age-restricted, on 26.71 acres. The Project would also include 8.97 acres of "Open Space–Recreation" (OS-R), 16.02 acres of "Open Space–Water" (OS-W), 61.42 acres of "Open Space–Conservation Habitat" (OS-CH), 3.49 acres of "Open Space–Conservation" (OS-C), and 18.64 acres of major circulation facilities.

The Project is within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), with a portion of the Project located within the MSHCP Criteria Area (Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills). Specifically, the onsite Project falls within all or portions of Cell Group U, which includes Criteria Cells 5067, 5070, 5074, and also Criteria Cells 5169, 5173, 5175, and 5275. The offsite improvements are in portions of Criteria Cells 5067, 5169, 5173, 5174, 5175, 5275, and 5279. Because the Project is in the Criteria Area, Joint Project Review (JPR) was required. The Regional Conservation Authority (RCA) issued Joint Project Review (JPR) Findings (JPR 09-12-14-01) for the Project on January 25, 2010; however, due to changes with the Project footprint, the RCA issued Amended Findings on July 12, 2024.

The Project site does not contain any special-status vegetation communities.

Portions of the onsite and offsite Project are located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), the Narrow Endemic Plant Species Survey Area (NEPSSA), and the burrowing owl (*Athene cunicularia*) Survey Area. No NEPSSA or CAPSSA plant species are present onsite; therefore, there will not be an impact to any of these species. One special-status plant was detected at the Project site: paniculate tarplant (*Deinandra paniculata*). Impacts to paniculate tarplant would be less than significant under CEQA as the onsite population is relatively small. With the low sensitivity of this species (California Native Plant Society [CNPS] California Rare Plant Rank [CRPR] 4.2), the proposed onsite and offsite Project will not have a substantial adverse effect on the survivorship of paniculate tarplant. Additionally, while paniculate tarplant is classified as a rare plant by CNPS, it is not a federally or state-listed species. Furthermore, there are no survey or preservation requirements for this species pursuant to any resource agency or HCP, including the MSHCP.

Three special-status wildlife species, the northern harrier, California horned lark, and American badger, were observed within the onsite and/or offsite Project. The northern harrier and California horned lark are covered under the MSHCP conservation goals and therefore, onsite and offsite Project impacts to suitable habitat for these species are addressed through consistency

with, and participation in, the MSHCP. Project impacts to suitable habitat for American badger, although not a covered species, is also addressed by the conservation of suitable habitat under the MSHCP in the vicinity of the Project site.

No burrowing owls were detected within the onsite or offsite Project; therefore, the Project is not expected to have an effect on burrowing owl. A pre-construction survey for burrowing owl is also being proposed to ensure avoidance should the species colonize the Project site prior to construction.

Potential jurisdictional features identified within the onsite and offsite Project include ten ephemeral drainage features, referred to herein as Drainages A, A-1, B, C, D, E, F, G, H, and I. These features are considered as California Department of Fish and Wildlife (CDFW) and San Diego Regional Water Quality Control Board (Regional Board) jurisdiction under the Section 1602 of the California Fish and Game Code and the State's Water Quality Control Act [the Porter-Cologne Act]. A Streambed Alteration Agreement from the CDFW and a Waste Discharge Requirements (WDR) Order from the Regional Board will be required and will need to be secured to offset permanent impact to 0.36 acre of Regional Board jurisdiction and 0.44 acre of CDFW jurisdiction. No temporary impacts to jurisdictional waters under Regional Board or CDFW are expected. No U.S. Army Corps of Engineers (Corps) jurisdiction is present nor would it be impacted. Compensatory mitigation for these impacts is being proposed as noted below:

- Impacts to 0.44 acres of CDFW jurisdiction will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by the agency.

- Impacts to 0.36 acre of Regional Board impacts will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by the agency.

The Project will also result in permanent impacts to 0.44 acre of MSHCP riparian/riverine habitat. No temporary impacts to MSCHP riparian/riverine habitat are expected. Since these areas cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) was prepared and approved by the Wildlife Agencies. This impact to MSHCP Riparian/Riverine resources will be mitigated as follows:

- Impacts to 0.44 acres of MSHCP riparian/riverine areas will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by the RCA and Wildlife Agencies.

With purchase of the mitigation credits noted above, the DBESP would be considered consistent with the MSHCP and a superior option as compared to preservation of impacted drainages onsite.

Ultimately, the onsite and offsite Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the onsite and offsite 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).

1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the approximately 195.93-acre Keller Crossing Residential Development Project (the Project) and its 31.96 acres of offsite infrastructural improvements; collectively totaling 227.89 acres, located in the Community of French Valley, Riverside County, California. The onsite portion of the Project is considered as "the onsite Project" and the offsite portion of the Project is referenced as "the offsite Project." Collectively, the onsite and offsite portions of this report are considered as "The Project." 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), Clean Water Code (CWC), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 227.89-acre Project site, all methods employed regarding the general 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 United States 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 studies focused on a number of primary objectives that would comply with CEQA and MSHCP requirements, including (1) general reconnaissance surveys 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) focused-surveys for special-status floral and faunal species; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the United States Army Corps of Engineers (Corps) pursuant to Section 404 of the CWA, Regional Water Quality Control Board (Regional Board) pursuant to Section 401 of the CWA and Section 13260 of the CWC (the Porter-Cologne Act), and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600–1617 of the California 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 227.89 acres in the Community of French Valley, Riverside County, California [Exhibit 1 – Regional Map] and is located within Sections 20, 21 28, and 29, Township 6 South, and Range 2 West, of the Winchester, California United States Geological Survey (USGS) 7.5′ topographic quadrangle map; and Section 7, Township 7 South, and Range 2 West of the Murrieta, California USGS 7.5′ topographic quadrangle map [Exhibit 2 – Vicinity Map]. The onsite Project is located at Latitude 33.631397 and Longitude -117.095141 and is bordered by undeveloped land to the north, Keller Road to the south, Winchester Road to the east, and Pourroy Road to the west. There are offsite infrastructural improvements proposed within the offsite Project located along portions of Keller Road between Leon Road and the future Elmcrest Street; portions of Pourroy Road between the southern boundary of APN 472-110-002 and Winchester Road; and Winchester Road between the northeastern boundary of the onsite Project and Koon Street. There is one final infrastructural improvement located south of Keller Road easterly of Keller Flat Court [see Exhibit 3, Aerial Map].

The overall Project site (onsite and offsite improvements) contains all or part of 60 parcels, including 10 onsite parcels and 50 offsite parcels, as well as rights-of-way associated with Winchester Road, Keller Road and Pourroy Road. Table 1-1 provides a summary list of Assessor's Parcel Numbers (APN) for the onsite and offsite Project.

Table 1-1. List of APNs for the Onsite and Offsite Project

Onsite APNs				
472110001	472110003	472110007	472110009	472110033
472110002	472110004	472110008	472110032	472110034
Offsite APNs				
472090001	472090026	472320003	476010001	476010028
472090015	472090027	472320004	476010002	476010029
472090016	472110024	472320013	476010003	476010052
472090017	472110025	472320015	476010004	476010056
472090018	472110029	472320024	476010005	476010060
472090019	472110031	472320025	476010006	476010079
472090020	472110042	472320026	476010009	476010080
472090021	472110043	427320027	476010011	476010081
472090024	472320001	472320033	476010012	476010082
472090025	472320002	472320035	476010027	476010083

The Riverside County GIS layer for the parcels contains drawing and/or projection errors resulting in mapping inaccuracies when the County parcel layer is overlaid with the surveyed boundary of the Project. For example, overlaying the County parcels indicates slight overlap with the following parcels located north of the Project's proposed conservation: 472-070-001, 472-100-003, 472-100-004, 472-100-005, 472-100-010, 0472-100-019 and 0472-100-025. However, the Project's engineer has verified that these parcels are not within the surveyed boundary of the Project. The Project will conserve 61.42 acres of land in the northern portion of the Project site. Table 1-2 below identifies the parcels associated with the proposed conservation areas.

Table 1-2. List of APNs for the Proposed Conservation Area

Assessor's Parcel Number (APN)	Acreage
472110001	19.27
472110002	6.83
472110003	4.31
472110004	9.68
472110032	18.39
472110033	2.94
Total	**61.42**

1.3 Project History

The onsite Project and its conservation open space area was approved as part of Joint Project Review (JPR) Number 09-12-14-01 on January 25, 2010. The approved acreage totaled 195.13 acres for the onsite Project and 61.10 acres for the conservation open space area. The Project Habitat Acquisition and Negotiation Strategy (HANS) approval [HANS 1995] for the onsite Project occurred on the same date.

The Project was subsequently revised to include offsite improvements, expanding the total Project area to 227.88 acres, including 195.93 acres onsite and 31.95 acres of offsite improvements. The onsite boundary was changed relative to the 2010 JPR by extending the onsite boundary to the south to include a portion of Keller Road, while re-designating a lesser amount of development lands to the east as "offsite" that in 2010 were originally identified as "onsite". This resulted in a net increase of the "onsite" portion of the Project by 0.80 acre relative to the original JPR acreage, for a revised onsite total of 195.93 acres. In addition, the Specific Plan identifies the MSHCP Conservation Area as 61.42 acres, representing the same area previously proposed as conservation, but with minor changes in the overall boundary along the edges resulted in a net increase of 0.32 acre of the total conservation area. The RCA issued Amended JPR Findings on July 12, 2024, which acknowledged a 227.9-acre Project footprint of which 61.4 acres is proposed for conservation [Appendix C].[1] This conservation will contribute

[1] In the JPR Amended Findings for the Project, the RCA rounded the acres identified in the JPR application. The total Project area identified as 227.88 acres in the JPR application was rounded to 227.9 acres and the conservation area was rounded from 61.42 acres to 61.4 acres.

to the MSHCP Reserve. This Biological Technical Report is being prepared in support of Project approvals associated with an updated site plan to account for existing market conditions, which includes a minor change in the offsite improvement area boundary. This report includes the results of surveys conducted in 2021 as well as updated surveys conducted in 2025.

1.4 Project Description

The proposed Project consists of applications for a General Plan Amendment (GPA210004), an amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01), a Change of Zone (CZ2100012), and a Tentative Tract Map (TTM38163) to allow for the future development of the approximately 196.1-acre Project site with a mix of residential, recreational, and open space land uses. The Project would entail development of the 196.1-acre Project site with up to 694 residential dwelling units, including 77 "Medium-Density Residential (MDR)" units on 16.04 acres, 307 "Medium-High-Density Residential (MHDR)" units on 44.76 acres, and 310 "High-Density Residential (HDR)" units, 80 of which are designated as age-restricted, on 26.71 acres. The Project would also include 8.97 acres of "Open Space–Recreation" (OS-R), 16.02 acres of "Open Space–Water" (OS-W), 61.42 acres of "Open Space–Conservation Habitat" (OS-CH), 3.49 acres of "Open Space–Conservation" (OS-C), and 18.64 acres of major circulation facilities. The governmental approvals requested from Riverside County to implement the Project consist of the following:

1. Adoption by resolution of a General Plan Amendment (GPA210004);
2. Adoption of Amendment No. 1 to Specific Plan No. 380 (SP00380A01);
3. Adoption by ordinance of a Change of Zone (CZ2100012); and
4. Adoption by resolution of Tentative Tract Map No. 38163 (TM38163)

Project's Component Parts and Discretionary Approvals

The proposed Project consists of applications for General Plan Amendment No. 210004 (GPA210004), Amendment No. 1 to the Keller Crossing Specific Plan No. 380 (SP00380A01; herein, "SP 380A1"), Change of Zone No. 2100012 (CZ2100012), and Tentative Tract Map No. 38163 (TTM38163) to allow for the future development of the 196.1-acre Project site with up to 694 residential dwelling units and a 9.0-acre park.

General Plan Amendment No. 210004

The Project Applicant proposes to revise the existing General Plan land use designations across the 196.1-acre Project site. Under existing conditions, the Project site is designated for "Very Low Density Residential (VLDR)," "Low Density Residential (LDR)," "Mixed Use," "Commercial Retail (CR)," and "Conservation" land uses. As part of GPA No. 210004, the 196.1-acre Project site would be redesignated to include 16.04 acres of "Medium Density Residential (MDR)," 44.76 acres of "Medium-High Density Residential (MHDR)," 26.71 acres of "High Density Residential (HDR)," 8.97 acres of "Open Space–Recreation (OS-R)," 16.02 acres of "Open Space–Water (OS-W)," 61.42 acres of "Open Space–Conservation Habitat (OS-CH)," and 3.49 acres of "Open Space–Conservation (OS-C)," with approximately 18.64 acres allocated for roadways and circulation infrastructure. The MDR land use designation is intended

to accommodate single-family detached and attached residential development with a density range of 2 to 5 dwelling units per acre and minimum lot sizes ranging from 5,500 to 20,000 square feet. The MHDR designation supports residential development at 5 to 8 dwelling units per acre and may include small-lot detached homes, townhomes, or cluster housing on lots of 4,000 to 6,500 square feet. The HDR designation supports higher-density residential development with a range of 8 to 14 dwelling units per acre and is intended to accommodate multi-family housing, age-qualified communities. The OS-R designation is intended to accommodate recreational uses including parks (neighborhood parks allowed), trails, athletic fields, and golf courses. The OS-C land use designation land use designation is intended to provide for the protection of open space for natural hazard protection, cultural preservation, and natural and scenic resource preservation. The OS-CH land use designation applies to public and private lands conserved and managed in accordance with adopted Multi Species Habitat and other Conservation Plans and in accordance with related Riverside County policies. The OS-W land use designation is intended to accommodate bodies of water and natural or artificial drainage corridors.

Change of Zone No. 2100012

The Riverside County Zoning Ordinance (Ordinance No. 348), which is part of the County's Municipal Code, assigns a zoning designation to all properties within unincorporated Riverside County. All development within the County is required to comply with the provisions of the Zoning Ordinance. Under existing conditions, the Project site is zoned "Specific Plan Zone (SP Zone)," indicating that the property lies within the boundaries of an adopted specific plan. Accordingly, the Project site is subject to the zoning classifications, land use regulations, and development standards established by the adopted Keller Crossing Specific Plan No. 380 (SP 380). A Change of Zone (CZ No. 2100012) is proposed as part of the Project to revise the zoning within the Project site to reflect the modified land use plan and development standards included in Specific Plan Amendment No. 1 (SP 380A1). Specifically, CZ2100012 would amend the boundaries and development regulations of the Specific Plan's planning areas to accommodate the proposed mix of Medium Density Residential (MDR), Medium-High Density Residential (MHDR), High Density Residential (HDR), Open Space–Recreation (OS-R), Open Space–Water (OS-W), Open Space–Conservation Habitat (OS-CH), and Open Space–Conservation (OS-C) land uses, as proposed under SP 380A1. Refer to subsection 3.5.3 for a description of the land uses and development standards proposed as part of SP 380A1.

Specific Plan No 380, Amendment No. 1

<u>Proposed Land Uses</u>

The Project entails the first amendment to the Keller Crossing Specific Plan No. 380 (SP 380A1). Proposed SP 380A1 would allow for the future development of the approximately 196.1-acre Project site with up to 694 residential dwelling units, including 77 "Medium-Density Residential (MDR)" units on 16.04 acres, 307 "Medium-High-Density Residential (MHDR)" units on 44.76 acres, and 310 "High-Density Residential (HDR)" units, 80 of which are designated as age-restricted, on 26.71 acres. The Project also would include 8.97 acres of "Open Space–Recreation" (OS-R), 16.02 acres of "Open Space–Water" (OS-W), 61.42 acres of "Open Space–Conservation Habitat" (OS-CH), 3.49 acres of "Open Space–Conservation" (OS-C), and

18.64 acres of major circulation facilities. (OS-W)," 61.42 acres of "Open Space–Conservation Habitat (OS-CH)," and 1.0 acre of "Open Space–Conservation (OS-C)." Approximately 17.83 acres would be reserved for roadway infrastructure including right-of-way dedications for major and internal streets.

SP 380A1 would achieve this by modifying the allocation, distribution, lot sizes, and development standards of the land uses within the Keller Crossing Specific Plan No. 380. Specifically, the proposed land uses within SP 380A1 would include the following:

- **Medium Density Residential (MDR):** SP 380A1 would allow for a total of 77 medium-density residential dwelling units on minimum lot sizes ranging from 3,000-4,000 s.f. on approximately 16.04 acres within Planning Area (PA) 1, with an overall density of approximately 4.8 dwelling units per acre (du/ac). Access to PA 1 would be provided via Keller Road and proposed Street A.

- **Medium High Density Residential (MHDR):** SP 380A1 would allow for a total of 307 residential dwelling units within Planning Areas (PAs) 2 and 3 on minimum lot sizes ranging from 3,000-4,000 s.f. with an overall density of 6.9 du/ac. Planning Area 2 would accommodate a total of 132 MHDR dwelling units on 21.56 acres at an overall density of 6.1 du/ac, and Planning Area 3 would accommodate a total of 175 dwelling units on 23.20 acres at an overall density of 7.5 du/ac. Access to PA 2 would be accommodated via Streets A, B, C, and G, while access to PA 3 would be provided from Keller Road via Streets A and B.

- **High Density Residential (HDR):** SP 380A1 would allow for a total of 310 dwelling units on approximately 26.71 acres within Planning Areas 4 and 5, resulting in an overall density of approximately11.6 du/ac. Planning Area 4 would accommodate 230 HDR units on 19.42 acres at an overall density of 11.8 du/ac, which are anticipated to consist of higher-density residential products such as small-lot or attached homes. Planning Area 5 would include 80 HDR dwelling units on 7.29 acres at an overall density of 11.0 du/ac, and these units are intended to be age-restricted for older adults, likely configured in a campus-style layout with shared amenities. Access to Planning Areas 4 and 5 would be provided from Keller Road via proposed Street B .

- **Open Space – Recreation (OS-R):** SP 380A1 would be designated for OS-R and would consist of a proposed community park on 8.97 acres within proposed PA 8. The proposed community park is conceptually designed to include a baseball diamond, basketball courts, pickleball courts, a tot lot, a concession stand, an open play area, and an off-street parking lot. Access to the community park within PA 8 would be provided from Keller Road via proposed Streets B, C, F, and L.

- **Open Space – Conservation Habitat (OS-CH):** SP 380A1 would preserve approximately 61.42 acres of existing natural hillside areas within Planning Area (PA) 9, located in the northern portion of the Project site, for long-term conservation purposes consistent with the Western Riverside County Multiple Species Habitat Conservation

Plan (MSHCP). No development is proposed within PA 9, and this area would remain in its natural condition to support habitat preservation and wildlife movement.

- **Open Space – Water (OS-W):** SP 380A1 would designate a total of approximately 16.02 acres across Planning Areas (PAs) 10, 11, and 12 for stormwater management purposes. These areas would include detention basins designed to capture, temporarily detain, and convey stormwater runoff generated by the Project. In addition to flood control, the basins would provide water quality treatment functions, including the removal of water-borne pollutants, prior to discharge from the Project site.

- **Open Space – Conservation (OS-C):** SP 380A1 would designate approximately 3.49 acres within PAs 6 and 7 as OS-C. This area consists of narrow, irregularly shaped slivers of land intended to remain undeveloped to serve as visual buffers, natural landform preservation, and transitional zones between residential and open space uses. The OS-C designation ensures that these areas are maintained in a permanent open condition, supporting community aesthetics, passive environmental functions, and consistency with applicable land use policies. No development or active recreational use is proposed within PAs 6 or 7.

- **Circulation:** SP 380A1 would accommodate the construction of approximately 18.64 acres of roadway infrastructure, including Right-of-Way (ROW) dedications for Winchester Road, Keller Road, Pourroy Road, and an internal network of local streets. Internal circulation would be provided via Streets A, B, C, F, G, I, and L, which would connect individual planning areas to the external roadway network, while Old Keller Road would continue to provide vehicular access to the existing residences located south of the Project site. The circulation system has been designed to provide safe and efficient access for vehicles, pedestrians, and emergency services throughout the Project site.

Proposed Circulation Plan

Proposed SP 380A1 includes a Roadway Master Plan. Primary vehicular access to the Project site would be provided via Keller Road along the southern boundary and Winchester Road (State Route 79) along the eastern boundary. Internal access would be accommodated by a network of proposed streets, including Streets A, B, C, F, G, I, and L, which would provide access to individual residential neighborhoods and the community park. These streets would connect to external roadways and form the backbone of the Project's internal circulation system. The Roadway Master Plan includes a hierarchical network of internal streets designed to facilitate efficient circulation while promoting safety and walkability. Intersections and roadway alignments have been planned to balance vehicular access with neighborhood livability, using standard local street configurations that provide access to each Planning Area. All offsite roads (public roads) identified in the County of Riverside Circulation Element are Covered Roads under the MSHCP.

- **Winchester Road/Highway 79 – Modified Expressway (½-Width 92'-122' ROW, 184'-220' Total ROW)**: Winchester Road/Highway 79 is classified in the County General Plan and the Southwest Area Plan (SWAP) as a "Modified Expressway" with an

ultimate right-of-way (ROW) width ranging from 184 to 220 feet. Two roadway cross-sections are proposed for Winchester Road along the Project frontage. For the segment between Keller Road and 0.5-mile north of Keller Road, Winchester Road would be improved along the western side of the roadway to include up to 29 feet of paving, and up to 55 feet of landscaped parkway, which would include a 3-foot curb-adjacent landscaped parkway, an 8-foot-wide curb-separated sidewalk, and up to 44 feet of landscaped parkway at the edge of the right-of-way, along with the dedication of 10 feet of right-of-way. For the segment of Winchester Road from approximately 0.5-mile north of Keller Road to the northern Project boundary, the western side of the roadway would be improved to include up to 55 feet of curb-adjacent landscaped parkway and up to 20 feet of additional paving. Ultimate improvements to the easterly side of both portions of Winchester Road would be completed in the future by others.

- **Keller Road – Modified Secondary Highway (100'-112' ROW):** Keller Road is classified by the County General Plan and SWAP as a "Secondary Highway" with an ultimate right-of-way (ROW) width of 100 to 112 feet. As part of the Project, Keller Road would be slightly realigned to the north through the southern portion of the site to create a 90-degree intersection with Winchester Road/Highway 79. A ROW dedication of 100 feet would be provided along the segment that traverses the Project site. Improvements would include 64 feet of paving (including a 12-foot-wide painted median) and 18-foot-wide parkways on both sides. The northern parkway would include a 10-foot-wide curb-separated meandering concrete trail, while the southern parkway would include a 5-foot-wide curb-separated sidewalk. At the intersection with Winchester Road, the ROW may increase to 112 feet and consist of up to 76 feet of paving to accommodate turn lanes. In addition, as part of the Project, the portion of Keller Road between Leon Road and the western Project boundary would be improved to include up to 28 feet of travel lanes within the existing ROW.

- **Collector Road (74' ROW) – Street B:** Street B would be classified as a Collector Road and would serve as the primary north–south circulation route through the Project site. A total of 74 feet of right-of-way would be dedicated, and this roadway would be improved to include 44 feet of paving (curb-to-curb) and 15-foot-wide parkways on both sides, each with a 5-foot-wide curb-separated sidewalk. Street B would provide access to Planning Areas 2, 3, 4, 5, 8, and 11.

- **Modified Enhanced Local Roads (59' ROW) – Streets C, F, and L:** Proposed Streets C, F, and L are proposed as Modified Enhanced Local Roads and would provide enhanced pedestrian access to the proposed park site within PA 8. These roadways would be improved to include 40 feet of travel lanes, an 11-foot-wide curb-adjacent sidewalk for the side of the road abutting the park, and an 8-foot-wide parkway along the other side of the roadway that would include a five-foot-wide curb-adjacent sidewalk.

- **Modified Collector Road (59' ROW) – Old Keller Road**: Old Keller Road would be slightly reconfigured to accommodate the proposed realignment of Keller Road through the Project site and to ensure continued vehicular access to the existing residences along the southern side of the existing Keller Road. As part of the Project, the northerly portion

of the Old Keller right-of-way (29 feet) would be vacated and reduced to 22 feet, and would include 14-feet of paving (curb to curb) north of the centerline and an 8-foot-wide shoulder at the edge of the right-of-way. The southerly portion of the right-of-way (44 feet) would be reduced to 37 feet, and would include 22 feet of paving (curb to curb) south of the centerline and a6-foot-wide curb-adjacent sidewalk within a 15-foot-wide parkway.

- **Local Streets (56' ROW) – Streets A, C, G, and Internal Local Streets:** Streets A, C, G, and all other internal local streets would be improved as part of the Project to provide internal connectivity within the site. As part of the Project, a total of 40 feet of paved travel lands would be accommodated, along with 8-foot-wide parkways along both sides of the road that would include five-foot-wide curb-adjacent sidewalks.

- **Alleys (30' ROW)**: It is anticipated that the HDR units within PA 4 would be constructed in a configuration that would include alleys. These alleys would consist of a minimum of 30 feet in width, with minimum 5-foot-wide curb-adjacent sidewalks along each sides of the alleyway.

Conceptual Pedestrian Circulation Plan

Proposed SP 380A1 includes a Conceptual Pedestrian Circulation Plan. Pedestrian circulation within the Project site would be accommodated through a network of sidewalks and multi-use trails. Sidewalks throughout the Project would range in width from 5 feet to 11 feet, depending on street type and context. A 10-foot-wide meandering concrete trail would be provided along the north side of Keller Road. The pedestrian circulation system has been designed to provide connectivity between residential neighborhoods and to the central park in PA 8.

Drainage and Water Quality Improvements

The Project site is located within the Santa Margarita Watershed Management Area of Riverside County, with runoff in the Project area ultimately being discharged into the Santa Margarita River in Temecula. The natural topography of the Project site drains from the northwest to southeast. In addition, the Project site is tributary to off-site drainages, including off-site areas west of Pourroy Road, south of (Old) Keller Road, and along Winchester Road. A major drainage course, west of Pourroy Road, conveys a significant tributary area runoff from the northern and western hillside elevations, and continues southeast into Winchester Road via several Caltrans RCP culverts. Existing drainage water courses also flow offsite from the northern and eastern hillside elevations through several existing Caltrans reinforced concrete pipe (RCP) culvert-under-crossings along Winchester Road (SR-79).

A comprehensive storm drain system is proposed as part of the Project that has been designed to convey the 100-year storm event under the ultimate buildout condition. As shown, runoff generated on site and that is tributary to the site would be conveyed via a series of storm drain lines ranging in size from 18 to 38 inches that ultimately would discharge into proposed water quality management and detention and debris basins in Planning Areas 5, 10, 11, and 12, which ultimately would discharge flows into their respective existing pre-development water courses.

In the northeastern portion of the site, drainage flows from PA 5 would be treated and detained within a proposed water quality basin that would be constructed within PA 5. Hillside storm flows from the open space proposed within PA 8 would be intercepted and conveyed through a bypass storm drain line directly into a basin in PA 11, which also would treat and detain storm flows and run-off from portions of PA 2. Additionally, flows from the park in Planning Area 8 would be treated via landscaping and remaining flows would be conveyed into the basin proposed in PA 11. Outflows from the basins in PA 5 and PA 11 would be conveyed through 24-inch storm drain lines to three points of connection with the existing Caltrans 24-inch Reinforced Concrete Pipe (RCP) culverts under Winchester Road, and ultimately would be discharged off-site to a major natural drainage course southeast of the Project site.

The basin proposed within PA 12 at the southern edge of the Project site would capture flows from PAs 1 through 4, where the flows would then be conveyed south via a 30-inch storm drain line under Old Keller Road, and ultimately would discharge via Option A or Option B into an existing natural drainage course located south of Old Keller Road.

A debris basin within PA 10 would capture offsite flows and sediment from the north and west. During low rainfall events, a 36-inch storm drain would capture the flows from the debris basin in PA 10 and would convey these flows under Keller Road, and then back into the natural drainage course south of Old Keller Road. Additionally, flows from Keller Road and Pourroy Road would be conveyed through a 24-inch storm drain line to a point of connection at the 36-inch storm drain line, which would convey flows easterly to a 30-inch storm drain line where one of two options may occur (Options A and B). Under Option A, a 30-inch storm drain line would extend east under Old Keller Road and then south within an easement along the private property's eastern property line, which would then convey flows into the natural drainage course south of Old Keller Road. Under Option B, a 30-inch storm drain line would extend east under Old Keller Road, and then south within an easement along the private property's western property line, which would then convey flows to the natural drainage course south of Old Keller Road.

Finally, the natural drainage course receiving flows from PA 10 and PA 12 would be preserved in its predevelopment alignment until the drainage course discharges into the existing 60-inch RCP under Winchester Road, which would then conveys flows into a major natural drainage course southeast of the Project site.

Water and Sewer Plan

Potable water service for the Project would be provided by the Eastern Municipal Water District (EMWD) through the 1627 Pressure Zone water system. As shown on Figure 3-7, *Conceptual Domestic Water Plan,* existing 18-inch and 12-inch water transmission lines occur within Ruft Road and Pourroy Road, respectively, while an additional 12-inch water transmission line occurs within Keller Road approximately 0.1-mile west of its intersection with Washington Street. As part of the Project, a new 24-inch water line would be installed within Pourroy Road between Ruft Road and Keller Road, while a 30-inch water main is proposed be installed in Keller Road between Pourroy Road and the existing point of connection within Keller Road near Washington Street. Water service on site would be provided by a series of 8- and 12-inch water lines that

would extend within the major and local roadways on site. The onsite system would serve domestic water needs, landscape irrigation (including for individual homeowners and common areas), and fire protection demands.

A recycled water system is proposed to provide irrigation for the Project's park, common area landscaping, manufactured slopes, and detention basin areas. Recycled water would be supplied by Eastern Municipal Water District (EMWD) via connection to an existing 24-inch recycled water line located in Leon Road, approximately one mile west of the Project site. A 12-inch recycled water main would be installed within Keller Road between Leon Road and the eastern side of the Keller Road/Winchester Road intersection. The on-site recycled water system would connect to this proposed recycled water main within Keller Road, and a series of on-site 8-inch recycled water lines would be extended throughout the Project site to provide a looped distribution system.

Sewer service for the proposed Project also would be provided by the EMWD. Under existing condition there is an 18-inch sewer main located within Abelia Street immediately southwest of its intersection with Winchester Road. As part of the Project, a series of 8- to 12-inch sewer lines would be installed within the on-site roadways, which would convey sewer flows westerly within Keller Road and southerly within Pourroy Road to the existing point of connection within Abelia Street.

Grading Plan

Development of the Project would involve re-contouring the pre-development terrain of the site to create building pads, roads, and infrastructure, sloping from the higher northerly elevations toward the lower southern and southeastern portions of the site. Grading would consist of standard residential grading for the single-family and higher-density residential neighborhoods, construction of water quality and stormwater detention basins in PAs 10, 11, and 12, and minor contouring for the development of recreational amenities in PA 8. The grading generally would follow existing drainage patterns and is designed to achieve a nearly balanced condition, with rough cut and fill quantities estimated at approximately 1.2 million cubic yards (cy). It is anticipated that earthwork would be balanced on site with no import or export of soil required.

It is anticipated that grading of the Project site would occur in two separate phases. The first phase of grading would include the southern and central portions of the Project site, including portions of the residential Planning Areas 1, 3, and 4; the Open space area in Planning Area 6; the landscaped buffer in Planning Area 7; the debris basin in Planning Area 10; the WQMP basins in Planning Area 11 and Planning Area 12; and grading to accommodate Keller Road, Street "B", Street "F", a segment of Street "A", and internal neighborhood roads. The second phase of grading would include the northern portion of the Project site, including residential Planning Areas 2 and 5 and a portion of residential Planning Areas 1, 3, and 4; the public park in Planning Area 8; and roadways including Old Keller Road, Street "C", Street "G", Street "I", Street "L", internal neighborhood roads, and a segment of Street "A."

Fuel Modification Plan

SP 380A1 includes a Fuel Modification Plan (FMP) that has been reviewed and approved by the Riverside County Fire Department. The FMP includes a series of fuel modification zones throughout the Project site intended to reduce wildfire risk and enhance defensible space in compliance with California Fire Code and Riverside County Fire Department standards. Fuel modification zones within the Project site would occur within all residential Planning Areas, as well as in Planning Areas 10, 11, and 12 where they abut residential development areas. Fuel modification area planting would be in accordance with the Riverside County Fire Department standards and requirements and would consist of appropriate plant materials and irrigation treatments. Lots that are within Planning Areas adjacent to open space would be developed in accordance with the FMP to provide adequate buffering and fuel modification zones consistent with Riverside County Fire Department standards. Fuel modification zones would be provided where the conditions outlined below exist, as per Riverside County Fire Department standards.

In order to adequately protect structures adjacent to open space areas and the MSHCP-dedicated hillsides, sufficient "defensible space" must be accommodated between the dwelling and the fuel associated with the open land. A total of 100 feet of fuel modification treatment would be required via Fuel Modification Zones 1A, 1B, 2A, 2B, and 2C. In those areas where 100 feet of fuel modification zones cannot be achieved due to open space protection issues or property boundary limitations, alternative protection measures would be implemented to help protect the homes from wildfire. These protection measures would be based on worst case scenarios (slope, wind, native vegetation, fuel moisture, humidity, etc.) and fire fuel modeling. The affected lots may include measures consist of a combination of fuel modification and required ignition resistant construction, as well as additional construction feature requirements. Three separate Fuel Modification Zones (FMZ) within the Project site. All FMZ distances are measured horizontally. Fuel Modification Zones 1A, 1B, 1C, 2A, 2B, and 2C would be sufficient to mitigate direct flame contact and the radiant heat effects of a worst-case wildland fire with 5.3-foot to 8.5-foot flame lengths. A description of the proposed FMZs is provided below.

- **Fuel Modification Zone 1A:** Zone 1A would consist of a homeowner-maintained zone within individual lots and shall be free of all combustible construction and materials. Zone 1A generally would be located within the rear yard and side yards of the homes within all residential Planning Areas. It would consist of an irrigated zone surrounding the building pad and would be measured from the exterior walls of the building or from the most distal point of a combustible projection or an accessory structure within 10 feet of the main building to the lot boundary. This distance area would provide the best protection against the high radiant heat produced by wildfire and also would provide a generally open area in which fire suppression forces can operate during wildfire events. This zone includes a level or level-graded area around the structure and minimum 10-foot setbacks between buildings and trees. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Fuel Modification Zone 1B:** Fuel Modification Zone 1B would be maintained by the Homeowner's Association (HOA), and would consist of planted and maintained common areas, as well as irrigated and fire-resistant landscaping and manufactured slopes that

would extend from residential property lines. Zone 1B generally would be located in landscaping areas outside of homeowner lots, including in Planning Areas 1, 2, and 5, starting from the lot parcel line extending 30 feet outwards, within parks, roadway landscaping, and manufactured slopes. This zone would be planted with fire resistant shrubs, trees, and groundcovers and would be irrigated year-round. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Fuel Modification Zone 1C:** Fuel Modification Zone 1C would be maintained by the Valley-Wide Recreation and Park District or the County of Riverside. Zone 1C generally would be located within and around the basins in Planning Areas 10, 11, and 12. This zone would be planted with fire resistant shrubs, trees, and groundcovers and shall be irrigated year-round. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Fuel Modification Zone 2A:** Fuel Modification Zone 2A would be maintained by the HOA or other similar entity and would consist of thinning treatment to ensure that areas in this zone would contain 50% open space and are free of any dead and dying combustible vegetation. Zone 2A generally would begin at the outer edge of Zones 1A, 1B, and 1C landscaping and would include Planning Areas 1, 2, 5, and 7. This zone would consist of a non-irrigated area that must be maintained yearly prior to fire season to clear out any dead, dying, and invasive material. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Fuel Modification Zone 2B:** Fuel Modification Zone 2B would be maintained by the Valley-Wide Recreation and Park District or the County of Riverside. Zone 2B generally would be located within the Park in Planning Area 8. This zone would be planted with fire resistant shrubs, trees, and groundcovers and would be irrigated year-round. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Fuel Modification Zone 2C:** Fuel Modification Zone 2C would be maintained by the Valley-Wide Recreation and Park District. Zone 2C generally would be located within and around the basin in Planning Area 11. The outer edge of this zone would be 100 feet from any structure. This zone would be planted with fire resistant shrubs, trees, and groundcovers and shall be irrigated year-round. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

- **Roadside Fuel Treatment:** Roadside fuel treatment would be managed by the HOA, and includes all public roads, which shall have a minimum of 20 feet of combustible vegetation clearance on each side of the roadway. Sidewalks and related non-combustible improvements are encouraged in fuel treatment areas to enhance the level of protection. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

Additional Building Features: Additional building features are required for a few homes within residential Planning Areas 1 and 2, because they do not meet the minimum 100-foot fuel

treatment setback. For any home or building that has reduced fuel modification distances, a separate fencing plan would be required and may require solid non-combustible walls to limit any actual radiant fire that may start in the conservation habitat area. Homes on these lots would be required to be consistent with the recommendations outlined in the Project's Fire Protection Plan. Landscaping in this zone would be restricted in accordance with the proposed SP00380A01.

1.5 Relationship of the Project to the MSHCP

1.5.1 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 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); animal 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, southwestern willow flycatcher, western yellow-billed cuckoo, 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 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.

1.5.2 Relationship of the Project to the MSHCP

The onsite Project is located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP and is included within the MSHCP Criteria Area. Portions of the offsite Project are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP.

Specifically, the onsite Project falls within all or portions of Cell Group U, which includes Criteria Cells 5067, 5070, 5074 as well as Criteria Cells 5169, 5173, 5175, and 5275. The offsite Project is also partially located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5173, 5174, 5175, 5275, and 5279 [Exhibit 4A – MSHCP Overlay Map]. Portions of the Project site are located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), Narrow Endemic Plant Species Survey Area (NEPSSA), and Burrowing Owl (*Athene cunicularia*) Survey Area [Exhibit 4B – MSHCP Survey Areas Map]. Table 1-3 below depicts onsite and offsite acreage per criteria cell/cell group and acreage outside of a criteria cell.

Table 1-3. Criteria Cell Acreages for the Onsite and Offsite Project

Criteria Cell Number	Criteria Cell		Outside Criteria Cell		Total Project (acres)
	Onsite	Offsite	Onsite	Offsite	
5067	0.22	0.01	0.00	0.00	0.23
5070	0.90	0.00	0.00	0.00	0.90
5074	0.01	0.00	0.00	0.00	0.01
5169	33.28	9.86	0.00	0.00	43.13
5173	159.07	2.05	0.00	0.00	161.12
5174	0.00	3.11	0.00	0.00	3.11
5175	1.84	5.73	0.00	0.00	7.56
5275	0.60	6.03	0.00	0.00	6.63
5279	0.00	0.30	0.00	0.00	0.30
No Cell Number	0.00	0.00	0.02	4.89	4.91
Total	**195.92**	**27.08**	**0.02**	**4.89**	**227.89**

*Sum of individual parts may not equal total due to rounding error.

Subunit 5, French Valley/Lower Sedco Hills

The target acreage range for Additional Reserve Lands within Subunit 5 is 4,360 to 7,395 acres of land. The cell groups within Subunit 5 include: Cell Groups U, V, W, X, Y, Z, A', B', C', D', E', F', G', H' and I'.

Criteria Cells not in a Cell Group in Subunit 5 include: 5163, 5169, 5173, 5174, 5175, 5275, 5279, 5372, 5376, 5378, 5460, 5477, 5479, 5572, 5575, 5669, 5677, 5778, 5879, 5979, 5982, 5987, 6075, 6180, 6182, 6185, 6297, 6299, 6407, 6409 and 6525.

Planning species for this subunit include:

- Bell's sage sparrow;
- California horned lark;
- Coastal California gnatcatcher;
- Swainson's hawk;
- Grasshopper sparrow;
- Southern California rufous-crowned sparrow;
- Quino checkerspot butterfly;
- Bobcat;
- Los Angeles pocket mouse;
- Western pond turtle;
- Long-spined spine flower;
- Munz's onion; and
- Palmer's grapplinghook.

Biological issues and considerations for this subunit include:

- Conserve a large block of Habitat generally east of I-215 and south of Scott Road for narrow endemic species.
- Provide connection to the Southwestern Riverside County Multi Species Reserve.
- Conserve clay soils supporting long-spined spine flower, Munz's onion and Palmer's grapplinghook.
- Maintain Core and Linkage Habitat for bobcat.
- Determine presence of potential Core Area for Los Angeles pocket mouse along Warm Springs Creek.
- Maintain Core and Linkage Habitat for Quino checkerspot butterfly.
- Maintain Core Area for western pond turtle.
- Maintain Core Area for Riverside fairy shrimp.

Onsite Project

Cell Group U, Criteria Cell 5067

Approximately 0.22 acre of the onsite Project is within Criteria Cell 5067 and Cell Group U. Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell #5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell #5169 and #5175 both also to the south, to chaparral habitat and agricultural land proposed for conservation in Cell #5173 also to the

south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65%-75% of the Cell Group focusing on the eastern portion of the Cell Group.

Cell Group U, Criteria Cell 5070

Approximately 0.90 acre of the onsite Project is within Criteria Cell 5070 and Cell Group U. Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell #5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell #5169 and #5175 both also to the south, to chaparral habitat and agricultural land proposed for conservation in Cell #5173 also to the south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65%-75% of the Cell Group focusing on the eastern portion of the Cell Group.

Cell Group U, Criteria Cell 5074

Approximately 0.01 acre of the onsite Project is within Criteria Cell 5074 and Cell Group U. Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell #5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell #5169 and #5175 both also to the south, to chaparral habitat and agricultural land proposed for conservation in Cell #5173 also to the south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65%-75% of the Cell Group focusing on the eastern portion of the Cell Group.

Criteria Cell 5169

Approximately 33.28 acres of the onsite Project is within Criteria Cell 5169. Conservation within Criteria Cell 5169 will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland, chaparral and coastal sage scrub habitat. Areas conserved within this Cell will be connected to chaparral habitat and agricultural land proposed for conservation in Cell #5173 to the west, to chaparral, coastal sage scrub and grassland habitat proposed for conservation in Cell Group U to the north, and to grassland and coastal sage scrub habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell will range from 25%-35% of the Cell focusing on the northern portion of the Cell.

Criteria Cell 5173

Approximately 159.07 acres of the onsite Project is within Criteria Cell 5173. Conservation within Criteria Cell 5173 will also contribute to assembly of Proposed Constrained Linkage 17.

Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell #5175 to the west, to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group U to the north, and to chaparral habitat proposed for conservation in Cell #5169 to the east. Conservation within this Cell will range from 20%-30% of the Cell focusing on the northern portion of the Cell.

Criteria Cell 5175

Approximately 1.84 acres of the onsite Project is within Criteria Cell 5175. Conservation within this Cell will focus on grassland and chaparral habitat. Areas conserved within this Cell will be connected to chaparral habitat proposed for conservation in Cell 5174 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to agricultural land proposed for conservation in Cell 5173 to the east. Conservation within this Cell will range from 35% to 45% of the Cell, focusing on the northern portion of the Cell.

Criteria Cell 5275

Approximately 0.60 acre of the onsite Project is within Criteria Cell 5275. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 18. Conservation within this Cell will focus on riparian scrub, woodland and forest habitat and adjacent agricultural land. Areas conserved within this Cell will be connected to riparian scrub, woodland and forest habitat and agricultural land proposed for conservation in Cell #5376 to the south and to agricultural land proposed for conservation in Cell #5279 to the east. Conservation within this Cell will range from 10%-20% of the Cell focusing on the southern portion of the Cell.

Offsite Project

Criteria Cell 5067

Approximately 0.01 acre of the offsite Project is within Criteria Cell 5067 and Cell Group U. Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell #5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell #5169 and #5175 both also to the south, to chaparral habitat and agricultural land proposed for conservation in Cell #5173 also to the south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65%-75% of the Cell Group focusing on the eastern portion of the Cell Group.

Criteria Cell 5169

Approximately 9.86 acres of the offsite Project is within Criteria Cell 5169. Conservation within Criteria Cell 5169 will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland, chaparral and coastal sage scrub habitat.

Areas conserved within this Cell will be connected to chaparral habitat and agricultural land proposed for conservation in Cell #5173 to the west, to chaparral, coastal sage scrub and grassland habitat proposed for conservation in Cell Group U to the north, and to grassland and coastal sage scrub habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell will range from 25%-35% of the Cell focusing on the northern portion of the Cell.

Criteria Cell 5173

Approximately 2.05 acres of the offsite Project is within Criteria Cell 5173. Conservation within Criteria Cell 5173 will also contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell #5175 to the west, to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group U to the north, and to chaparral habitat proposed for conservation in Cell #5169 to the east. Conservation within this Cell will range from 20%-30% of the Cell focusing on the northern portion of the Cell.

Criteria Cell 5174

Approximately 3.11 acres of the offsite Project is within Criteria Cell 5174. Conservation within Criteria Cell 5174. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to chaparral and grassland habitat proposed for conservation in Cell Group U to the north, to chaparral habitat proposed for conservation in Cell #5175 to the east and to grassland and adjacent habitat proposed for conservation in Cell Group B in the Sun City/Menifee Area Plan to the west. Conservation within this Cell will range from 35%-45% of the Cell focusing on the northern portion of the Cell.

Criteria Cell 5175

Approximately 5.73 acres of the offsite Project is within Criteria Cell 5175. Conservation within this Cell will focus on grassland and chaparral habitat. Areas conserved within this Cell will be connected to chaparral habitat proposed for conservation in Cell 5174 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to agricultural land proposed for conservation in Cell 5173 to the east. Conservation within this Cell will range from 35% to 45% of the Cell, focusing on the northern portion of the Cell.

Criteria Cell 5275

Approximately 6.03 acres of the offsite Project is within Criteria Cell 5275. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 18. Conservation within this Cell will focus on riparian scrub, woodland and forest habitat and adjacent agricultural land. Areas conserved within this Cell will be connected to riparian scrub, woodland and forest habitat and agricultural land proposed for conservation in Cell #5376 to the south and to agricultural

land proposed for conservation in Cell #5279 to the east. Conservation within this Cell will range from 10%-20% of the Cell focusing on the southern portion of the Cell.

Criteria Cell 5279

Approximately 0.30 acre of the offsite Project is within Criteria Cell 5279. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 18. Conservation within this Cell will focus on agricultural land. Areas conserved within this Cell will be connected to agricultural land proposed for conservation in Cell #5275 to the west and in Cell #5372 to the south. Conservation within this Cell will range from 5%-15% of the Cell focusing on the southwestern portion of the Cell.

MSHCP Survey Areas

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.

A portion of the onsite and offsite Project occurs in the CAPSSA and NEPSSA. Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri),* little mousetail (*Myosurus minimus* ssp. *apus*), and mud nama (*Nama stenocarpa*). Pursuant to the MSHCP, the following NEPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

A portion of the onsite and offsite Project is within the MSHCP Burrowing Owl Survey Area. The Project site is not within the MSHCP Mammalian, Amphibian, or the Delhi Sands flower-loving fly survey area.

Joint Project Review (JPR)/Habitat Acquisition and Negotiation Strategy (HANS)

The onsite and offsite project development footprint was determined to be consistent with the MSHCP as part of JPR 09-12-14-01, dated February 25, 2010, and amended July 12, 2024. The JPR Findings referenced a development footprint of 227.9 acres. The JPR also required the conservation of 61.4 acres of land within the northern portion of the onsite Project. A HANS

determination letter, HANS 1995, was also approved for the Project. This letter determined that the RCA concurred with the conservation documented in the JPR. The 2024 amended JPR approval is attached as Appendix C.

2.0 METHODOLOGY

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

- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the Corps, Regional Board, and/or CDFW;
- Mapping of MSHCP Riparian/Riverine Areas;
- Performance of vegetation mapping for the Project; and
- Performance of habitat assessments and site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA and the MSHCP.
- Performance of focused surveys for rare plants; and
- Performance of focused surveys for burrowing owl;

The focus of the biological surveys was determined through initial site reconnaissance, a review of the California Natural Diversity Database (CNDDB) (CDFW 2021, 2025), CNPS 9th edition online inventory (CNPS 2021, 2025), Natural Resource Conservation Service soil data (NRCS 2021), Information for Planning and Consultation (IPAC) database (USFWS 2021, 2025), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project were conducted on foot in the proposed development areas for each target plant or animal species identified below. Table 2-1 provides a summary list of survey dates, survey types, and personnel.

Table 2-1. Summary of Biological Surveys for the Onsite and Offsite Project

Survey Type	2021 Survey Dates	2025 Survey Dates
Focused Burrowing Owl Surveys	3/30, 4/16, 4/20, 4/22, 4/29, 5/11, 5/14, 5/18, 7/9, 7/29, 8/12, 8/18	5/27, 6/10, 6/25, 7/8
Rare Plant Habitat Assessment and Surveys	3/16, 5/5	2/21, 4/17, 5/22
Vegetation Mapping	9/14, 10/27	2/21
General Biological Survey	3/16	2/21
Focused Crotch's Bumble Bee Surveys	–	3/3, 3/27, 4/29
Evaluation of Riparian/Riverine Areas	2/3, 7/14	–
Evaluation of Vernal and/or Seasonal Pools	2/3	–
Delineation of Federal and State Jurisdictional Waters	2/3, 7/14	–

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

- Listing through the federal and/or State ESA; and/or
- CNPS 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 the federal and/or State ESA; and/or
- Designation by the State as a Species of Special Concern (SSC) or Fully Protected (FP) species.

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

- Riparian/riverine habitat; and/or
- Wetland/vernal pool habitat.

2.1 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the onsite and offsite Project, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project; (3) general field reconnaissance survey(s); (4) vegetation mapping according to Holland; and (5) habitat assessments for special-status plants (including those with MSHCP requirements).

2.1.1 Literature Search

Prior to conducting fieldwork and for each subsequent year in which fieldwork was performed, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- CNPS, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v-9.5) (CNPS 2021, 2025);
- CNDDB for the USGS 7.5' quadrangle(s): Winchester and surrounding quadrangles (CDFW 2021, 2025).
- USFWS IPaC database (USFWS 2021, 2025).

2.1.2 Vegetation Mapping

The MSHCP utilizes vegetation mapping for the overall Plan area derived from baseline mapping conducted in 1995, with updates provided 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 onsite and offsite Project were mapped according to Holland (1986) in 2021. Because the original Project approvals and Biological Technical Report included Holland-based vegetation mapping, the Holland system was again used for the 2025 mapping for consistency, with vegetation communities also crosswalked to the MCV. The 2021 vegetation mapping was reviewed in the field by Ian Rhodes and Brinna Lee on February 21, 2025, for the purpose of confirming the 2021 mapping and crosswalking the Holland-based mapping to the List of Vegetation Alliances and Associations (or Natural Communities List, CDFW 2025), which is based on MCVII.

During field surveys in 2025, the surveying biologists utilized ArcGIS Field Maps to review the current conditions for each vegetation community mapped in 2021. The field biologists recorded the species dominance (relative and absolute cover) and species composition using a custom data dictionary with data inputs for a maximum of four dominant species and their associated relative/absolute percentage cover estimates. When possible, the estimates of relative and absolute cover for each dominant species made by two field biologists were averaged. Non-dominant plant species within each polygon were also recorded.

Following the 2025 review fieldwork, the field biologists analyzed the recorded species dominance and composition data pursuant to MCV membership rules and, in the context of the vegetation communities, assigned the appropriate MCV vegetation alliances to each recorded species suite for the polygons mapped in 2021, crosswalking those communities to the Holland communities mapped in 2021. When appropriate, vegetation types were classified at the association level when the dominant species is consistent with a named association. When evaluating for the presence of special-status vegetation communities, in addition to site-specific mapping, the CNDDB was reviewed for any sensitive vegetation communities for which records occur within the Project site.

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

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the onsite and offsite Project. The CNDDB was initially consulted in 2021 and again in 2025 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 (2021, 2025) and the MSHCP (Dudek 2003).

Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri),* little mousetail (*Myosurus minimus* ssp. *apus*), and mud nama (*Nama stenocarpa*). Additionally, the following NEPSSA species must be evaluated through habitat assessments and focused surveys

(if suitable habitat is present): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project 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; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project, if applicable.

2.1.4 Botanical Surveys

GLA biologists Jillian Stephens, April Nakagawa, and Velvet Park visited the site on March 16, 2021, and May 5, 2021, to conduct a general plant survey and a habitat assessment for special-status plants. Updated focused plant surveys were conducted in 2025 by GLA biologists Ian Rhodes and Brinna Lee on February 21, April 17, and May 22. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFW 2018, CNPS 2001, USFWS 2000). Surveys were conducted during the appropriate blooming period for special-status plants including NEPSSA and CAPSSA species that have potential to occur. 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. Survey(s) were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field survey(s) 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 Jepson Flora Project (2021) and Munz (1974) conventions.

2.2 Wildlife Resources

Wildlife species were evaluated and detected during the field survey(s) by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire onsite and offsite Project by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit(s). A complete list of wildlife species observed within the onsite and offsite Project 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 8th Edition, and the American Ornithological Society's Online Check-list of North American Birds (Chesser 2024) for birds. The methodology (including any applicable survey protocols) utilized to conduct general survey(s), habitat assessment(s), and/or focused surveys for special-status animals are included below.

2.2.1 General Surveys

Birds

During general biological and reconnaissance survey(s) within the onsite and offsite Project, birds were identified incidentally within each habitat type. Birds were detected by both direct observation and by vocalizations and were recorded in field notes.

Mammals

During general biological and reconnaissance survey(s) within the onsite and offsite Project, mammals were identified incidentally within each habitat type. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e. tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance survey(s) within the onsite and offsite Project, reptiles and amphibians were identified incidentally within each habitat type. Habitats were examined for diagnostic reptile sign which includes shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed or detected via diagnostic sign were recorded in field notes.

2.2.2 Special-Status Animal Species Evaluated for the Project

A literature search was conducted to obtain a list of special-status wildlife species with the potential to occur within the onsite and offsite Project. Species were evaluated based on three factors, including: 1) species identified by the CNDDB, CNPS, and/or USFWS IPaC as occurring (either currently or historically) on or in the vicinity of the onsite and offsite Project site, 2) species survey areas as identified by the MSHCP for the onsite and offsite Project site; and 3) any other special-status animals that are known to occur within the vicinity of the onsite and offsite Project site, or for which potentially suitable habitat occurs on the onsite and offsite Project site.

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologists Jillian Stephens, April Nakagawa, and Velvet Park conducted a habitat assessment for special-status animal species on March 16, 2021, and May 5, 2021. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the onsite and offsite Project site. Based on observations of vegetation communities and floral resources made during the 2021 assessments and surveys, in 2025, GLA biologists determined that suitable habitat was present for Crotch's bumble bee (*Bombus crotchii*; CBB).

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

Portions of the onsite and offsite Project are located within the MSHCP Survey Area for the burrowing owl. Focused surveys were conducted for the burrowing owl in all suitable habitat areas within the onsite and offsite Project site. Surveys were conducted in 2021 by GLA biologists April Nakagawa, David Smith, and Christopher Waterston, and in 2025 by GLA biologists David Smith, Hannah Craddock, Ian Rhodes, and Zachary Neider. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all potentially suitable burrows. In 2021, the focused burrow survey was conducted on March 30, and in 2025, the focused burrow survey was conducted on May 27, 2025. In 2021, focused burrowing owl surveys were conducted on March 30, April 16, 22, and 29, May 11, 14, and 18, July 9 and 29, and August 12 and 18, and in 2025, focused surveys were conducted on May 27, June 10, June 25, and July 8, 2025. Per the MSHCP burrowing owl survey instructions, burrowing owl survey visits were conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90°F. Additionally, all work was performed more than 5 days after a rain event.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 5 identifies the Burrowing Owl Survey Areas at the onsite and offsite Project. Transects were spaced no further than 30 meters (98.4 feet) apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 320 feet along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. An area associated with the offsite improvements occurred on private lands south of Nuevo Road and access was not feasible, therefore the biologist scanned the area with binoculars. Tables 2-2 and 2-3 summarize the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of 2021 Burrowing Owl Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/30/2021	AN	0600/0900	44/57	1/2	0
4/16/2021	AN	0600/0830	48/56	0/1	0
4/20/2021	AN	0600/0830	55/60	2/4	0
4/22/2021	AN	0600/0830	51/54	6/5	100/100
4/29/2021	AN/CW	0630/0830	53/56	1/2	0
5/11/2021	AN/CW	0615/0815	54/60	2-2	100/90

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
5/14/2021	AN	0615/0820	54/54	4-1	100/100
5/18/2021	AN	0600/0815	55/62	4/2	100/85
7/09/2021	DS	0530/0830	66/77	0-1/0-2	100/0
7/29/2021	DS	0600/0830	73/80	0-1/0-1	100/0
8/12/2021	DS	0610/0820	71/79	0-1/0-1	100/0
8/18/2021	DS	0600/0815	71/73	0-1/0-1	100/100

AN = April Nakagawa, CW = Christopher Waterston, DS = David Smith

Table 2-3. Summary of 2025 Burrowing Owl Surveys

Survey Date	Biologists	Survey Period Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
5/27/2025	HC/ZN	0441/0741	61/68	3/2	100/10
6/10/2025	IR/HC	0438/0738	66/70	2/5	100/0
6/25/2025	DS/IR/ZN	0440/0740	60/60	1/1	100/90
7/8/2025	HC/IR	0445/0745	63/71	1/2	10/0

DS = David Smith, HC = Hannah Craddock, IR = Ian Rhodes, ZN = Zachary Neider

Crotch's Bumble Bee

GLA biologists Stephanie Cashin and Jason Fitzgibbon, as well as Brinna Lee and Ian Rhodes under the supervision of Ms. Cashin and Mr. Fitzgibbon, performed focused foraging surveys for the Crotch's bumble bee within suitable habitat areas within the Project site during the 2025 survey period. Stephanie Cashin holds a Scientific Collecting Permit (SCP) and a Section 2081(a) permit authorizing capture and release of CESA Candidate and/or TVPICP List bumble bees, and Jason Fitzgibbon holds a Section 2081(a) Memorandum of Understanding (MOU) authorizing scientific research methods (e.g., survey, capture, handling) of CESA Candidate Crotch's bumble bee. Surveys generally followed the methods described by CDFW (2023) in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*, which is not a mandated survey protocol, but instead "is intended to assist CDFW staff, project proponents, and consultants in developing, proposing, and evaluating survey protocols and surveys on a project- and site-specific basis." The *Survey Considerations* provides an overview of and incorporates the methodology of established protocols (e.g. the USFWS rusty patched bumble bee protocol [USFWS 2019]), while 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 CBB utilization 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. To increase probability of detecting foraging bumble bees, survey efforts were conducted during peak bloom periods that encompass the (February through March) flight seasons as well as the Colony Active Period (April through August) when queens, daughters, and males are generally active. Surveys were spaced at least two to four weeks apart to take advantage of the different blooming periods of floral resources.

The Project site supports both annual and perennial floral resources with the potential for utilization by CBB. The annual floral resources were generally concentrated in the areas mapped as agriculture and disturbed and included blue dicks (*Dipterostemon capitatus*), arroyo lupine (*Lupinus succulentus*), miniature lupine (*Lupinus bicolor*), chaparral beard tongue (*Keckiella antirrhinoides*), heart-leaved keckiella (*Keckiella cordifolia*) canterbury bells (*Phacelia minor*), and common fiddleneck (*Amsinckia intermedia*). Perennial floral resources included California buckwheat (*Eriogonum fasciculatum*), deerweed (*Acmispon glaber*), and wishbone bush (*Mirabilis laevis*). GLA biologists surveyed the Project site in March and April to capture the peak blooming periods of floral resources.

Because of the patchy distribution of floral resources at the Project site, the locations of which exhibited spatial and temporal variation depending on the particular species in bloom at any given time, each survey visit consisted of large meandering transects incorporating patches of floral resources across the landscape. During these transects, the surveyor spent approximately one person-hour of visual survey effort per three acres of suitable habitat, which comprised multiple separate patches of suitable habitat totaling up to three acres rather than a single three-acre patch. The survey continued at a pace of approximately three acres of suitable habitat/blooming floral resources as long as weather conditions were favorable for *Bombus* activity. Minimal time was spent in lesser quality habitat. All *Bombus* locations were recorded using GPS. In addition, GLA biologists documented any bumble bee activity incidentally observed during all other biological surveys.

Photographic vouchers of *Bombus* species were obtained by photographing bumble bees in situ from multiple angles with a professional level telephoto zoom lens and a camera body with a sensor capable of producing highly detailed images to ensure sufficient detail of identifying characteristics.

Table 2-4. Summary of 2025 Crotch's Bumble Bee Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/3/2025	JF/IR	0758/1111	55/64	3/3	0/0
3/27/2025	SC/BL	0945/1330	56/64	1/3	0/0
4/29/2025	JF	0851/1223	65/76	3/3	0/0

SC = Stephanie Cashin, JF = Jason Fitzgibbon, BL = Brinna Lee, IR = Ian Rhodes

2.3 Jurisdictional Waters

The onsite and offsite Project was delineated by GLA regulatory specialist Lesley Lokovic Gamber to identify the presence and limits of jurisdictional waters, including waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, waters of the State subject to the jurisdiction of the Regional Board only, and streams (including riparian vegetation) subject to the jurisdiction of CDFW. Prior to beginning the field delineation, a 400-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable

channels and/or wetland vegetation, soils, and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the United States Army Corps of Engineers 1987 Wetland Delineation Manual[2] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[3]. 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.[4] The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States[5] in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.[6] While in the field the limits of the OHWM, wetlands (if applicable), and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

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.*

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[2] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[3] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[4] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.
[5] Lichvar, R. W., and S. M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. (http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf).
[6] Curtis, Katherine E. and Robert Lichevar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

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 regulatory specialist Lesley Lokovic Gamber evaluated the onsite and offsite Project on February 3, 2021, and July 14, 2021, for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support 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.

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

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. Sections 1901 and 1913 of the California Fish and Game Code provide 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 as follows: "...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." 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 a Habitat Conservation Plan (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 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 USFWS and 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 such that impacts are considered 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 NEPSSA; Criteria Area Plant Species identified by the CAPSSA; 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 CWA 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA; USFWS would provide an MSHCP consistency review of the proposed project, resulting in a Biological Opinion (BO). The BO 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 5.1.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for 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 regionally important plants, 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. California 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

- SP State Protected
- SSC State Species of Special Concern

California Rare Plant Ranks

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. In a collaborative effort with CDFW's CNDDB project, the CNPS Ninth Edition 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. The six categories of rarity are summarized in Table 3-1.

Table 3-1. CNPS Ranks 1, 2, 3, and 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.

CNPS Rank	Comments
.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 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 those wetlands "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 requires 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

Pursuant to CCR title 23, section 3831(w), the State Water Resources Control Board (State Water Board) has jurisdiction over waters of the United States and waters of the State:

> "Waters of the United States" means surface water and water bodies as defined by EPA regulations (e.g., 40 CFR Section 122.2). All waters of the United States in California are also "waters of the state" (defined by the Porter-Cologne Water Quality Control Act as "any surface water or ground water, including saline waters, within the boundaries of the state." Water Code Section 13050(e)]). Not all waters of the state (e.g., ground water) are waters of the United States.

In addition, State Water Board Resolution 2000-014 approved revised regulations for the 401 Water Quality Certification Program that defined waters of the State:

> …wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (EPA) or the 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.

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,
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]

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[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.

[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

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 California Fish and Game Code (FGC) Division 2, Chapter 6, Sections 1600-1603, 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).

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and/or focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a delineation of all jurisdictional waters and wetlands.

4.1 Existing Conditions

Based on historical aerial photography dating back to the 1960s, the onsite Project has been developed for agricultural uses resulting in extensive ground disturbance, and has been maintained by regular mowing and disking. The topography within the onsite Project slopes downward from the north to south from 1,587 feet to 1,422 feet above mean sea level (AMSL). The offsite Project generally consists of developed roads and disturbed roadside areas.

The onsite Project site exhibits previously graded and highly compacted soils. [Exhibit 6 – Soils Map]. Due to the decades of agriculture practices and disturbances throughout the onsite Project site, the hydrology has been modified. However, the topography conveys storm flows in a general west to east direction, depending on rainfall amounts, through the site towards Warm

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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.

Springs Creek and eventually to Murrieta Creek. The Project contains ephemeral earthen drainages.

4.2 Vegetation/Land Use Mapping

The onsite and offsite Project site supports the following vegetation/land cover types: agriculture, developed, disturbed, disturbed buckwheat scrub, ornamental, and disturbed mulefat scrub. Table 4-1 provides a summary of the vegetation types and their corresponding acreages. A Vegetation/Land Use Map is attached as Exhibit 7. Photographs depicting the Project are shown in Exhibit 8.

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

Vegetation/Land Use Type	Inside Criteria Cell		Outside Criteria Cell		Total Project (Acres)
	Onsite (acres)	Offsite (acres)	Onsite (acres)	Offsite (acres)	
Agriculture	175.23	0	0	0	175.23
Developed	1.44	13.18	0	0.96	15.58
Disturbed	10.47	13.17	0.02	3.73	27.38
Disturbed Buckwheat Scrub	8.64	0.39	0	0.08	9.11
Ornamental	0.08	0.34	0	0.13	0.55
Disturbed Mulefat Scrub	0.05	0	0	0	0.05
Total	**195.92**	**27.08**	**0.02**	**4.89**	**227.89**

*Sum of individual parts may not equal total Project acres due to rounding error.

4.2.1 Agriculture

The Project site supports 175.23 acres in the onsite portion of the Project that consisted of active agriculture lands in 2021. Agriculture practices have been noted on the Project site historically.

In 2025, the active agricultural lands were no longer under cultivation and were instead best characterized as *Hirschfeldia incana – Centaurea melitensis* Herbaceous Semi-Natural Alliance, in accordance with the membership rules of the MCV. The *Hirschfeldia incana – Centaurea melitensis* Herbaceous Semi-Natural Alliance, as it occurs the project site, is dominated by summer mustard and tocalote at a percent cover that meets or exceeds two MCV membership rules: 1) summer mustard comprises a minimum of 50 percent relative cover in the herbaceous layer, and 2) tocalote comprises a minimum of 50 percent relative cover in the herbaceous layer. Co-dominant herbaceous species in order of descending dominance include ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), cheeseweed (*Malva neglecta*), paniculate tarplant (*Deinandra paniculata*), stinknet (*Oncosiphon pilulifer*), red brome (*Bromus rubens*), rattail fescue (*Festuca myuros*), sacred datura (*Datura wrightii*), vinegarweed (*Trichostema lanceolatum*), miniature lupine (*Lupinus bicolor*), Russian thistle (*Salsola tragus*), and black mustard (*Brassica nigra*).

4.2.2 Developed

Approximately 15.58 acres of developed areas (1.44 acres onsite and 14.14 acres offsite) occur in the form of unpaved access roads, paved vehicular roads, and developed infrastructure such as buildings. These areas are routinely maintained and are primarily unvegetated.

4.2.3 Disturbed

Approximately 27.38 acres of disturbed areas occur within the Project. A total of 10.49 acres occur onsite and 16.89 acres occur offsite. The northeastern portion of the onsite Project was burned in a brushfire immediately prior to the 2021 vegetation mapping effort and contained only the charred remains of vegetation.

In 2025, vegetation had regrown in the burned area, and the previously burned area along with the other onsite areas mapped as disturbed are consistent with the *Hirschfeldia incana – Centaurea melitensis* Herbaceous Semi-Natural Alliance, in accordance with the membership rules of the MCV as described above in Section 4.2.1 Agriculture.

A portion of the vegetated roadside areas in the onsite and offsite area mapped as disturbed are best characterized as *Hordeum murinum* Herbaceous Semi-Natural Alliance (Foxtail Barley Grasslands) in accordance with the membership rules of the MCV. The MCV name for this alliance is *Avena spp. – Bromus spp*. Herbaceous Semi-Natural Alliance, but foxtail barley is the dominant species mapped on the project site and the name has been changed to reflect this. The *Hordeum murinum* Herbaceous Semi-Natural Alliance, as it occurs on the project site, is dominated by foxtail barley at a percent cover that meets or exceeds one MCV membership rule: foxtail barley comprises a minimum of 80 percent relative cover in the herbaceous layer. Co-dominant herbaceous species in order of descending dominance include common stork's bill (*Erodium cicutarium*), summer mustard, black mustard, cheeseweed, vinegarweed, miniature lupine, arroyo lupine (*Lupinus succulentus*), and sacred datura.

4.2.4 Disturbed Buckwheat Scrub

Approximately 9.11 acres of disturbed buckwheat scrub occur in patches throughout the Project, with the largest area occurring along the northeastern and northwestern portion of the Project boundary. A total of 8.64 acres of disturbed buckwheat scrub is onsite and a total of 0.47 acre is offsite. While the majority of the Project has been disturbed due to agricultural uses, these areas remained primarily undisturbed due to the steepness of the terrain. These areas are dominated by California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), ripgut brome (*Bromus diandrus*), and red brome (*Bromus madritensis ssp. rubens*).

Of the areas mapped in 2021 as disturbed buckwheat scrub, two MCV alliances, *Eriogonum fasciculatum* Shrubland Alliance (California Buckwheat Scrub) and *Encelia farinosa* Shrubland Alliance (Brittle Bush Scrub) are present in different portions based on MCV membership rules for each alliance.

The *Eriogonum fasciculatum* Shrubland Alliance, as it occurs on the Project site, is dominated by California buckwheat at a percent cover that meets or exceeds one MCV membership rule: California buckwheat comprises a minimum of 50 percent relative cover in the shrub canopy. Co-dominant shrubs in order of descending dominance include cane cholla (*Cylindropuntia bernardina*), wishbone bush (*Mirabilis laevis*), brittle bush, California sagebrush, and coastal prickly pear (*Opuntia littoralis*). In many areas, the interstitial spaces between shrubs are occupied by herbaceous species such as coast morning glory (*Calystegia macrostegia*), climbing milkweed (*Funastrum cynanchoides* var. *hartwegii*), summer mustard, ripgut brome, foxtail barley, tocalote, cheeseweed, stinknet, red brome, rattail fescue, sacred datura, miniature lupine, and Russian thistle.

The *Encelia farinosa* Shrubland Alliance was previously lumped into the Holland classification Disturbed Buckwheat Scrub, but the relative cover of mapped brittle bush in a portion of the mapped Disturbed Buckwheat Scrub satisfies the membership rules for the *Encelia farinosa* Shrubland Alliance. These areas are dominated by brittle bush at a percent cover that meets or exceeds one MCV membership rule: brittle bush comprises a minimum of 1 percent absolute cover in the shrub canopy. Co-dominant shrubs include California buckwheat. In many areas, the interstitial spaces between shrubs are occupied by herbaceous species such as coast morning glory, climbing milkweed, summer mustard, ripgut brome, foxtail barley, tocalote, cheeseweed, stinknet, red brome, rattail fescue, sacred datura, miniature lupine, and Russian thistle.

4.2.5 Disturbed Mulefat Scrub

The Project supports 0.05 acre of disturbed mulefat scrub, all of which is onsite in association with Drainage A. Based on the minimal riparian vegetation and scattered shrubs, this area does not comprise a distinct community, but it was categorized as such for consistency with riparian mapping as part of the jurisdictional delineation. Component species include a single red willow (*Salix laevigata*) and a small number of mulefat (*Baccharis salicifolia*) shrubs, with an understory of non-native grasses and forbs including summer mustard, foxtail barley, and annual brome grasses.

This area of vegetation consists of a few scattered mulefat individuals, and a single red willow tree spread along a drainage segment, and it does not clearly meet the membership rules for any particular riparian MCV alliance. The presence of a single willow without a contiguous canopy indicates that this area does not function as a woodland or forest community, and as such a red willow riparian woodland and forest designation would not be appropriate. One of the three membership rules for the *Baccharis salicifolia* Shrubland Alliance (mulefat thickets) states that *Baccharis salicifolia* comprises greater than 50 percent relative cover in shrub canopy. Given the predominance of mulefat in the mapped polygon, the *Baccharis salicifolia* Shrubland Alliance is the best fit.

4.2.6 Ornamental

The Project contains 0.55 acre of ornamental plantings within the onsite and offsite portions of the Project. The onsite portion totals 0.08 acre and the offsite portion totals 0.47 acre. Ornamental plantings predominantly consist of non-native horticultural plants and trees,

including introduced trees, shrubs, and annual plants. Ornamental plantings are associated with residential land use adjacent to proposed off-site improvements. Species observed include Aleppo pine (*Pinus halepensis*), oleander (*Nerium oleander*), blue gum (*Eucalyptus globulus*), orange (*Citrus* x *sinensis*), and Peruvian pepper (*Schinus molle*). There is no equivalent MCV alliance for this vegetation type.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following nine special-status vegetation communities for the Winchester and surrounding quadrangle maps: Desert Fan Palm Oasis Woodland, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Interior Basalt Flow Vernal Pool, Southern Mixed Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, Southern Willow Scrub, and Valley Needlegrass Grassland. The Project does not contain any special-status vegetation communities.

4.4 Special-Status Plants

The following special-status plant was detected at the Project in 2021 and 2025: paniculate tarplant (*Deinandra paniculata*, CNPS 4.2). Table 4-2 provides a list of special-status plants evaluated for the Project through general biological surveys and habitat assessments. 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, and 2) any other special-status plants that are known to occur within the vicinity of the Project, or for which potentially suitable habitat occurs within the site.

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

Species Name	Status	Habitat Requirements	Occurrence
Alkali marsh aster *Almutaster pauciflorus*	Federal: None State: None CNPS: Rank 2B.2	Meadows and seeps	Does not occur on the Project due to a lack of suitable habitat.
Bottle liverwort *Sphaerocarpos drewei*	Federal: None State: None CNPS: Rank 1B.1	Openings in chaparral and coastal scrub.	Confirmed absent during focused plant surveys.
California beardtongue *Penstemon californicus*	Federal: None State: None CNPS: Rank 1B.2 MSHCP	Sandy soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Does not occur on the Project due to a lack of suitable habitat.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(b)	Vernal pools. The typical blooming period for this plant is April through June.	Does not occur on the Project due to a lack of suitable habitat.
California satintail *Imperata brevifolia*	Federal: None State: None CNPS: Rank 2B.1	Mesic soils in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub.	Confirmed absent during focused plant surveys.

Species Name	Status	Habitat Requirements	Occurrence
California screw moss *Tortula californica*	Federal: None State: None CNPS: Rank 1B.2	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur on the Project due to a lack of suitable habitat.
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: Rank 1B.1	Sandy soils in chaparral, coastal sage scrub.	Confirmed absent during focused plant surveys.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt). The typical blooming period for this plant is February through June.	Does not occur on the Project due to a lack of suitable habitat.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP(d)	Alkaline soils in coastal sage scrub, coastal bluff scrub. The typical blooming period for this plant is May through October.	Confirmed absent during focused plant surveys.
Douglas' fiddleneck *Amsinckia douglasiana*	Federal: None State: None CNPS: Rank 4.2	Dry Monterey shale. Cismontane woodland, valley and foothill grassland.	Does not occur on the Project due to a lack of suitable habitat.
Engelmann oak *Quercus engelmannii*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland.	Does not occur on the Project due to a lack of suitable habitat.
Fish's milkwort *Polygala cornuta* var. *fishiae*	Federal: None State: None CNPS: Rank 4.3 MSHCP	Chaparral, cismontane woodland, riparian woodland.	Does not occur on the Project due to a lack of suitable habitat.
Graceful tarplant *Holocarpha virgata* ssp. *elongate*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Confirmed absent during focused plant surveys.
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CNPS: Rank 1B.2 MSHCP	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Confirmed absent during focused plant surveys.
Jaeger's (bush) milk-vetch *Astragalus pachypus* var. *jaegeri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Confirmed absent during focused plant surveys.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CNPS: Rank 3.1 MSHCP(d)	Valley and foothill grassland, vernal pools (alkaline soils). The typical blooming period for this plant is April through May.	Confirmed absent during focused plant surveys.
Little-leaved palo verde *Parkinsonia microphylla*	Federal: None State: None CNPS: Rank 4.3	Rocky or gravelly soils in Mojavean desert scrub.	Does not occur on the Project due to a lack of suitable habitat.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: Rank 1B.2 MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands.	Confirmed absent during focused plant surveys.

Species Name	Status	Habitat Requirements	Occurrence
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils. The typical blooming period for this plant is May through June.	Confirmed absent during focused plant surveys.
Mission Canyon bluecup *Githopsis diffusa* ssp. *filicaulis*	Federal: None State: None CNPS: Rank 3.1	Chaparral (mecis, disturbed areas)	Does not occur on the Project due to a lack of suitable habitat.
Mojave tarplant *Deinandra mohavensis*	Federal: None State: SE CNPS: Rank 1B.3 MSHCP(e)	Chaparral (mesic soils) and riparian scrub.	Confirmed absent during focused plant surveys.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: Rank 2B.2 MSHCP(d)	Marshes and swamps. The typical blooming period for this plant is January through July.	Does not occur on the Project due to a lack of suitable habitat.
Munz's onion *Allium munzii*	Federal: FE State: ST CNPS: Rank 1B.1 MSHCP(b)	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands. The typical blooming period for this plant is April through May.	Confirmed absent during focused plant surveys.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Confirmed absent during focused plant surveys.
Palmer's grapplinghook *Harpagonella palmeri*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Confirmed absent during focused plant surveys.
Palomar monkeyflower *Erythranthe (Mimulus) diffusa*	Federal: None State: None CNPS: Rank 4.3 MSHCP	Sandy or gravelly soils in chaparral, lower montane coniferous forest.	Confirmed absent during focused plant surveys.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CNPS: Rank 4.2	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Confirmed present onsite during focused plant surveys.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Chenopod scrub, playas, vernal pools. The typical blooming period for this plant is June through October.	Does not occur on the Project due to a lack of suitable habitat.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Confirmed absent during focused plant surveys.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: Rank 4.2	Sandy or granitic soils in chaparral and coastal scrub.	Confirmed absent during focused plant surveys.
Peninsular spineflower *Chorizanthe leptotheca*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur on the Project due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Confirmed absent during focused plant surveys.
Pride-of-California *Lathyrus splendens*	Federal: None State: None CNPS: Rank 4.3	Chaparral	Does not occur on the Project due to a lack of suitable habitat.
Prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Does not occur on the Project due to a lack of suitable habitat.
Rainbow manzanita *Arctostaphylos rainbowensis*	Federal: None State: None CNPS: Rank 1B.1 MSHCP	Chaparral	Does not occur on the Project due to a lack of suitable habitat.
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: Rank 4.3	Dry openings in chaparral and coastal sage scrub.	Confirmed absent during focused plant surveys.
Round-leaved filaree *California macrophylla*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Clay soils in cismontane woodland, valley and foothill grassland. The typical blooming period for this plant is March through May.	Does not occur on the Project due to a lack of suitable habitat.
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Confirmed absent during focused plant surveys.
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CNPS: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Confirmed absent during focused plant surveys.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: Rank 1B.1 MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats. The typical blooming period for this plant is April through October.	Confirmed absent during focused plant surveys.
San Diego button-celery *Eryngium aristulatum* var. *parishii*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP	Mesic soils in vernal pools, valley and foothill grasslands, coastal sage scrub.	Confirmed absent during focused plant surveys.
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: Rank 1B.1 MSHCP(d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur on the Project due to a lack of suitable habitat.
San Miguel savory *Clinopodium chandleri*	Federal: None State: None CNPS: Rank 1B.2 MSHCP(b)	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	Does not occur on the Project due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Santa Lucia dwarf rush *Juncus luciensis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	Does not occur on the Project due to a lack of suitable habitat.
Santa Rosa Basalt brodiaea *Brodiaea santarosae*	Federal: None State: None CNPS: Rank 1B.2	Basaltic soils in valley and foothill grassland.	Does not occur on the Project due to a lack of suitable habitat.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur on the Project due to a lack of suitable habitat.
Small-flowered microseris *Microseris douglasii* ssp. *platycarpha*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools. Occurring on clay soils.	Confirmed absent during focused plant surveys.
Small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Confirmed absent during focused plant surveys.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats. The typical blooming period for this plant is April through November.	Confirmed absent during focused plant surveys.
Southern California black walnut *Juglans californica*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Confirmed absent during focused plant surveys.
Southern mountains skullcap *Scutellaria bolanderi* ssp. *austromontana*	Federal: None State: None CNPS: Rank 1B.2	Mesic soils in chaparral, cismontane woodland, lower montane coniferous forest.	Does not occur on the Project due to a lack of suitable habitat.
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	Federal: None State: None CNPS: Rank 4.2	Coastal dunes (mesic), meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt).	Does not occur on the Project due to a lack of suitable habitat.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: Rank 1B.1 MSHCP(b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater). The typical blooming period for this plant is May through June.	Does not occur on the Project due to a lack of suitable habitat.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: Rank 1B.1	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools. The typical blooming period for this plant is May through June.	Confirmed absent during focused plant surveys.
Vernal barley *Hordeum intercedens*	Federal: None State: None CNPS: Rank 3.2 MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Confirmed absent during focused plant surveys.

Species Name	Status	Habitat Requirements	Occurrence
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Confirmed absent during focused plant surveys.
Wiggins' cryptantha *Cryptantha wigginsii*	Federal: None State: None CNPS: Rank 1B.2	Often on clay soils in coastal scrub.	Confirmed absent during focused plant surveys.
Woven-spored lichen *Texosporium sancti-jacobi*	Federal: None State: None CNPS: Rank 3	On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Chaparral (openings).	Does not occur on the Project due to a lack of suitable habitat.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: Rank 2B.1 MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools. The typical blooming period for this plant is May through September.	Does not occur on the Project due to a lack of suitable habitat.
Yucaipa onion *Allium marvinii*	Federal: None State: None CNPS: Rank 1B.2	Chaparral (clay, openings).	Does not occur on the Project due to a lack of suitable habitat.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened

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 is not within the geographic range of the species.
- Absent – The site contains suitable habitat for the species, and the species was not detected. Additionally, in the case of annual species or perennial species that emerge annually from bulbs or other underground structures, the surveys were performed during the appropriate blooming periods and during a timeframe following adequate precipitation.
- Not detected – The site contains suitable habitat for the species, and the species was not detected during focused surveys performed during the appropriate blooming periods, but due to below normal precipitation, the lack of detection may not indicate absence. This applies to annual species or perennial species that emerge annually from bulbs or other underground structures.
- 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

4.4.1 Special-Status Plants Detected at the Project

Paniculate Tarplant

GLA observed several paniculate tarplant (CNPS 4.2) individuals within the onsite Project, in association with the agricultural and disturbed buckwheat scrub areas. Refer to Section 5 below for a discussion of potential impacts to paniculate tarplant occurring as a result of the proposed Project.

This species is a member of the aster family (Asteraceae) and is designated as a CNPS List 4.2 species. This annual herb is known to occur in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools from 80 to 3,085 feet (25 to 940 meters) amsl. This is known to occur from the central coast and southern California counties and is known to bloom from March through November. The population occurs in multiple discrete patches and was initially observed during the focused rare plant survey visit on May 5, 2021, and again during a focused plant survey visit on May 22, 2025, with additional individuals observed incidentally during burrowing owl survey visits in June and July 2025.

4.5 Special-Status Animals

The following special-status animals were detected at the on and/or offsite Project: California horned lark (*Eremophila alpestris actia*, CDFW-WL), northern harrier (*Circus cyaneus*, CDFW-SSC*)*, and American badger (CDFW - SSC). Table 4-3 provides a list of special-status animals evaluated for the onsite and offsite Project 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 onsite and offsite Project, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the onsite and offsite Project or for which potentially suitable habitat occurs on the site.

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

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Crotch's bumble bee *Bombus crotchii*	Federal: None State: SCE	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Absent
Quino checkerspot butterfly *Euphydryas 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.	Project contains the host plant, *Plantago erecta,* but the Project is outside the current known range of the species, and this species is considered adequately conserved under the MSHCP.
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.	Does not occur on the Project due to a lack of suitable habitat.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None	Seasonal vernal pools	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to a lack of suitable habitat.
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP(a)	Seasonal vernal pools.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to a lack of suitable habitat.
Amphibians			
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 on the Project due to a lack of suitable habitat.
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur on the Project due to a lack of suitable habitat.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur on the Project due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
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 on the Project due to suitable habitat.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to suitable habitat.
Orangethroat whiptail *Aspidoscelis hyperythra*	Federal: None State: WL MSHCP	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Potential to occur on the Project due to suitable habitat.
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 on the Project due to suitable habitat.
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: SSC MSHCP	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur on the Project due to a lack of suitable habitat.
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	Does not occur on the Project due to a lack of suitable habitat.
Two-striped gartersnake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to a lack of suitable habitat.
Birds			
Bald eagle (nesting & wintering) *Haliaeetus leucocephalus*	Federal: None 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 on the Project due to a lack of suitable habitat.
Bell's sage sparrow *Artemisiospiza 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 on the Project for nesting and foraging due to presence of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Bendire's thrasher *Toxostroma bendirei*	Federal: None State: SSC	Desert, especially areas of tall vegetation, cholla cactus, creosote bush and yucca, and in juniper woodland.	Does not occur on the Project due to a lack of suitable habitat.
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SC, 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.	Absent
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.	Does not occur on the Project due to a lack of suitable habitat.
Cooper's hawk (nesting) *Accipiter cooperii*	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.	Does not occur on the Project due to a lack of suitable habitat.
Ferruginous hawk (wintering) *Buteo regalis*	Federal: None State: WL 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.	Does not occur on the Project due to a lack of suitable habitat.
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.	Potential to occur on the Project for foraging only. Does not occur on the Project for nesting due to a lack of suitable habitat.
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.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project for nesting and foraging due to presence of suitable habitat.
Northern harrier (nesting) *Circus hudsonius*	Federal: None State: SSC MSHCP	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Confirmed present onsite during biological surveys.

Species Name	Status	Habitat Requirements	Occurrence
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: WL MSHCP	Grass covered hillsides, coastal sage scrub, and chaparral.	Potential to occur on the Project for nesting and foraging due to presence of suitable habitat.
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE MSHCP(a)	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to a lack of suitable habitat.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: ST, 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 on the Project due to a lack of suitable habitat.
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT State: SE MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur on the Project due to a lack of suitable habitat.
White-faced ibis (nesting colony) *Plegadis chihi*	Federal: None State: WL MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Does not occur on the Project due to a lack of suitable habitat.
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.	Potential to occur on the Project for nesting and foraging due to presence of suitable habitat.
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC MSHCP	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.	Does not occur on the Project due to a lack of suitable habitat.
Yellow-headed blackbird (nesting) *Xanthocephalus xanthocephalus*	Federal: None State: SSC	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not occur on the Project due to a lack of suitable habitat.
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.	Present
Dulzura pocket mouse *Chaetodipus californicus femoralis*	Federal: None State: SSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Does not occur on the Project due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Jacumba pocket mouse *Perognathus longimembris internationalis*	Federal: None State: SSC	Arid plains and desert-like country. Grassland, alluvial sage scrub, and coastal sage scrub.	Does not occur on the Project due to a lack of suitable habitat.
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 on the Project due to a lack of suitable habitat.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Does not occur on the Project due to a lack of suitable habitat.
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Does not occur on the Project due to a lack of suitable habitat.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC 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 on the Project due to a lack of suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	Does not occur on the Project due to a lack of suitable habitat.
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.	Does not occur on the Project due to a lack of suitable habitat.
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.	Does not occur on the Project due to a lack of suitable habitat.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Does not occur on the Project due to a lack of suitable habitat.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC	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 on the Project due to a lack of suitable habitat.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC	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 on the Project due to a lack of suitable habitat.

STATUS

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
BGEPA– Bald and Golden Eagle Protection Act	SCE – State Candidate Endangered
	FP – 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

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.
- Absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys that followed an accepted protocol.
- Not detected – The site contains suitable habitat for the species. Although there is no defined survey protocol for the species, it was not detected while conducting protocol surveys for other species that utilize the same habitat.
- Potential to occur – The species has a potential to occur based habitat suitability and species range. Although it was not observed during surveys, the lack of detection cannot be interpreted as absence.
- Present – The species was detected onsite incidentally or through focused surveys

4.5.1 Special-Status Animal Species Observed within the Project

Northern Harrier

The northern harrier is designated by CDFW as a SSC when nesting and is a covered species under the MSHCP. The northern harrier frequents open wetlands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, desert sinks, fresh and saltwater emergent wetlands, and is seldom found in wooded areas. Harriers nest on the ground in marshland habitats and prefer dense areas of grasses, willows, and cattails. Threats to northern harriers include conversion of native grassland to agriculture, habitat fragmentation, and loss of wetland/marsh habitats.

GLA biologists observed an individual northern harrier foraging on four separate visits to the onsite Project in 2021. This species is not expected to nest within the onsite Project due to the lack of suitable nesting habitat. A total of 211.71 acres of foraging habitat for the harrier is present.

California Horned Lark

The California horned lark is designated by CDFW as a WL when nesting and is a covered species under the MSHCP as well as a planning species for the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills. This species is found in a variety of open habitats, usually where trees and large shrubs are absent. Found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above tree line. This species nests on the ground in open habitats with low, sparse vegetation.

GLA biologists observed individuals foraging on the onsite Project in 2021 and 2025. This species is also expected to nest within the onsite Project. A total of 202.61 acres of foraging habitat for the horned lark is present.

American Badger

The American badger is designated as an SSC and is not a covered species under the MSHCP. This species prefers open areas and may also frequent brushlands with little groundcover. When inactive, it occupies underground burrow. Young are born in underground burrows.

GLA biologists observed a single dead American badger as roadkill in 2025 in the offsite Project footprint north of Keller Road along the western shoulder of Winchester Road. This species may occasionally occur on the site for foraging and for local/regional movement. However, this species is not expected to utilize the Project site for live-in habitat, including for natal denning, as burrows suitable for badgers were not incidentally observed during surveys. A total of 211.71 acres of potential foraging habitat for the American badger is present.

4.5.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur at the Project

Coast Horned Lizard

The coast horned lizard is designated by CDFW as SSC and is a covered species under the MSHCP. In California, the coast horned lizard ranges from the Transverse Ranges south to the Mexican border west of the deserts, although the taxon occurs on scattered sites along the extreme western desert slope of the Peninsular Ranges. The known elevation range of this species is from 33 feet (10 meters) to approximately 7,000 feet (2,130 meters) in the San Jacinto Mountains, in Riverside County. This species is found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g., floods, fire, roads, grazed areas, fire breaks). Extensive habitat loss from agriculture and urbanization, have been the main reasons cited for the decline of this species. This species been known to occur within the vicinity of the Project and it has a low to moderate potential to occur within the disturbed buckwheat scrub, disturbed, agriculture, and disturbed mulefat scrub habitats. A total of 211.76 acres of habitat for the coast horned lizard is present.

Coastal Whiptail

The coastal whiptail is designated by CDFW as SSC and is a covered species under the MSHCP. The coastal whiptail ranges through the semi-arid lowlands of coastal southern California. The coastal whiptail is often found open areas of grassland, sage scrub, chaparral, and alluvial wash habitats. This species is known to occur in the vicinity of the Project and has moderate potential to occur within the disturbed buckwheat scrub, agriculture, and disturbed habitats. A total of 211.71 acres of habitat for the coastal whiptail is present.

Orangethroat Whiptail

The orange-throat whiptail is designated by CDFW as a WL and is a covered species under the MSHCP. This species is often found in coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland. This species is known to occur in the vicinity of the Project and has low to moderate potential to occur within the disturbed buckwheat scrub, agriculture, and disturbed habitats. A total of 211.71 acres of habitat for the orange-throat whiptail is present.

Red-diamond rattlesnake

The red-diamond rattlesnake is designated by CDFW as SSC and is a covered species under the MSHCP. From an ecological standpoint, this rattlesnake species has a wide tolerance for varying environments. Although this species is recorded from a number of vegetation types, it is most commonly associated with heavy brush with large rocks or boulders. Threats include habitat loss due to development, fragmentation, off-road vehicle use, and the deliberate removal of individuals near residential and recreational lands. This species is known to occur in the vicinity of the Project and has a moderate potential to occur within the rock outcrops, buckwheat scrub, agriculture, and disturbed habitats. A total of 211.71 acres of habitat for the red diamond rattlesnake is present within the Project.

Bell's Sage Sparrow

The Bell's sage sparrow is designated by CDFW as WL and is a covered species under the MSHCP as well as a planning species for the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills. This species is often found in chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains. This species is known to occur in the vicinity of the Project and has moderate potential to occur within the disturbed buckwheat scrub and disturbed habitats. A total of 36.75 acres of habitat for the sage sparrow is present.

Golden Eagle

The golden eagle is designated by CDFW as FP and is a covered species under the MSHCP. This species is often found in grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. This species nests on rock outcrops and ledges. This species is known to occur in the vicinity of the Project and has low potential to forage within the Project

within the agriculture and disturbed habitats. A total of 202.61 acres of foraging habitat for the golden eagle is present.

Loggerhead Shrike

The loggerhead shrike is designated as a SSC when nesting and is a covered species under the MSHCP. This species is found throughout the foothills and lowlands of California as a resident. This species is known to forage over open ground within areas of short vegetation, pastures with fence rows, grasslands, riparian areas, open woodland, agricultural fields, desert washes, and desert scrub. This species commonly nests within dense, mainly thorny, vegetation and may use areas where tumbleweed has concentrated. This species is known to occur in the vicinity of the Project and has low potential to forage and nest within the Project. A total of 211.71 acres of habitat for the shrike is present.

Southern California rufous-crowned sparrow

The Southern California rufous-crowned sparrow is designated as a WL when nesting and is a covered species under the MSHCP as well as a planning species for the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills. This species is found grass covered hillsides, coastal sage scrub, and chaparral. This species commonly nests on the ground at the base of a shrub. This species is known to occur in the vicinity of the Project and has moderate potential to forage and nest within the Project. A total of 211.71 acres of foraging habitat for the rufous-crowned sparrow is present.

White-Tailed Kite

The white-tailed kite is designated by CDFW as a FP species, is considered locally rare when nesting, and is a covered species under the MSHCP. This species inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas and forest edges adjacent to open areas are used for nesting. This species is known to occur in the vicinity of the Project and has moderate potential to forage and nest within the Project. A total of 211.71 acres of habitat for the kite is present.

4.5.3 Special-Status Wildlife Species Confirmed Absent Through Focused Surveys at the Project

Burrowing Owl

The Project occurs within the MSHCP Burrowing Owl Survey Area; however, burrowing owl was confirmed absent from the Project during the 2021 and 2025 focused breeding season surveys. No burrowing owls were observed within the Project, and no burrowing owl sign was detected in association with burrows.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as endangered under CESA. Focused surveys conducted in 2025 did not detect the Crotch's bumble bee. This species is considered absent from the Project site.

4.6 Raptor Use

The Project provides suitable foraging habitat for a number of raptor species, including special-status raptors as discussed above.

Southern California contains a diversity of birds of prey (raptors), many species of which 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 American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) 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 the 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. The MSHCP does not provide Fish and Game Code take coverage for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the raptors detected over the course of the field studies. The Project lacks potential nesting habitat (e.g., mature trees, shrubs) for raptor species but is expected to provide marginal foraging habitat in the form of insects, spiders, lizards, snakes, small mammals, and other birds as discussed above.

4.7 Nesting Birds

The Project contains immature trees, shrubs, and ground cover that provide suitable habitat for nesting migratory birds. Mortality of migratory birds (including eggs) is prohibited under California Fish and Game Code.[10]

Birds anticipated to nest on the Project would be those that are common to disturbed areas and include species such as killdeer (*Charadrius vociferus*) and mourning dove (*Zenaida macroura*).

[10] 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.

4.8 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 can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement potentially taking many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between 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 from habitat(s) in the connected areas but if used by the wildlife species of interest, the corridor will still function as desired.

The Project Proponent is conserving a minimum of 61.42 acres of land within the northern half of the onsite Project to assist with the assembly of Proposed Constrained Linkage 17. This land dedication is consistent with MSHCP requirements and has been approved by the RCA through the JPR and HANS processes. The amended JPR concluded that "development of the project site would not impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation."

The offsite Project is limited to utility and/or road improvements within either existing or covered roads, or are utility improvements within these roads, which would have no further effect on wildlife movement than exists today. Refer to Section 5.5 below for a discussion on impacts to wildlife linkages/corridors and nursery sites.

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. No wildlife nursery sites occur on the Project site.

4.9 Critical Habitat

The Project does not occur within any lands mapped as Critical Habitat by the USFWS.

4.10 Jurisdictional Waters

Potential jurisdictional features analyzed as part of the field investigation include ten ephemeral drainage features that occur within the onsite and offsite Project, referred to herein as Drainages A, A-1, B, C, D, E, F, G, H, and I.

These features extend across the onsite and offsite Project in a general southerly direction (except for Drainages B and H, which drain in a southwesterly direction). With the exception of Drainages A, A-1, H, and I, the majority of these drainages originate onsite and convey surface runoff and/or storm water runoff from the adjacent hillsides. The drainages occur on vacant agricultural land with a majority of the site being disked on a regular basis. Elevations range

from approximately 1,420 to 1,560 feet above mean sea level. Off-site flows are ultimately conveyed east below SR 79, southwest to Warm Springs Creek, and onward to Murrieta Creek.

Drainage A

Drainage A is an ephemeral blue-line drainage that comprises approximately 808 linear feet within the Project site. No wetlands are associated with this feature.

Drainage A enters the southwestern corner of the Project site via road runoff and nuisance flows from the surrounding areas. Drainage A meanders in a general easterly/southeasterly direction for a collective 721 linear feet onsite and 87 linear feet offsite, before exiting the Project site southeast towards Winchester Road/SR 79. Flows from Drainage A are ultimately conveyed into the storm drain system west of SR 79, which drains southwest to Warm Springs Creek, and onward to Murrieta Creek. The channel bottom supports a sandy loam substrate and was completely dry during our field delineation despite recent rainfall events.

Drainage A is dominated by upland weedy species common throughout the Project, including black mustard (*Brassica nigra*), common barley (*Hordeum vulgare*), tocalote (*Centaurea melitensis*), ripgut brome (*Bromus diandrus*), golden crown beard (*Verbesina enceliodes*) smooth cat's ear (*Hypochaeris glabra*), Russian thistle (*Salsola ssp.*), dove weed (*Croton setiger*), and wild oat (*Avena fatua*). The westerly drainage reach contains a single red willow (*Salix laevigata*), one palo verde (*Parkinsonia aculeata*), and a few clumps of mulefat (*Baccharis salicifolia*).

Drainage A-1

Drainage A-1 is an ephemeral drainage that conveys road runoff and nuisance flows through a pipe culvert south of Keller Road in the offsite portion of the Project. This feature extends across the onsite portion of the Project area in a southerly direction for approximately 31 linear feet [24 feet onsite and 7 feet offsite] before leaving the Project site and continuing its flow path offsite and eventually converging with Drainage A downstream. Drainage A-1 contains non-native upland grasses and weeds and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature.

Drainage B

Drainage B is an ephemeral drainage that traverses the northwestern portion of the onsite Project in a general southwesterly direction for approximately 1,528 linear feet before entering the storm drain system at a small pipe culvert under Pourroy Road. This feature originates in the northwestern portion of the Project and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature. Drainage B is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*).

Drainage C

Drainage C is an ephemeral drainage that extends across the western portion of the site in a southerly direction for approximately 1,725 linear feet before dissipating onsite as sheet flow towards a roadside pipe culvert at the southern Project boundary. This feature originates onsite and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature. Drainage C is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*).

Drainage D

Drainage D is an ephemeral drainage that extends across the west-central portion of the site in a southerly direction for approximately 1,205 linear feet before dissipating onsite as sheet flow towards a roadside pipe culvert at the southern project boundary. This feature originates onsite and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature.

Drainage E

Drainage E is an ephemeral drainage that extends across in central/east-central portion of the site in a southeasterly direction for approximately 2,722 linear feet before dissipating onsite as sheet flow towards a culvert along the eastern project boundary. This feature originates onsite and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and completely dry during our field delineation. No wetlands or riparian areas are associated with this feature. Drainage E is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*).

Drainage F

Drainage F is an ephemeral drainage that extends across the eastern portion of the site in a southerly direction for approximately 888 linear feet before dissipating onsite as sheet flow. This feature originates onsite and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature. Drainage F is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*).

Drainage G

Drainage G is an ephemeral drainage that enters the site from the northeast and extends in a southerly direction for approximately 1,009 linear feet (977 feet onsite and 32 feet offsite) before exiting the eastern Project boundary adjacent to SR 79. At this point, flows enter a concrete culvert beneath SR 79 and continue offsite. This feature conveys stormwater runoff from the adjacent hillsides and is somewhat erosional in portions. Drainage G was completely dry during

our field delineation and no wetlands are associated with this feature. Drainage G is dominated by similar vegetation with the addition of buckwheat along the banks.

Drainage H

Drainage H is an ephemeral drainage feature associated with the eastern portion of the offsite Project area along Keller Road. This feature totals approximately 139 linear feet and is completely unvegetated with the exception of planted Peruvian pepper trees (*Schinus 65rcu*) overhanging the upper banks. Drainage H was completely dry during our field delineation and no wetlands or riparian areas are associated with this feature.

Drainage I

Drainage I is an ephemeral drainage feature located on the northwest side of Pourroy Road in the offsite Project area. This feature conveys road runoff and totals approximately 77 linear feet. Drainage I is unvegetated and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature.

4.10.1 Corps Jurisdiction

Pursuant to 33 CFR Part 325.9, the onsite and offsite Project does not contain waters of the U.S.; therefore, no Corps jurisdiction is associated with the onsite and offsite Project.

The onsite and offsite Project supports several ephemeral drainage features (Drainages A – I) that flow only in direct response to precipitation (e.g., rain). On April 6, 2021, the Corps issued an Approved Jurisdictional Determination (AJD) for the Project confirming that the none of the drainages in the onsite and offsite Project are subject to Corps jurisdiction. The AJD is valid for a period of five years.

4.10.2 Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with Project totals 0.54 acre of waters the State, none of which consists of State wetlands. Onsite acreage totals are 0.51 acre and offsite totals are 0.03 acre. A total of 10,132 linear feet of ephemeral stream is present consisting of 9,790 feet onsite and 342 feet offsite.

Regional Board jurisdiction is limited to ten ephemeral drainage features (Drainages A, A-1, B, C, D, E, F, G, H, and I) that convey surface water only in direct response to precipitation (e.g., rain). These features exhibit flow sign indicators as evidenced by changes in soil characteristics and incised channel banks. On April 6, 2021, the Corps issued an AJD for the Project in concurrence with the NWPR. Pursuant to the NWPR, ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features are also not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. The AJD issued for the Project is valid for a period of five years. 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.

Table 4-4 below summarizes Regional Board jurisdictional waters associated with the onsite and offsite Project. Drainage descriptions are provided above. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9A].

Table 4-4. Summary of Potential Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters of the State (acres)	Regional Board State Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Drainage A	0.07	0.00	0.07	808
Drainage A-1	0.004	0.00	0.004	31
Drainage B	0.04	0.00	0.04	1,528
Drainage C	0.10	0.00	0.10	1,725
Drainage D	0.08	0.00	0.08	1,205
Drainage E	0.15	0.00	0.15	2,722
Drainage F	0.03	0.00	0.03	888
Drainage G	0.05	0.00	0.05	1,009
Drainage H	0.01	0.00	0.01	139
Drainage I	0.004	0.00	0.004	77
Total*	**0.54**	**0.00**	**0.54**	**10,132**

*Sum of individual parts may not equal sum total due to rounding error.

4.10.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Project site totals 0.62 acre, of which 0.05 acre consists of riparian stream and 0.58 acre consists of non-riparian stream. A total of 10,132 linear feet of ephemeral stream is present. This includes 136 linear feet of riparian stream and 9,996 linear feet of non-riparian stream and includes all areas within Regional Board jurisdiction. Of the 10,132 linear feet of stream, 9,790 feet is onsite and 342feet is offsite.

CDFW jurisdiction at the Project includes Drainages A, A-1, B, C, D, E, F, G, H, and I. These features exhibit defined stream flow indictors as evidenced by discernible channel banks, drainage patterns, and changes in soil characteristics. Since these features exhibit a discernable stream course, they are subject to regulation by the CDFW under Section 1602 of the Fish and Game Code.

The Project also contains topographic features, including swales and/or erosional areas that lack a defined stream course and do not convey adequate flow sign or a discernable channel banks. 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 4-5 below summarizes CDFW jurisdictional waters associated with the Project. Drainage descriptions are provided above. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9B].

Table 4-5. Summary of Potential CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Drainage A	0.08	0.05	0.13	808
Drainage A-1	0.004	0.00	0.004	31
Drainage B	0.04	0.00	0.04	1,528
Drainage C	0.10	0.00	0.10	1,725
Drainage D	0.09	0.00	0.09	1,205
Drainage E	0.17	0.00	0.17	2,722
Drainage F	0.03	0.00	0.03	888
Drainage G	0.05	0.00	0.05	1,009
Drainage H	0.01	0.00	0.01	139
Drainage I	0.004	0.00	0.004	77
Total	**0.58**	**0.05**	**0.63**	**10,132**

*Sum of individual parts may not equal sum total due to rounding error.

4.11 MSHCP Riparian/Riverine Areas and Vernal Pools

Vegetation communities associated with riparian systems are considered special-status natural vegetation communities because, similar to coastal sage scrub, they have declined throughout southern California during past decades. In addition, they can support a large variety of special-status wildlife species. Most special-status species directly associated with MSHCP riparian/riverine resources are covered species under the MSHCP (under Section 6.1.2 of the Plan). The MSHCP has specific policies and procedures regarding the evaluation and conservation of riparian/riverine resources (including riparian vegetation) because it supports MSHCP covered species. Specifically, the MSHCP states that "riparian/riverine areas are natural lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year." Thus, the MSHCP classification of riparian/riverine includes both riparian (depleted natural vegetation communities) as well as ephemeral drainages that are natural in origin but may lack riparian vegetation. For this analysis, all features that qualify as state streambeds under CDFW jurisdiction are considered MSHCP riparian/riverine resources.

MSHCP jurisdiction associated with the onsite and offsite Project totals 0.63 acre, of which 0.05 acre consists of riparian stream and 0.58 acre consists of riverine stream. A total of 10,132 linear feet of ephemeral stream is present. This includes 136 linear feet of riparian stream and 9,996 linear feet of non-riparian riverine stream and includes all areas within CDFW jurisdiction.

MSHCP jurisdiction at the onsite and offsite Project includes Drainages A, A-1, B, C, D, E, F, G, H, and I. These features exhibit defined stream flow indictors as evidenced by discernible channel banks, drainage patterns, and changes in soil characteristics. Since these features exhibit a discernable stream course, they are subject to regulation by Section 6.1.2 of the MSHCP.

Table 4-6 below summarizes MSHCP jurisdictional waters associated with the onsite and offsite Project. Drainage descriptions are provided above. The boundaries of MSHCP jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9C].

Table 4-6. Summary of Potential MSHCP Jurisdiction

Drainage Name	Inside Criteria Cell				Outside Criteria Cell				Total MSHCP Jurisdiction (acres)	Length (linear feet)
	Onsite		Offsite		Onsite		Offsite			
	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)		
Drainage A	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.13	808
Drainage A-1	0.004	0.00	0.001	0.00	0.00	0.00	0.00	0.00	0.004	31
Drainage B	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	1,528
Drainage C	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1,725
Drainage D	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1,205
Drainage E	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	2,722
Drainage F	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	888
Drainage G	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1,009
Drainage H	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	139
Drainage I	0.00	0.00	0.002	0.00	0.00	0.00	0.002	0.00	<0.01	77
Total	**0.55**	**0.05**	**0.02**	**0.00**	**0.00**	**0.00**	**0.002**	**0.00**	**0.63**	**10,132**

*Sum of individual parts may not equal the sum total due to rounding error.

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 immediately related to 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. 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

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

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.

Appendix G(a) 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 (now CA Department of Fish and Wildlife) or U.S. Fish and Wildlife Service."

5.2 Special-Status Species

Appendix G(a) 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 Impacts to Special-Status Plants

Paniculate Tarplant

The proposed Project will result in impacts to paniculate tarplant. However, impacts to paniculate tarplant occurring as a result of the proposed Project would be less than significant under CEQA. The onsite and offsite Project is heavily disturbed and the onsite population is relatively small. Therefore, given the low sensitivity of this species (CRPR 4.2), the proposed onsite and offsite Project will not have a substantial adverse effect on the survivorship of paniculate tarplant. Additionally, while paniculate tarplant is classified as a rare plant by CNPS, it is not a federally or state-listed species. Furthermore, there are no survey or preservation requirements for this species pursuant to any resource agency or HCP, including the MSHCP.

5.2.2 Impacts to Special-Status Animals

The proposed onsite and offsite Project will result in the loss of habitat that supports special-status species including California horned lark, northern harrier, and American badger, and the loss of habitat that has the potential to support special-status species including coast horned lizard, coastal whiptail, orange-throat whiptail, red-diamond rattlesnake, bell's sage sparrow, burrowing owl, golden eagle, loggerhead shrike, southern California rufous-crowned sparrow, and white-tailed kite. Impacts to these species may be significant under CEQA, however all of these species except the American badger are covered under the MSHCP conservation goals and therefore, onsite and offsite Project impacts to suitable habitat are addressed through consistency with, and participation in, the MSHCP, as outlined below in Section 6.0, Recommended Avoidance Measures. Although the American badger is not a covered species, conserved habitat in the MSHCP Reserve in the vicinity of the habitat is expected to provide sufficient habitat to

offset the loss of foraging habitat at the Project site. With implementation and coverage of the Project under the MSHCP conservation goals, the onsite and offsite Project would not have a significant impact on special-status species. Therefore, these impacts are addressed through consistency with the MSHCP, as outlined in Section 7.0.

5.3 Sensitive Vegetation Communities

Appendix G(b) of the CEQA guidelines asks if 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."

As discussed above, the proposed onsite and offsite Project will permanently impact 0.05 acre of Disturbed Mulefat Scrub. No temporary impacts to Disturbed Mulefat Scrub are expected during construction. Although this is not considered a sensitive plant community, it has components similar to the Southern Riparian Scrub plant community (Classified as G3-Vunerable by the CNDDB) [Exhibit 10]. The loss of mulefat/riparian habitat must be mitigated pursuant to *Volume I, Section 6.1.2* of the MSHCP. Impacts to Mulefat Scrub would be potentially significant; however, this impact would be reduced to a less than significant level with the mitigation described below in Section 6.0 of this report and through participation in the MSHCP. None of the other vegetation communities to be impacted by the onsite and offsite Project are considered as sensitive communities under CEQA. Table 5-1 provides a summary of impacts to vegetation/land use types.

Table 5-1. Summary of Vegetation/Land Use Impacts

Vegetation/Land Use Type	Inside Criteria Cell		Outside Criteria Cell		Total Impacts (acres)	Proposed MSHCP Conservation Areas (acres)
	Onsite Impacts (acres)	Offsite Impacts (acres)	Onsite Impacts (acres)	Offsite Impacts (acres)		
Agriculture	127.44	0	0.00	0.00	127.44	47.79
Developed	1.44	13.18	0.00	1.04	15.58	0.00
Disturbed	2.67	13.17	0.02	3.65	19.59	7.80
Disturbed Buckwheat Scrub	2.81	0.39	0.00	0.07	3.27	5.83
Ornamental	0.08	0.34	0.00	0.13	0.55	0.00
Disturbed Mulefat Scrub	0.05	0.00	0.00	0.00	0.05	0.00
Total	**134.50**	**27.07**	**0.02**	**4.89**	**166.47**	**61.42**

*Sum of individual parts may not equal sum total due to rounding error.

5.4 Wetlands

Appendix G(c) of the State CEQA guidelines asks if 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 onsite and offsite Project does not contain any state or federally protected wetlands; therefore no impacts to state or federally protected wetlands would occur as a result of construction of the proposed onsite and offsite Project.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Appendix G (d) of the State CEQA guidelines asks if 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 Proponent is conserving a minimum of 61.42 acres of land within the northern half of the onsite Project to assist with the assembly of Proposed Constrained Linkage 17. This land dedication is consistent with MSHCP requirements and has been approved by the RCA through the JPR and HANS processes.

The offsite Project is limited to utility and/or road improvements within either existing or covered roads, or are utility improvements within these roads, which would have no further effect on wildlife movement than exists today.

Temporary disturbances to wildlife movement may occur during construction; however, these disturbances would be limited to day-time hours during construction activities and would not interfere significantly with wildlife movement on a landscape level. The Project's consistency with the MSHCP would reduce impacts to wildlife movement to a level of less than significant under CEQA. Additionally, no native wildlife nursery sites were observed within the Project area and therefore, no significant impacts to wildlife nursery sites would occur.

5.6 Local Policies or Ordinances

Appendix G(e) of the State CEQA guidelines asks if 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.

Chapter 12.24 of the Riverside County Code of Ordinances includes regulations for the removal of native trees. Specifically, Riverside County Ordinance No. 559 (as amended through 559.7), requires a permit for the removal of living native trees on parcels or property greater than 0.5 acre in size, located in the unincorporated Riverside County, and above 5,000 feet in elevation. The Project elevation is below 5,000 acres. As such, Riverside County Ordinance No. 559 (as amended through 559.7) is not applicable to the proposed Project.

5.7 Habitat Conservation Plans

Appendix G(f) of the State CEQA guidelines asks if 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."

The onsite and offsite Project is within the Western Riverside County MSHCP Plan Area. Section 7.0 of this report analyzes compliance of the Project with the Reserve Assembly and species/habitat requirements of the MSHCP. Impacts to species/habitats in the context of MSHCP requirements are summarized therein. Through compliance with the applicable requirements, the onsite and offsite Project will not conflict with the provisions of the MSHCP.

5.8 Jurisdictional Waters

5.8.1 Impacts to Corps Jurisdiction

No Corps jurisdiction is present within the on or offsite Project. Therefore, the proposed Project will not impact Corps jurisdiction.

5.8.2 Impacts to Regional Board Jurisdiction

Under the proposed onsite and offsite Project, a total of 0.36 acre of State waters under Regional Board jurisdiction would be permanently impacted (all non-wetland waters) [Exhibit 11A – Regional Board Jurisdiction Impact Map]. No temporary impacts to Regional Board jurisdiction are expected. A total of 5,766 linear feet of streambed will be permanently impacted. Table 5-2 below summarizes the impacts to each Regional Board jurisdictional feature. Refer to Section 6.0, Recommended Mitigation/Avoidance Measures for measures to offset these impacts.

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Table 5-2. Summary of Potential Regional Board Jurisdictional Impacts

Drainage Name	Regional Board Impacts Non-Wetland Waters (Acres)	Regional Board Impacts State Wetland Waters (Acres)	Total Regional Board Impacts (Acres)	Total Regional Board Impacts (Linear Feet)
Waters of the State				
Drainage A	0.07	0	0.07	808
Drainage A-1	0.004	0	0.004	31
Drainage B	0	0	0	0
Drainage C	0.10	0	0.10	1,725
Drainage D	0.08	0	0.08	1,205
Drainage E	0.09	0	0.09	1,703
Drainage F	0.002	0	0.002	46
Drainage G	0.001	0	0.001	32
Drainage H	0.01	0	0.01	139
Drainage I	0.004	0	0.004	77
Total	**0.36**	**0**	**0.36**	**5,766**

*Sum of individual parts may not equal sum total due to rounding error.

5.8.3 Impacts to CDFW Jurisdiction

Under the proposed onsite and offsite Project, a total of 0.44 acre of CDFW jurisdiction would be permanently impacted (0.39 acre non-riparian streambed and 0.05 acre riparian streambed) [Exhibit 11B – CDFW Jurisdiction Impact Map]. No temporary impacts to CDFW jurisdiction are expected. Table 5-3 below summarizes the impacts to each CDFW jurisdictional feature. Refer to Section 6.0, Recommended Avoidance Measures for measures to offset these impacts.

Table 5-3. Summary of Potential CDFW Jurisdictional Impacts

Drainage Name	CDFW Impacts Non-Riparian Stream (Acres)	CDFW Impacts Riparian Stream (Acres)	Total CDFW Impacts (Acres)	Total CDFW Impacts (Linear Feet)
Drainage A	0.08	0.05	0.13	783
Drainage A-1	0.005	0	0.005	31
Drainage B	0	0	0	0
Drainage C	0.10	0	0.10	1,725
Drainage D	0.09	0	0.09	1,205
Drainage E	0.10	0	0.10	1,703
Drainage F	0.002	0	0.002	46
Drainage G	0.001	0	0.001	32
Drainage H	0.01	0	0.01	139
Drainage I	0.004	0	0.004	77
Total	**0.39**	**0.05**	**0.44**	**5,766**

*Sum of individual parts may not equal sum total due to rounding error.

5.8.4 Impacts to MSHCP Riparian/Riverine Areas

Under the proposed onsite and offsite Project, a total of 0.44 acre of MSHCP jurisdiction would be permanently impacted (0.39 acre riverine streambed and 0.05 acre riparian streambed) [Exhibit 11C – MSHCP Riparian/Riverine Areas Impact Map]. No temporary impacts to MSHCP jurisdiction are expected. Table 5-4 below summarizes the impacts to each MSHCP jurisdictional feature. Refer to Section 6.0, Recommended Avoidance Measures for measures to offset these impacts.

Table 5-4. Summary of Potential MSHCP Jurisdictional Impacts

Drainage Name	Inside Criteria Cell				Outside Criteria Cell				Total MSHCP Impacts (acres)
	Onsite		Offsite		Onsite		Offsite		
	MSHCP Impacts Riverine Stream (acres)	MSHCP Impacts Riparian Stream (acres)	MSHCP Impacts Riverine Stream (acres)	MSHCP Impacts Riparian Stream (acres)	MSHCP Impacts Riverine Stream (acres)	MSHCP Impacts Riparian Stream (acres)	MSHCP Impacts Riverine Stream (acres)	MSHCP Impacts Riparian Stream (acres)	
Drainage A	0.06	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.13
Drainage A-1	0.004	0.00	0.001	0.00	0.00	0.00	0.00	0.00	0.005
Drainage B	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0
Drainage C	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Drainage D	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Drainage E	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Drainage F	0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.002
Drainage G	0.00	0.00	0.001	0.00	0.00	0.00	0.00	0.00	0.001
Drainage H	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Drainage I	0.00	0.00	0.002	0.00	0.00	0.00	0.002	0.00	0.004
Total	**0.36**	**0.05**	**0.02**	**0.00**	**0.00**	**0.00**	**<0.01**	**0.00**	**0.44**

*Sum of individual parts may not equal sum total due to rounding error.

Pursuant to Volume I, Section 6.1.2 of the MSHCP, projects must consider alternatives providing for 100% percent avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required. Consistency with the MSHCP would reduce impacts to a level of less than significant under CEQA. Refer to Section 6.4 for addressing the removal of 0.55 acre of MSHCP riparian/riverine resources and the need for a DBESP.

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. Potential indirect effects associated with development include water quality impacts associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

The onsite and offsite 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.

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's contractor would be required to develop a Stormwater Pollution Prevention Plan (SWPPP) to address runoff and water quality during construction. Following the completion of construction activities, areas proposed for development as part of the Project would consist of buildings and other impervious surfaces, along with areas proposed for ornamental landscaping. As discussed in the EIR, the Project has been designed to detain runoff generated on the Project such that there would be no increase in developed storm flows as compared to existing drainage conditions. Additionally, the Project would be subject to compliance with a Project-specific Water Quality Management Plan (WQMP), which would specify measures that must be undertaken to ensure long-term maintenance of the water quality and detention features. As such, the Project would not in any way result in increased drainage or affect the water quality of the river to Warm Springs Creek or Murrieta Creek. Mandatory compliance with the future-required SWPPP during construction and the Project's WQMP under long-term operations would ensure that the Project does not conflict with the MSHCP provisions related to indirect drainage impacts. Accordingly, impacts would be less than 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 proposed Project will implement a SWPPP that will address runoff during construction.

5.9.3 Lighting

Construction activities associated with the Project would be subject to compliance with Riverside County Ordinance No. 847, which prohibits construction activities that make loud noise from occurring between 6:00 p.m. and 6:00 a.m. during the months of June through September, and between 6:00 p.m. and 7:00 a.m. during the months of October through May, and on Sundays and Federal holidays. With mandatory compliance with Ordinance No. 847, construction activities would not occur during nighttime hours, and impacts due to a conflict with the MSHCP UWIG provisions related to lighting would be less than significant.

Under long-term operating conditions, future development onsite would be subject to compliance with Riverside County Ordinance No. 655 (Mt. Palomar Observatory), Riverside County Ordinance No. 915 (Regulating Outdoor Lighting), and the lighting requirements of the proposed Keller Crossing Specific Plan (SP 380A1). In particular, Section 5 of Riverside County Ordinance No. 915 requires that "[a]ll outdoor luminaires in shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way." Riverside County would review future implementing projects (i.e., plot plans, building permits, etc.) to ensure compliance with Riverside County Ordinance Nos. 655 and 915 and the lighting provisions of the proposed Keller Crossing Specific Plan, which would

ensure that long-term operational lighting does not adversely affect the MSHCP Conservation Area.

Night lighting along the northern edge of the development area shall be down-shielded and directed away from the MSHCP Conservation Area, including the proposed 61.42-acre MSHCP Conservation Lands included in the Project to protect species within the MSHCP Conservation Area from direct night lighting.

As such, under long-term conditions the Project would not conflict with the lighting provisions of the MSHCP, and impacts would be less than significant.

5.9.4 Noise

The MSHCP states that wildlife within the Conservation Area should not be subject to noise that would exceed residential noise standards. The MSHCP does not specify a noise level as the "residential standard," nor does the MSHCP differentiate between daytime and nighttime levels, and the standard varies depending on the Lead Agency jurisdiction.

A Project-specific Noise Impact Analysis (NIA) dated May 20, 2025, was prepared by Urban Crossroads for the proposed Project to analyze construction and operational noise effects of the Project on surrounding areas adjacent to the Project. It should be noted that the NIA was designed to address residential noise effects on humans and was not designed in consideration of noise effects on wildlife. However, as the MSHCP states that wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards, this analysis relies on the residential noise standards in evaluating the Project's construction and operational noise impacts to the on-site conservation area.

For the temporary construction-related noise impact threshold, the NIA relies on the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual*, which specifies a construction-related noise threshold of 80 dBA L_{eq}. For long-term operational noise, the MSHCP requires that wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards (i.e., 65 dBA CNEL).

As determined by the NIA the loudest phase of construction would occur during site grading activities, which would generate noise levels of up to 84.2 dBA L_{eq} at a distance of 50 feet from the source. As noted above, the Project was designed to address residential noise standards, which for construction applies an 80 dBA L_{eq} threshold based on FTA standards. However, this threshold is not applicable to biological analyses, and instead the biological analysis must only consider the noise levels and their sources, the duration of the noise, and the time of day that the noise will occur. Construction by its very nature generates noise levels that will temporarily exceed those of ambient levels and typical project operational levels. However, construction activities will occur over a short duration and only during daytime hours. Furthermore, noise levels will vary throughout construction operations depending on the equipment being used and the portions of the Project site under active construction. In addition, the Project is not located in immediate proximity to riparian habitats that support sensitive riparian species such as the least Bell's vireo or southwestern willow flycatcher. Furthermore, as discussed below in Section 6.0

of this report, the Project will incorporate measures that would avoid and minimize impacts during the breeding season, including general nesting bird surveys with temporary setback buffers from any active nests and pre-construction burrowing owl surveys with temporary setback buffers from any occupied burrows.[11] Lastly, the aforementioned species are all designated as MSHCP Covered Species and therefore impacts (including indirect noise impacts) are covered by the MSHCP provided that projects are compliant with all applicable MSHCP requirements.

Under long-term operating conditions, a majority of the Project would be developed with residential, recreational, and open space land uses, which would not have the potential for exposing onsite or offsite conservation areas to noise levels exceeding 65 dBA CNEL. There are no components of the Project with the potential for operational noise impacts affecting the on-site open space conservation area. Accordingly, long-term operation of the Project would be consistent with the UWIG requirements related to noise, and as such impacts due to a conflict with the UWIG under long-term operating conditions would be less than significant.

5.9.5 Invasive Species

Projects adjacent to the MSHCP Conservation Area 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.

Future development onsite would be subject to compliance with the proposed Keller Crossing Specific Plan (SP 380A1), which includes a listing of prohibited plant species that was added to SP 380A1 to specifically address the list of prohibited plant species included in MSHCP Volume I, Table 6-2. Riverside County would review future implementing developments (i.e., plot plans, building permits) to ensure compliance with all applicable provisions of proposed SP 380A1, thereby ensuring that future landscaping onsite does not include any of the prohibited plant species listed in Volume I, Table 6-2 of the MSHCP. Accordingly, indirect impacts due to invasive species would be less than significant.

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.

Proposed SP 380A1 includes a conceptual wall and fence plan that depicts the community fences/walls proposed for the Project, which will include installation of community steel fencing along the northern boundaries of Planning Areas 1 and 2 of SP 380A1, and requires either a block wall or decorative metal fence along the northern edge of Planning Area 5 of SP 380A1.

[11] No burrowing owls were detected within the Project site during focused burrowing owl surveys. However, because the Project site contains potential habitat for burrowing owls, pre-construction surveys are required to prevent direct impacts to owls.

In addition, an 8-foot-high MSHCP fence or wall will be installed along the MSHCP Conservation Lands boundary immediately north of the community fencing [Appendix D – Conceptual Fence and Wall Plan]. This MSHCP fence/wall will be installed in addition to the planned community walls to provide an effective barrier to public access, domestic animals, and other urban threats. Riverside County would review future implementing developments (i.e., plot plans, building permits, etc.) to ensure compliance with all applicable provisions of proposed SP 380A1, including the requirement to provide fencing along the MSHCP Conservation Area. The walls and fencing will also be maintained on an as needed basis. As such, the Project would not conflict with the MSHCP requirements related to barriers, and impacts would be less than significant.

All fencing and wall plans shall be submitted to RCA and the Wildlife Agencies for review and approval. Additionally, please note that the fencing plan should include additional information such as height of barrier, type of barrier (e.g., what will be between the metal posts), how it will be effective in controlling trespass, and when the barrier would be installed, should be included.

5.9.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area.

The Project's proposed grading plan (per SP 380A1 and TTM 38163) has been designed to avoid the proposed conservation area, in accordance with the UWIG provisions related to grading and land development.

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 as the proposed project.

Given the highly disturbed nature of the onsite and offsite Project, the onsite and offsite Project is not expected to result in cumulative impacts that would rise to a level of significance under CEQA. Additionally, any potentially significant cumulative impacts occurring as a result of the proposed onsite and offsite Project will be considered fully mitigated through participation in the MSHCP.

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

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

- **Pre-Construction Survey.** 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 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 owl 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 onsite and offsite Project 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 measure is recommended to avoid take of nesting birds. Potential impacts to native birds was not considered a biologically significant impact under CEQA; however, to comply with state law, the following is recommended:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through August 31. 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 onsite and offsite Project will impact a total of 0.36 acre of Regional Board Waters of the State and 0.44 acre of CDFW jurisdiction. There are no impacts to Corps jurisdiction within the Project Area as no Corps jurisdiction is present.

The following measure identifies mitigation proposed for impacts to jurisdictional waters.

- Impacts to 0.44 acres of CDFW jurisdiction will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by CDFW.

- Impacts to 0.36 acre of Regional Board impacts will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by the Regional Board.

6.4 MSHCP Riparian/Riverine Impacts

As noted above, the Project will impact 0.44 acre of MSHCP riparian/riverine resources within the Project (0.39 acre riverine and 0.05 acre riparian). The following measures will address these impacts. A DBESP that analyzes proposed impacts to riparian/riverine resources by the Project was approved by the RCA and Wildlife Agencies, with approval occurring on September 12, 2024. The riparian/riverine features proposed for impact will be compensated at a minimum 3:1 ratio.

Compensatory mitigation for the loss of riparian/riverine resources will include the following:

- Impacts to 0.44 acres of MSHCP riparian/riverine areas will be mitigated at 3:1 at Riverpark Mitigation Bank or other mitigation bank, in-lieu program, or mitigation site as approved by the RCA and Wildlife Agencies.

6.5 Invasives

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.

6.6 Water Quality

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to prevent impacts to water quality during construction. A Water Quality Management Plan (WQMP) will be developed to prevent pollutants from entering streambeds during construction activities.

6.7 Toxics

The proposed Project shall implement a SWPPP that will address runoff during construction and a WQMP to address runoff during operation and maintenance following construction activities.

6.8 Night Lighting

If the Project is to have lighting during night hours, it shall be shielded to avoid and minimize artificial night lighting effects and be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. If night lighting is required during construction (during placement or removal of the storm drain), shielding shall be incorporated to ensure ambient lighting in the adjacent lands, including the

MSHCP Conservation Lands, is not increased. Prior to the issuance of a grading permit by the County for any lot adjacent to Conservation Lands, a lighting plan will be submitted to the Wildlife Agencies and the RCA for review and approval.

6.9 Monitoring

Orange silt fencing will be placed to demarcate the limits of disturbance for streambed impact areas. Its placement will be over seen by a biological monitor and all preliminary vegetation removal and initial grading will be monitored by a biologist.

6.10 Post Construction Seeding

The disturbance area will be seeded using a native seed mix appropriate to upland areas within Western Riverside County.

6.11 Fence and Wall Plans

Prior to the issuance of a grading permit by the County, the Project fencing and wall plan shall be submitted to the Wildlife Agencies and the RCA for review and approval.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Project with respect to compliance 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).

7.1 Project Relationship to Reserve Assembly

The onsite Project is located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP and is included within the MSHCP Criteria Area. Portions of the offsite Project are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP.

Specifically, the onsite Project falls within all or portions of Criteria Cells 5067, 5070, 5074, which are within Cell Group U, as well as Cells 5169, 5173, 5175, and 5275. The offsite Project is also partially located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5173, 5174, 5175, 5275, and 5279. The offsite Project is also within Cell Group U [Exhibit 4A – MSHCP Overlay Map]. Portions of the Project are located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), Narrow Endemic Plant Species Survey Area (NEPSSA), and Burrowing Owl (*Athene cunicularia*) Survey Area [Exhibit 4B – MSHCP Survey Areas Map].

Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri),* little mousetail (*Myosurus minimus* ssp. *apus*), and mud nama (*Nama stenocarpum*). The site occurs within or portions of NEPSSA. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt's grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The Project is not located within the MSHCP Invertebrate, Mammalian, or Amphibian Survey Areas, but is located within Proposed Constrained Linkage 17.

The onsite and offsite project development footprint was determined to be consistent with the MSHCP as part of JPR 09-12-14-01, dated February 25, 2010, and amended July 12, 2024. The JPR Findings referenced a development footprint of 227.9 acres. This JPR also required the conservation of 61.4 acres of land within the northern portion of the onsite Project. A HANS determination letter, HANS 1995, was also approved for the Project. This letter determined that the RCA concurred with the conservation documented in the JPR.

Covered Roads

The following roads are considered as "covered roads" under the MSCHP: Winchester Road and Keller Road. Pourroy Road and the proposed Streets A-G are not considered as a covered road under the MSHCP. Please refer to Section 1.4 *Proposed Circulation Plan* for a complete description of the roads and the proposed improvements. Each covered road for this project is described below.

- **Winchester Road/Highway 79 – Modified Expressway (184'-220' Total ROW):** Winchester Road/Highway 79 is classified by the General Plan and SWAP as an "Expressway" with an ultimate ROW width ranging from 184 to 220 feet. As previously noted, the limit of widening for Winchester Road associated with the project is 184 feet of right-of-way.

  Winchester Road is a Planned Road described in MSHCP *Volume 1, Section 7.3.5*, with a covered ROW of approximately 184 feet wide. Improvements to Winchester Road would be limited to 184 feet wide, which is the MSHCP Covered ROW for Winchester Road. Table 7-4 (Planned Facilities) in the MSHCP states that Winchester Road would provide a habitat bridge overcrossing in the vicinity of Scott Road and SR 79 and a wildlife undercrossing north of Auld Road and SR 79.

  Two roadway cross-sections are proposed for Winchester Road. For the portion of Winchester Road from 0.5-mile north of Keller Road to the northern Project boundary,

Winchester Road would be improved along the western edge to include up to 55 feet of curb-adjacent landscaped parkway and up to 20 feet of paving. For the portion of Winchester Road between Keller Road and 0.5-mile north of Keller Road, Winchester Road would be improved along the western edge to provide up to 29 feet of paving and a landscaped parkway along the western edge of the roadway up to 55 feet, which would include an 8-foot-wide curb-separated sidewalk. As part of the Project, approximately 0.3-acre (up to 10 feet in width) of ROW would be dedicated to the County of Riverside and/or Caltrans. Exhibit 5 attached includes cross sections of each roadway and/or roadway classification.

- **Keller Road – Secondary Highway (100'-112' ROW)*:*** As part of the Project, Keller Road would be slightly realigned to the north through the southern portions of the Project site in order to facilitate a 90-degree intersection with Winchester Road/Highway 79. As part of the Project, a total of 100 feet of ROW would be dedicated along the portion of Keller Road that traverses the Project site, and this roadway would be improved to include 64 feet of paving (including a 12-foot-wide painted median) and 18-foot-wide parkways along each side of the roadway that would include 5-foot-wide curb-separated sidewalk along the southern side of the roadway and a 10-foot-wide curb-separated meandering decomposed granite (d.g.) trail along the northern edge of the roadway. The ROW may increase to 112 feet and consist of 76 feet of paving (curb-to-curb) at the intersection of Keller Road and Winchester Road to accommodate turn lanes.

  It should be noted that the covered maximum allowable width of Keller Road is 100 feet but Project improvements would only grade up to 88 feet [Exhibit 5]. The covered maximum allowable width of Winchester Road is 184 feet but Project improvements would only grade less than 184 feet and be within the ROW [Exhibit 5]. All road and utility improvements will be within the covered maximum allowable width of these roads except for the northwest corner of Winchester Road and Keller Road where an additional 12 feet of width on Keller Road is necessary to allow for turning lanes on the eastbound approach to SR 79. This additional 12 feet in width is within the offsite Project and within the existing ROW.

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

Due to proposed impacts to approximately 0.39 acre of riverine and 0.05 acre of riparian areas (a total of 0.44 acre) on the Project, a DBESP is required. A DBESP prepared for the Project was approved by the RCA and received final approval by the Wildlife Agencies on September 12, 2024. Given the low quality of riparian habitat as discussed above, the Project does not provide suitable habitat for riparian species including least Bell's vireo, southwestern willow flycatcher, and/or western yellow-billed cuckoo.

No vernal pools or other features that could support fairy shrimp occur on the Project; therefore, no impact to vernal pools or vernal pool species including listed fairy shrimp will occur as a result of the proposed Project.

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified 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 is located within the MSHCP CAPSSA designated Survey Area and NEPSSA designated Survey Area which targets the following species: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt's grass, Wright's trichocoronis, Parish's brittlescale, Davidson's saltscale, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, Coulter's goldfields, little mousetail, and mud nama. These species were confirmed absent through focused plant surveys conducted in 2021 and 2025. As such, the proposed Project would be consistent with *Volume I, 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 5.0 of this report, the Project will implement applicable measures as it relates to temporary construction impacts 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

Focused burrowing owl surveys were conducted for the onsite and offsite Project and no burrowing owl was detected; refer to Section 6.1 regarding additional information pertaining to burrowing owl procedures. As the on and/or offsite Project occurs within CAPSSA and NEPSSA survey areas, focused plant surveys were conducted and no CAPSSA or NEPSSA target species were observed. The onsite and offsite Project does not occur within invertebrate,

amphibian, and/or mammal survey areas; therefore, no invertebrate (Delhi Sands Flower-Loving Fly), Amphibian and/or Mammal surveys are required.

As noted above, MSHCP Objective 6 for burrowing owls requires that pre-construction surveys within 30 days prior to site grading be completed. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

A qualified biologist will conduct a pre-construction survey for burrowing owls within 30 days of initial ground-disturbing activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) 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 Wildlife Agencies and the RCA 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 burrow owl is found, the same coordination described above will be necessary.

7.6 Conclusion of MSHCP Consistency

As outlined above, the proposed onsite and offsite Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the onsite and offsite 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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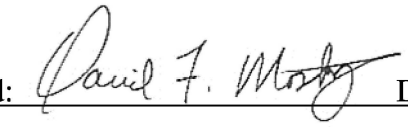
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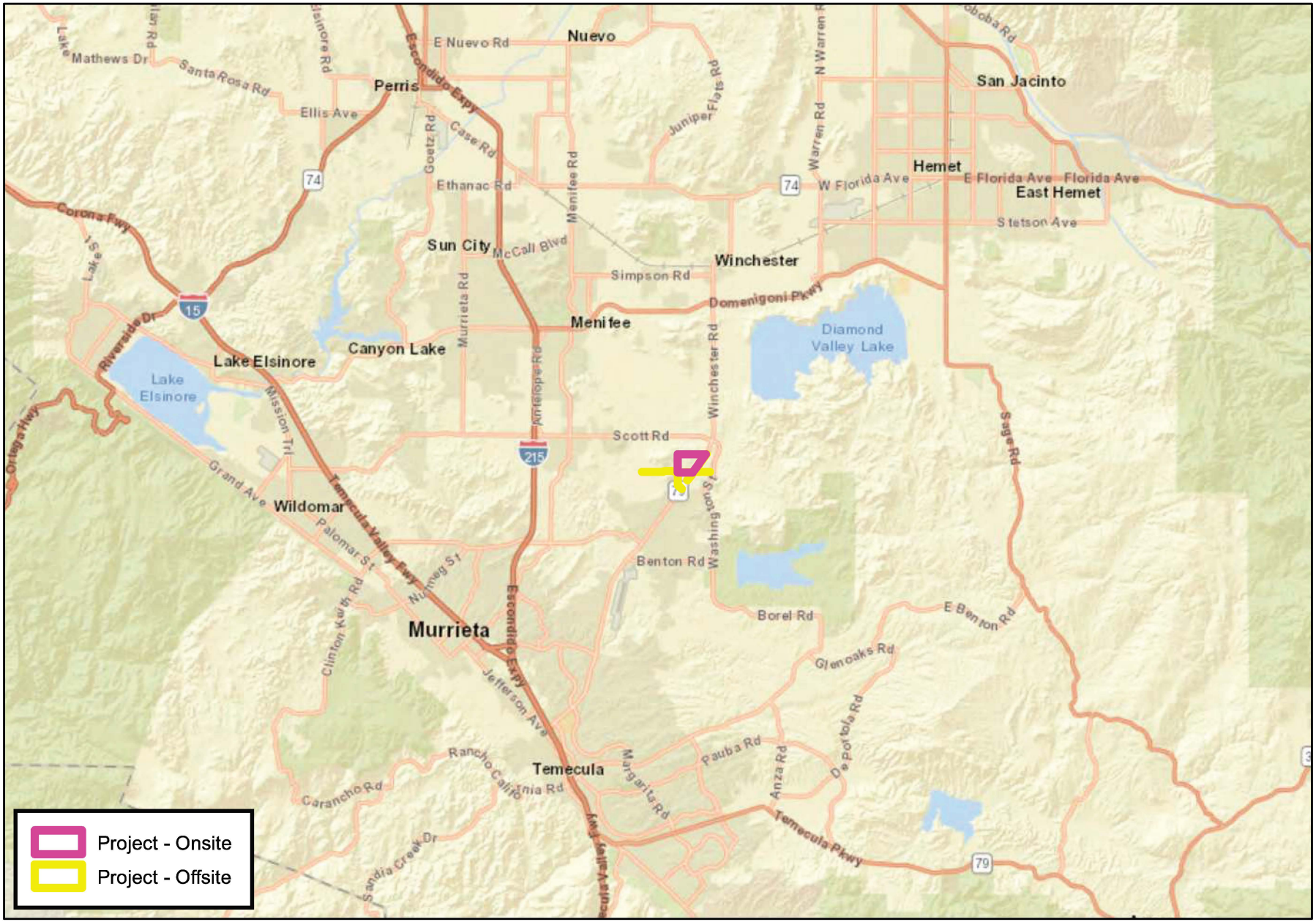
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9.0 CERTIFICATION

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: September 3, 2025

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Source: ESRI World Street Map

N

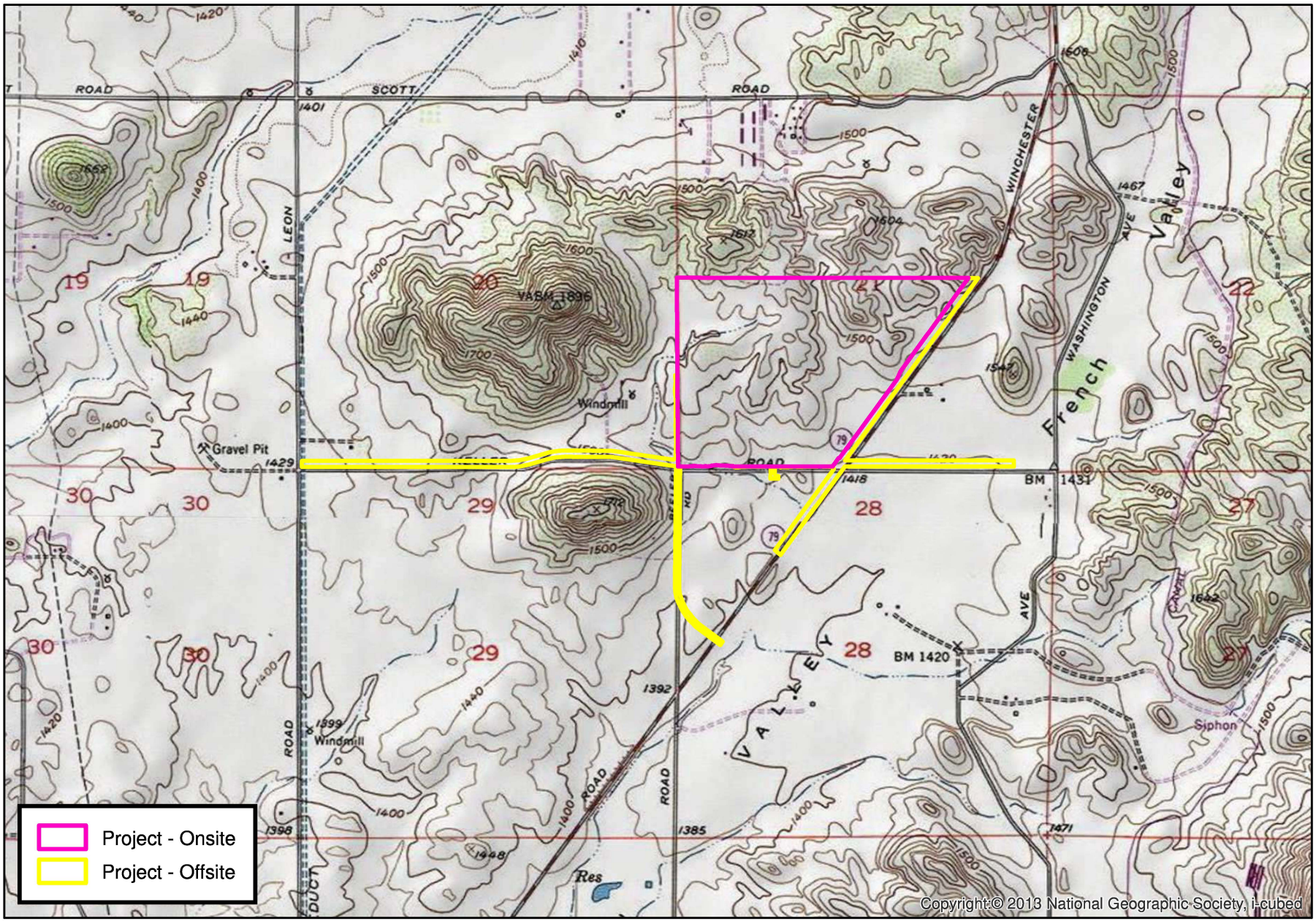
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KELLER CROSSING PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

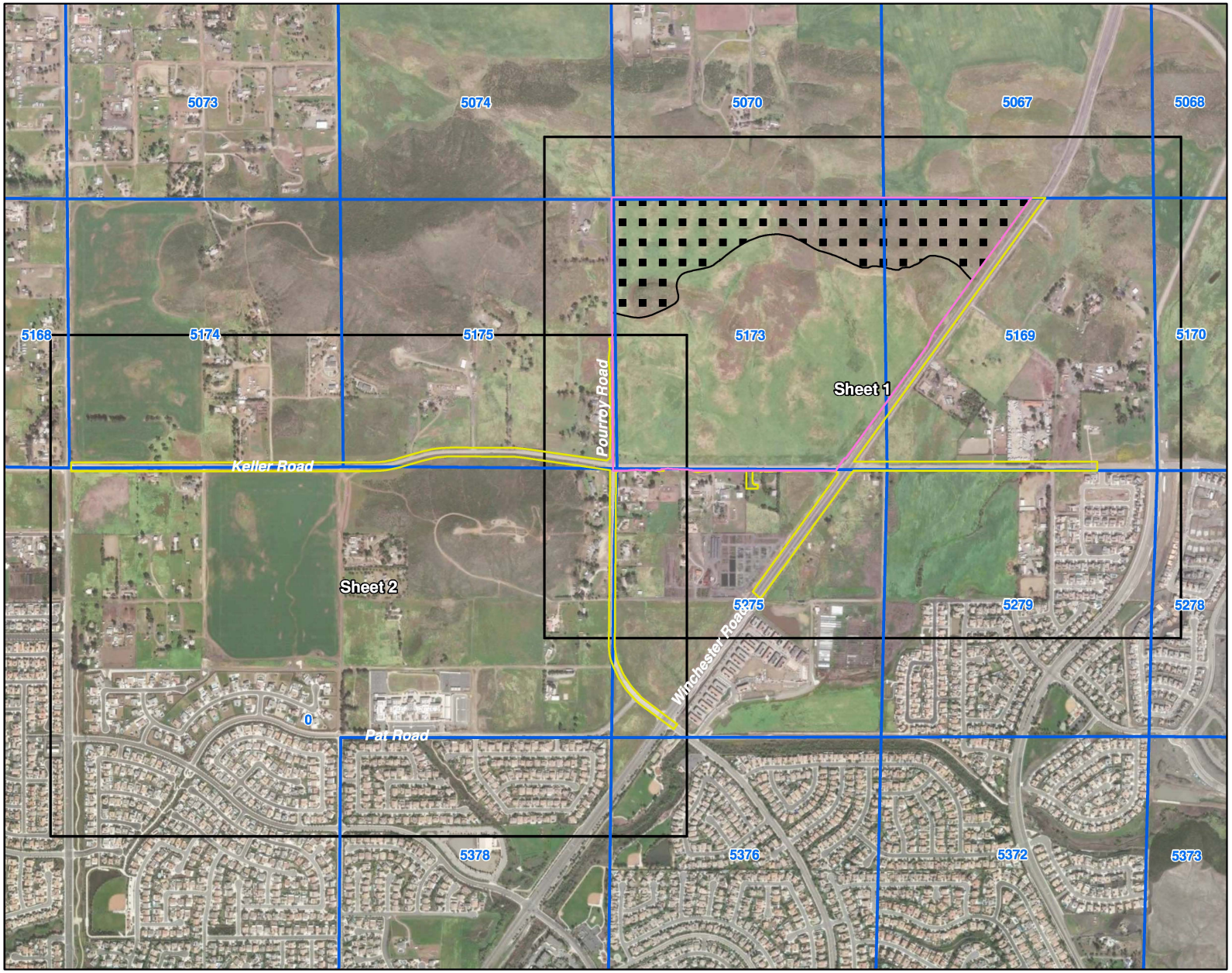


KELLER CROSSING PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project - Onsite

Project - Offsite

MSHCP Conservation

Criteria Cells

N

0 475 950 1,900

Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

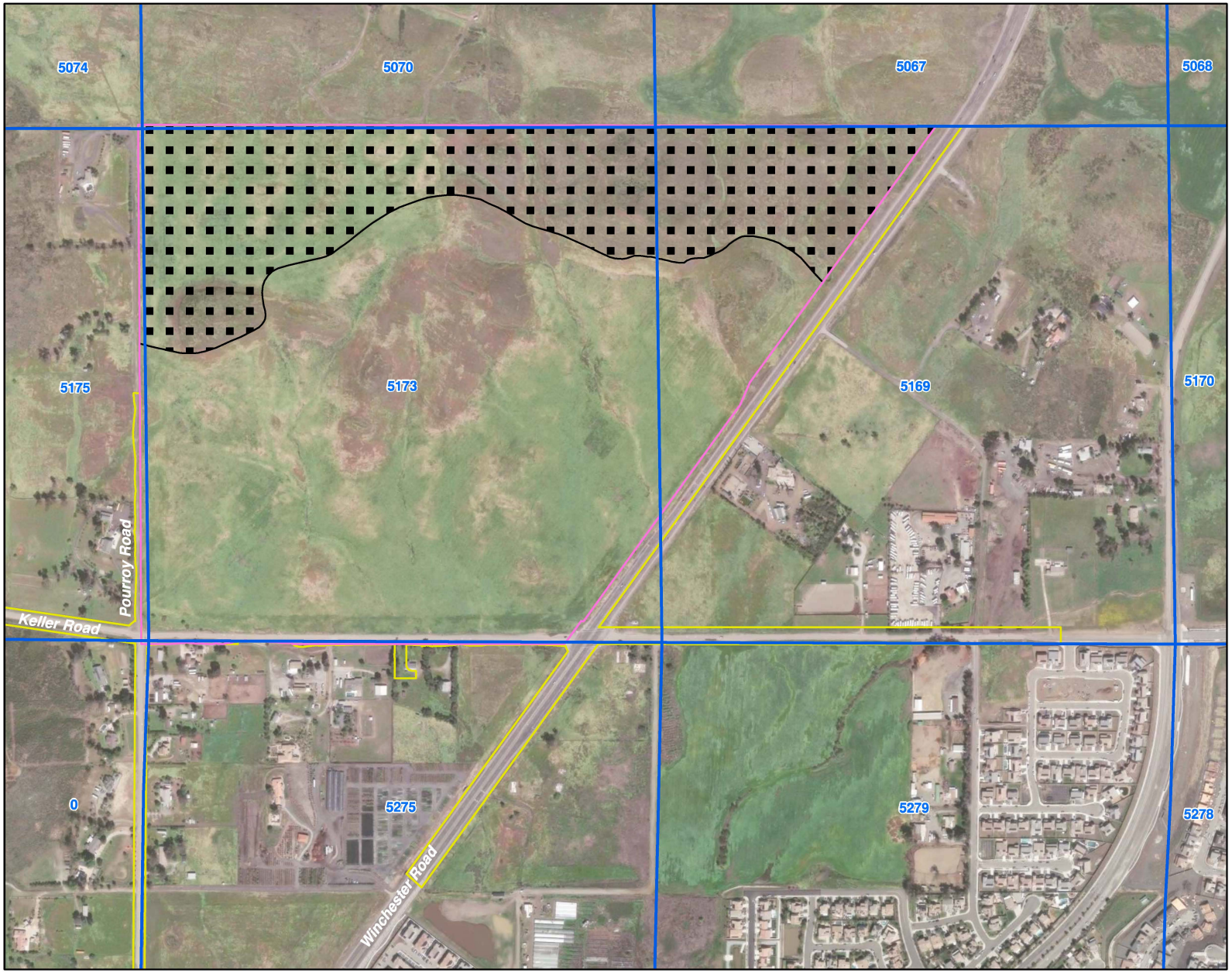
KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\446-162_Aerial_KEY.mxd



Criteria Cells
Project - Onsite
Project - Offsite
MSHCP Conservation

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\446-162_Aerial_Sheet1.mxd



Project - Onsite

Project - Offsite

MSHCP Conservation

Criteria Cells

N

0 250 500 1,000

Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

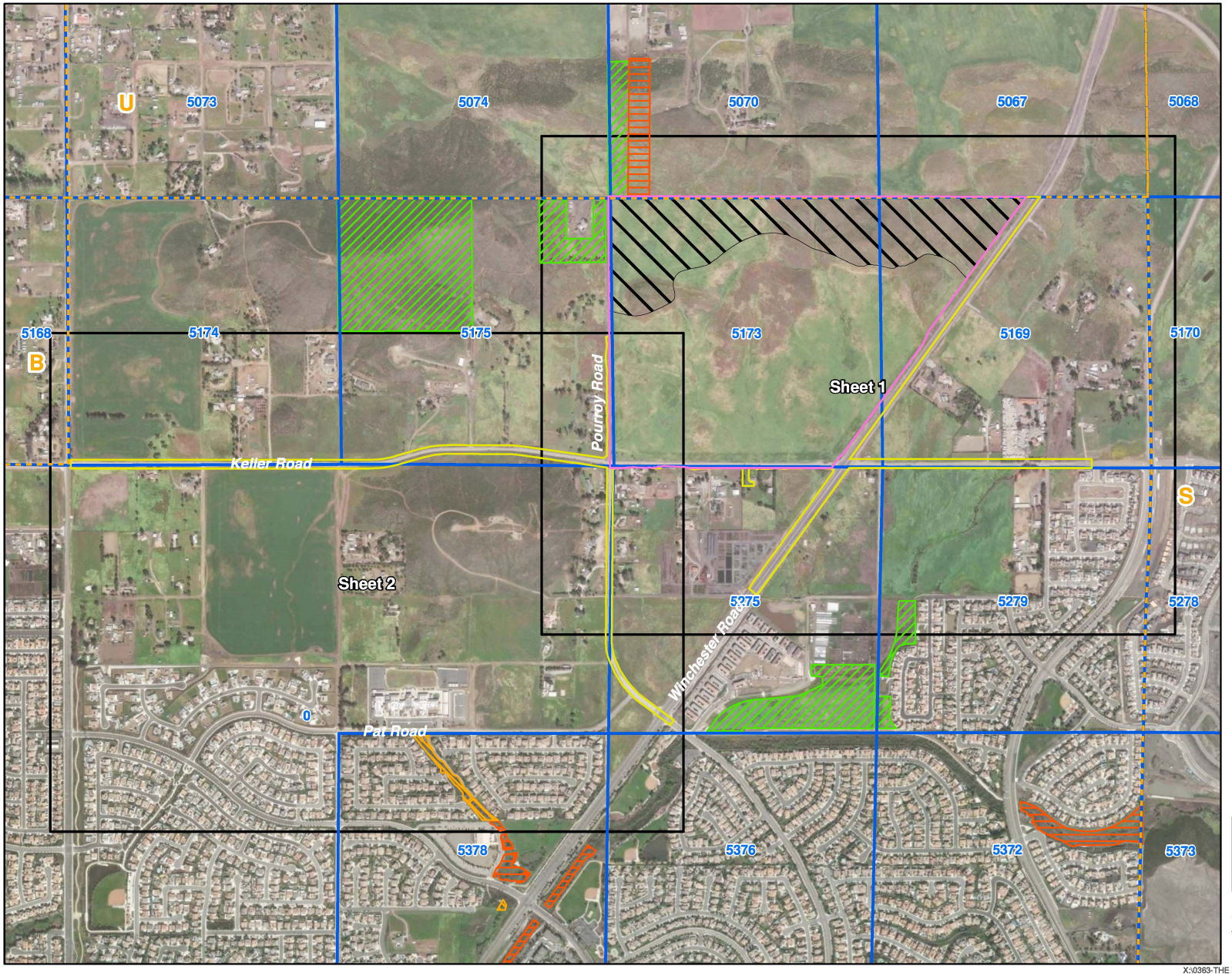
KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 2

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Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4A - Key Map

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Project - Onsite
Project - Offsite
MSHCP Cell Groups
Criteria Cells
MSHCP Conservation
Additional Reserve Lands (ARL)
Conservation Easements (CE)

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4A - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Overlay_Sheet1.mxd



Project - Onsite
Project - Offsite
MSHCP Conservation
MSHCP Cell Groups
Criteria Cells
Additional Reserve Lands (ARL)
Conservation Easements (CE)
RCA MOU

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

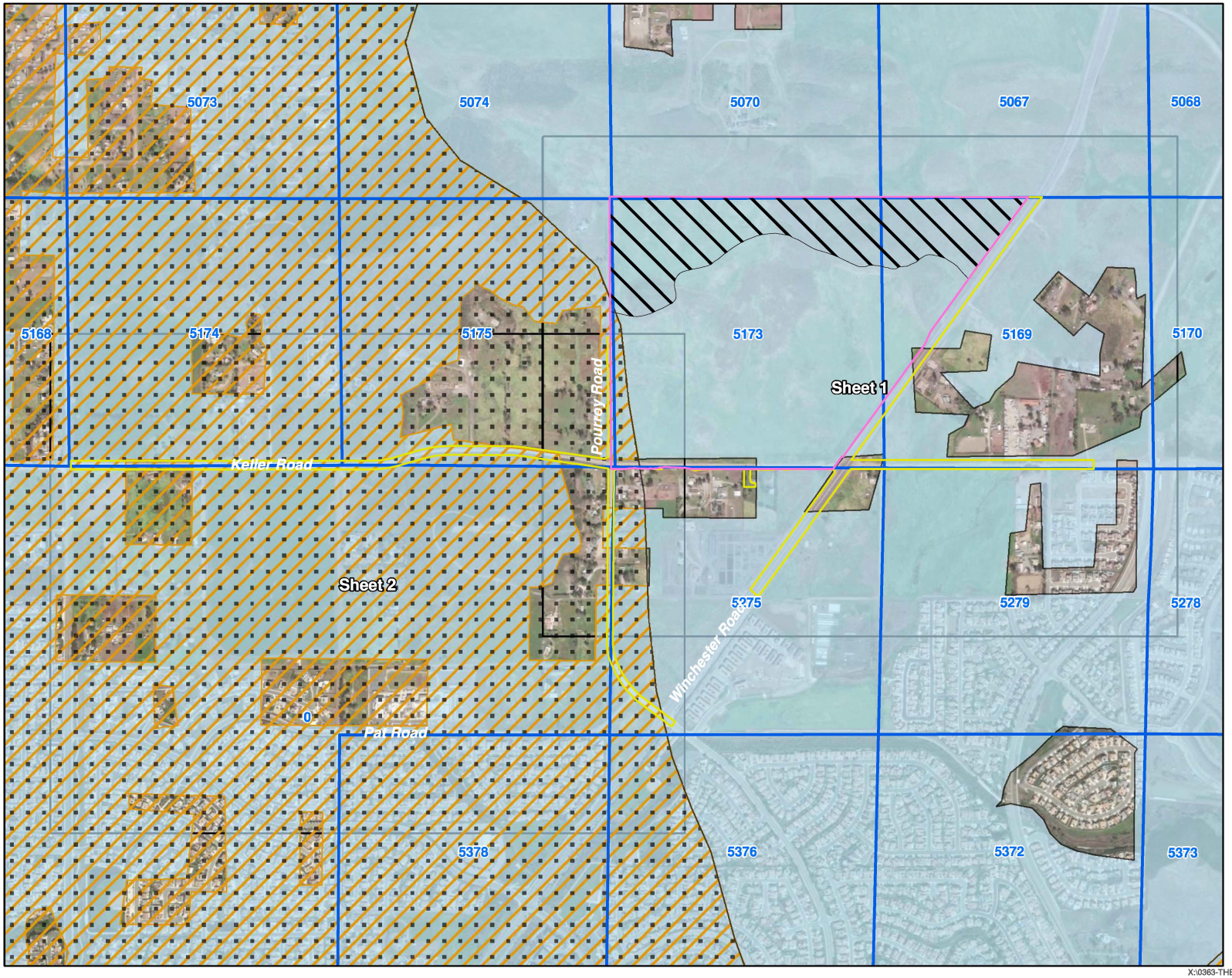
KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4A - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Overlay_Sheet2.mxd



- Project - Onsite
- Project - Offsite
- MSHCP Conservation
- Criteria Cells
- Criteria Area Species Survey
- Narrow Endemic Plant Species Survey Areas
- Species Survey Areas Burrowing Owls

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

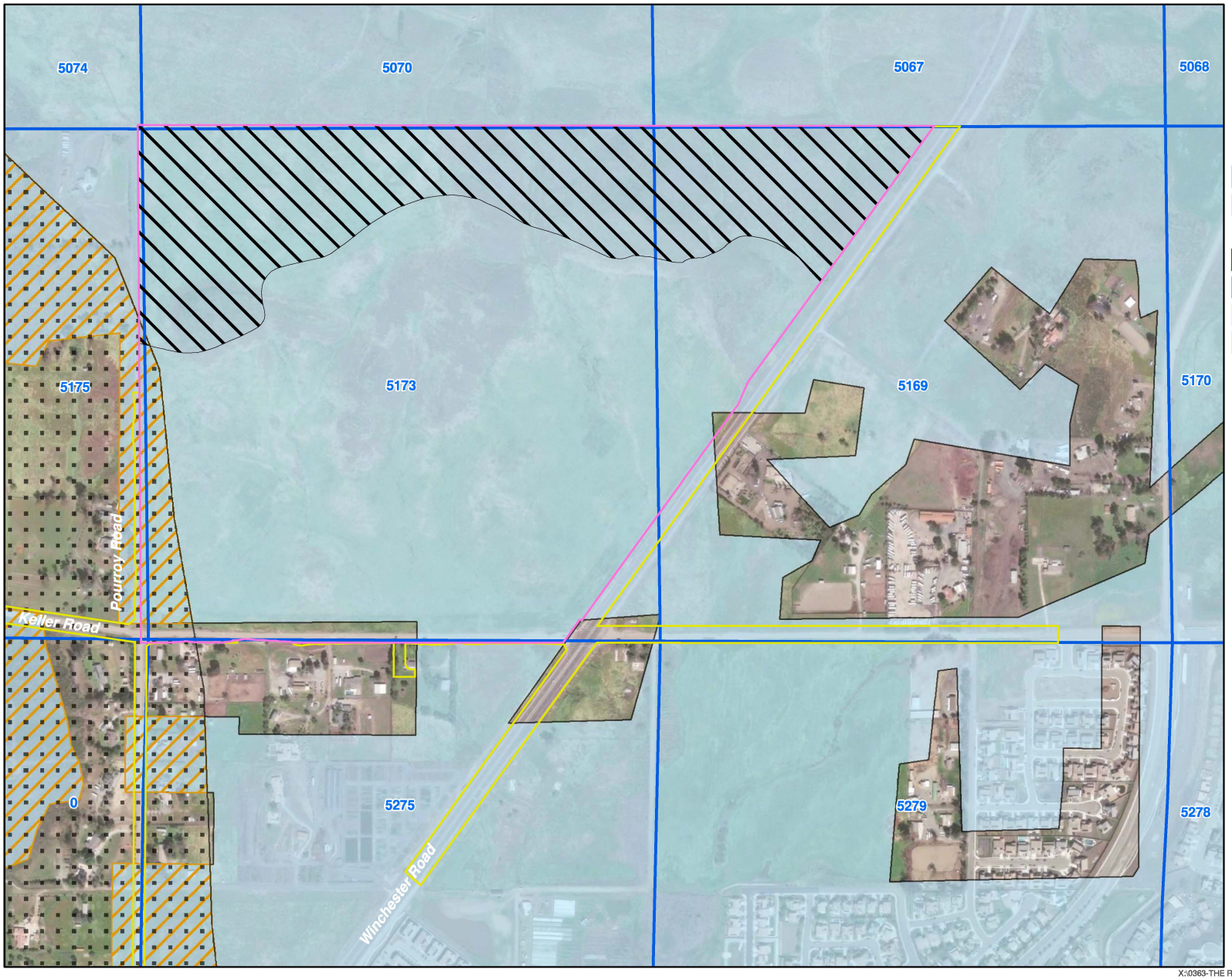
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 4B - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Survey_KEY.mxd



Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

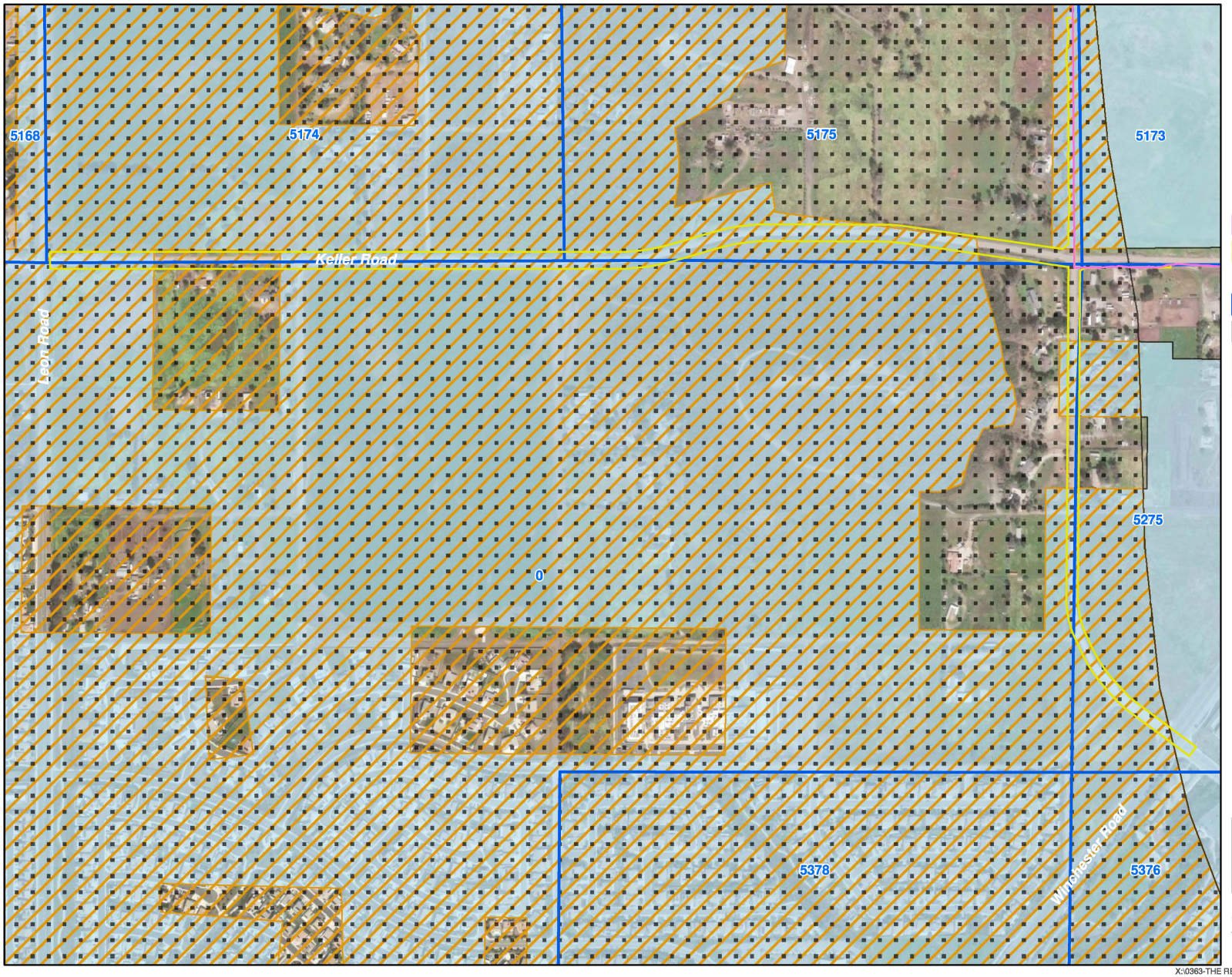
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 4B - Sheet 1

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Project - Onsite
Project - Offsite
MSHCP Conservation
Criteria Cells
Criteria Area Species Survey
Narrow Endemic Plant Species Survey Areas
Species Survey Areas Burrowing Owls

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

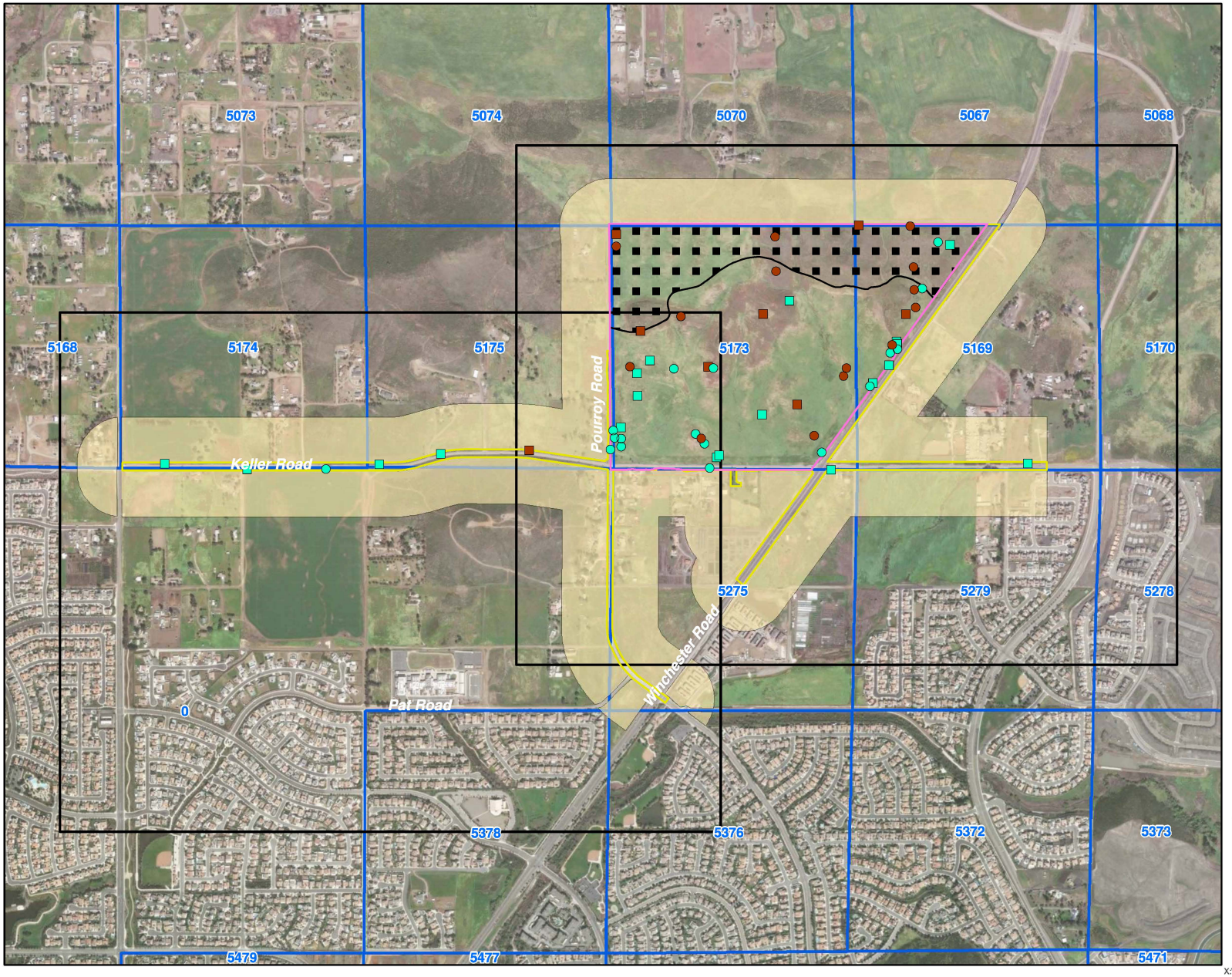
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 4B - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Survey_Sheet2.mxd



- Project - Onsite
- Project - Offsite
- MSHCP Conservation
- Criteria Cells
- 500' Visual Survey Area
- Burrow (2021 Survey)
- Burrow (2025 Survey)
- Burrow Complex (2021 Survey)
- Burrow Complex (2025 Survey)

N

0 525 1,050 2,100
Feet

1 inch = 1,050 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

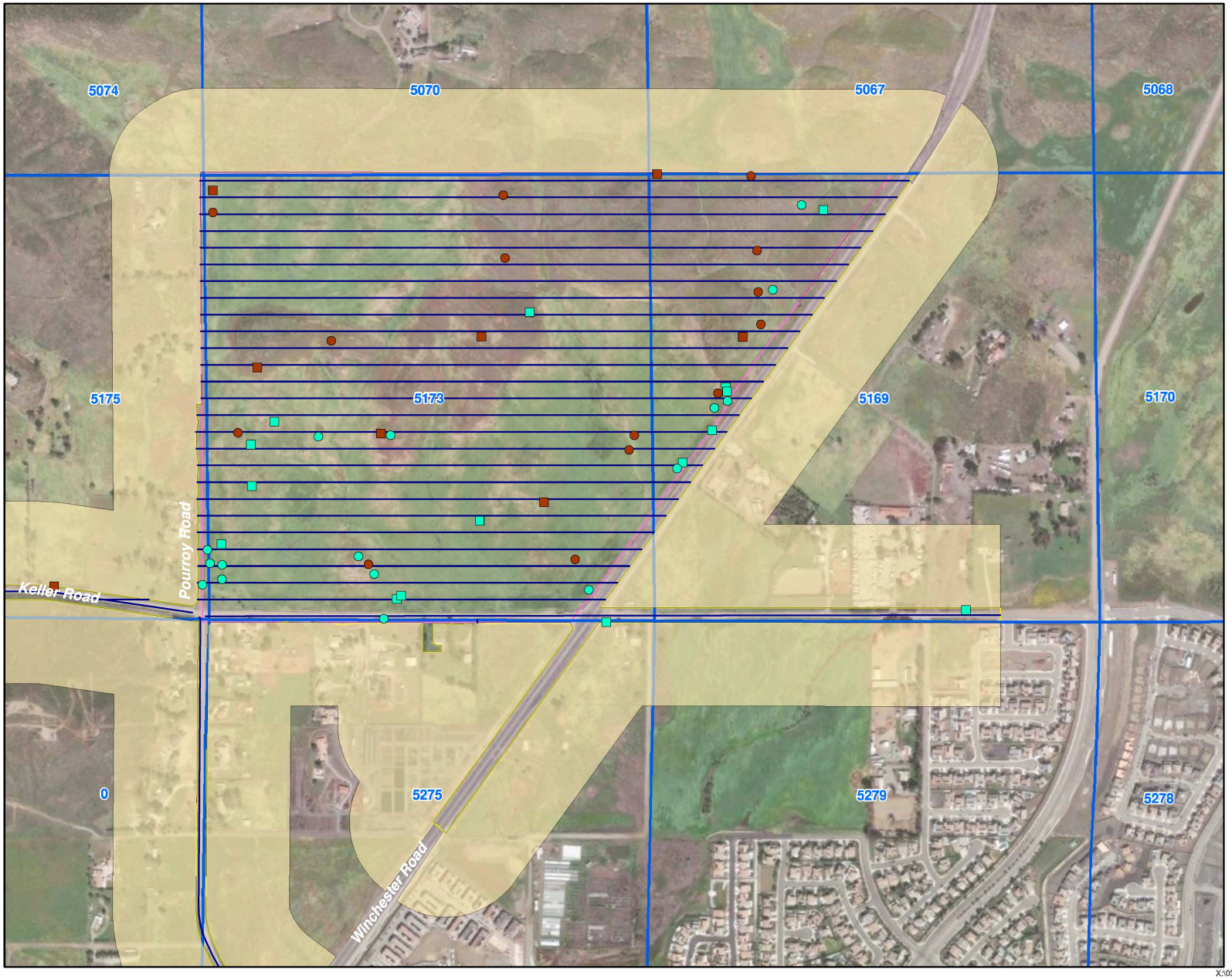
KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 5 - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\BUOWGIS\446-162_BUOW_KEY.mxd



Project - Onsite
Project - Offsite
Criteria Cells
500' Visual Survey Area
Transect
Burrow (2021 Survey)
Burrow (2025 Survey)
Burrow Complex (2021 Survey)
Burrow Complex (2025 Survey)

N

0 287.5 575 1,150
Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

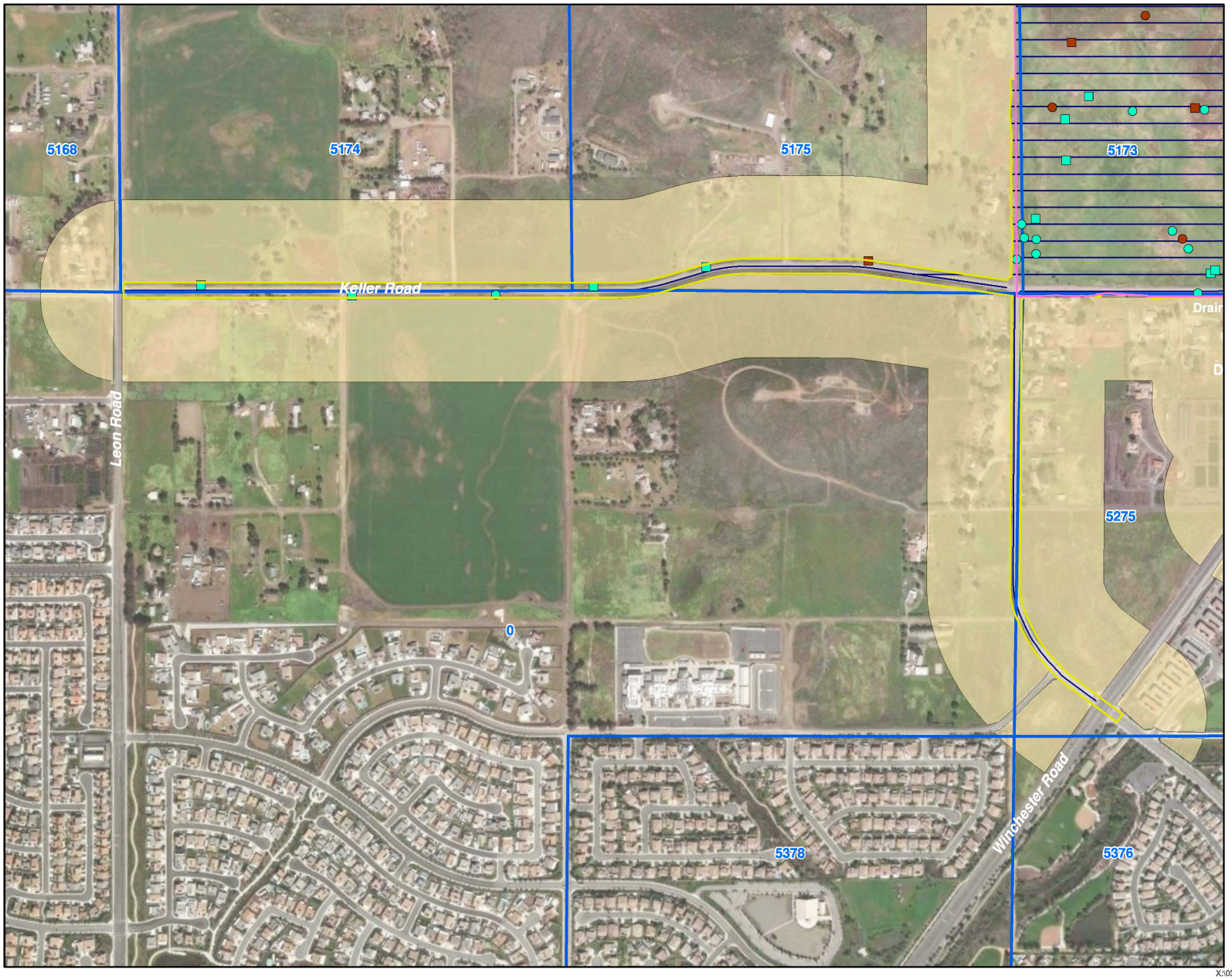
KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 5 - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\BUOWGIS\446-162_BUOW_Sheet1.mxd



Project - Onsite
Project - Offsite
Criteria Cells
500' Visual Survey Area
Transect
Burrow (2021 Survey)
Burrow (2025 Survey)
Burrow Complex (2021 Survey)
Burrow Complex (2025 Survey)

N

0 287.5 575 1,150
Feet

1 inch = 575 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

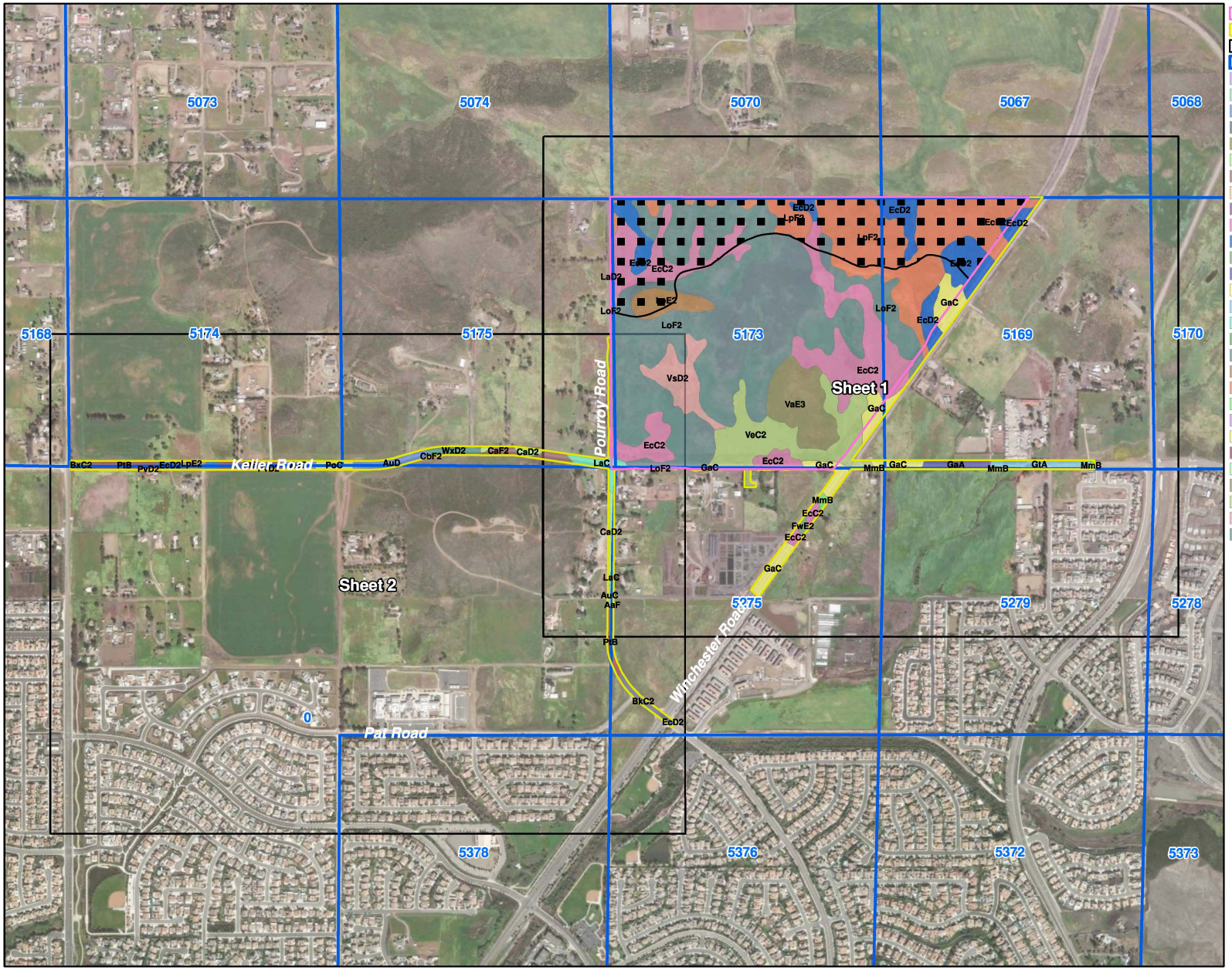
KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 5 - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\BUOWGIS\446-162_BUOW_Sheet2.mxd



- Project - Onsite
- Project - Offsite
- MSHCP Conservation
- Criteria Cells
- AaF - Altamont clay, 25 to 50 percent slopes
- AuC - Auld clay, 2 to 8 percent slopes
- AuD - Auld clay, 8 to 15 percent slopes
- BkC2 - Buchenau silt loam, 2 to 8 percent slopes, eroded
- BxC2 - Buren loam, deep, 2 to 8 percent slopes, eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- Cf - Chino silt loam, drained, saline-alkali
- EcC2 - Escondido fine sandy loam, 2 to 8 percent slopes, eroded
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, eroded
- FwE2 - Friant fine sandy loam, 5 to 25 percent slopes, eroded
- GaA - Garretson very fine sandy loam, 0 to 2 percent slopes
- GaC - Garretson very fine sandy loam, 2 to 8 percent slopes
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent slopes
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LoF2 - Lodo gravelly loam, 15 to 50 percent slopes, eroded
- LpE2 - Lodo rocky loam, 8 to 25 percent slopes, eroded
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded
- PoC - Porterville clay, 0 to 8 percent slopes
- PtB - Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes
- PvD2 - Porterville gravelly clay, moderately deep, 2 to 15 percent slopes, eroded
- VaE3 - Vallecitos loam, 8 to 25 percent slopes, severely eroded
- VeC2 - Vallecitos loam, thick solum variant, 2 to 8 percent slopes, eroded
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- WxD2 - Wyman fine sandy loam, 8 to 15 percent slopes, eroded

N

0 475 950 1,900

Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

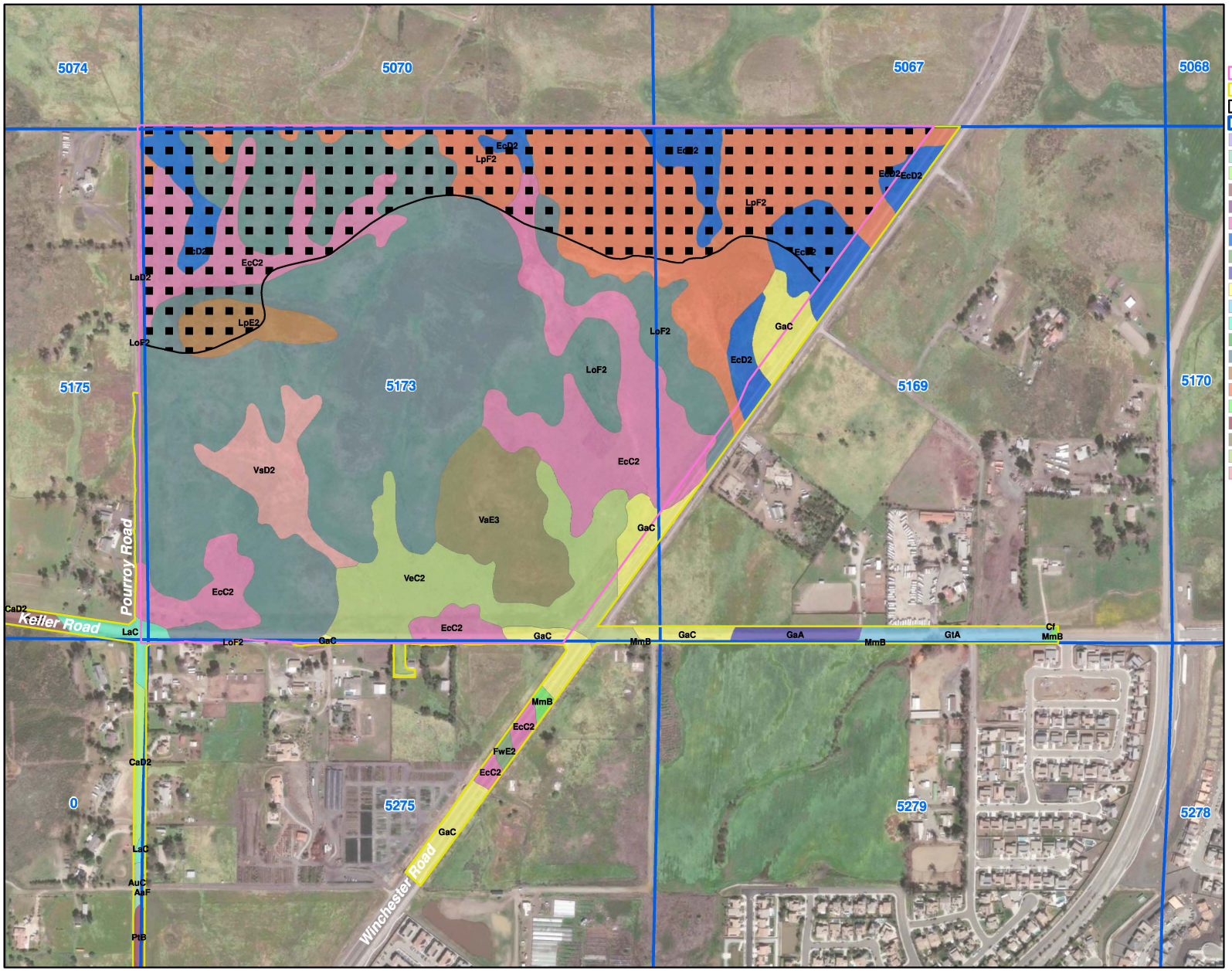
KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\SoilsGIS\446-162_Soils_KEY.mxd



- Project - Onsite
- Project - Offsite
- MSHCP Conservation
- Criteria Cells
- AaF - Altamont clay, 25 to 50 percent slopes
- AuC - Auld clay, 2 to 8 percent slopes
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- Cf - Chino silt loam, drained, saline-alkali
- EcC2 - Escondido fine sandy loam, 2 to 8 percent slopes, eroded
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, eroded
- FwE2 - Friant fine sandy loam, 5 to 25 percent slopes, eroded
- GaA - Garretson very fine sandy loam, 0 to 2 percent slopes
- GaC - Garretson very fine sandy loam, 2 to 8 percent slopes
- GtA - Grangeville fine sandy loam, drained, 0 to 2 percent slopes
- LaC - Las Posas loam, 2 to 8 percent slopes
- LaD2 - Las Posas loam, 8 to 15 percent slopes, eroded
- LoF2 - Lodo gravelly loam, 15 to 50 percent slopes, eroded
- LpE2 - Lodo rocky loam, 8 to 25 percent slopes, eroded
- LpF2 - Lodo rocky loam, 25 to 50 percent slopes, eroded
- MmB - Monserate sandy loam, 0 to 5 percent slopes
- PtB - Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes
- VaE3 - Vallecitos loam, 8 to 25 percent slopes, severely eroded
- VeC2 - Vallecitos loam, thick solum variant, 2 to 8 percent slopes, eroded
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\SoilsGIS\446-162_Soils_Sheet1.mxd



- Project - Onsite
- Project - Offsite
- Criteria Cells
- AaF - Altamont clay, 25 to 50 percent slopes
- AuC - Auld clay, 2 to 8 percent slopes
- AuD - Auld clay, 8 to 15 percent slopes
- BkC2 - Buchenau silt loam, 2 to 8 percent slopes, eroded
- BxC2 - Buren loam, deep, 2 to 8 percent slopes, eroded
- CaD2 - Cajalco fine sandy loam, 8 to 15 percent slopes, eroded
- CaF2 - Cajalco fine sandy loam, 15 to 35 percent slopes, eroded
- CbF2 - Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded
- EcC2 - Escondido fine sandy loam, 2 to 8 percent slopes, eroded
- EcD2 - Escondido fine sandy loam, 8 to 15 percent slopes, eroded
- LaC - Las Posas loam, 2 to 8 percent slopes
- LoF2 - Lodo gravelly loam, 15 to 50 percent slopes, eroded
- LpE2 - Lodo rocky loam, 8 to 25 percent slopes, eroded
- PoC - Porterville clay, 0 to 8 percent slopes
- PtB - Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes
- PvD2 - Porterville gravelly clay, moderately deep, 2 to 15 percent slopes, eroded
- VsD2 - Vista coarse sandy loam, 8 to 15 percent slopes, eroded
- WxD2 - Wyman fine sandy loam, 8 to 15 percent slopes, eroded

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

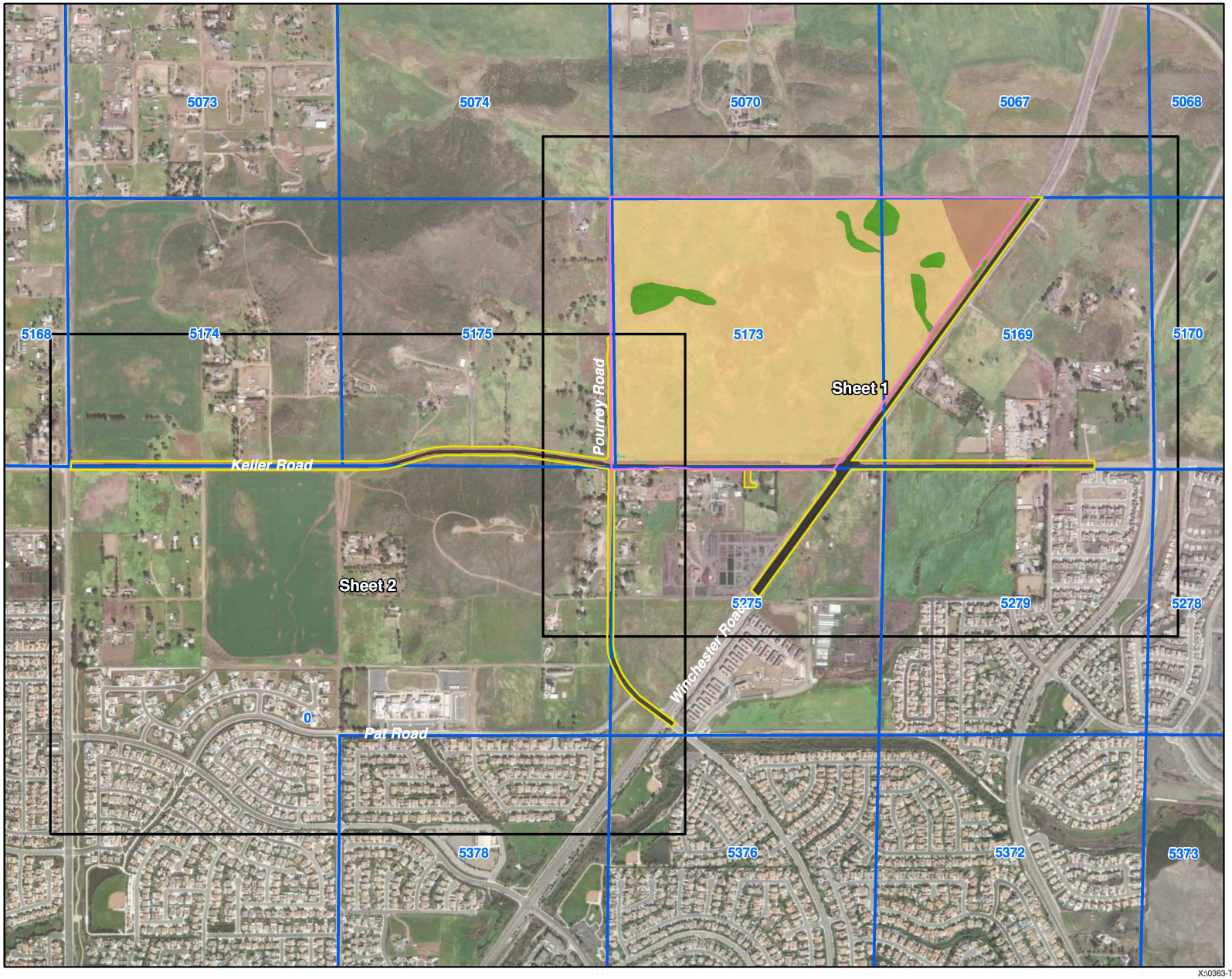
KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\SoilsGIS\446-162_Soils_Sheet2.mxd



Project - Onsite
Project - Offsite
Criteria Cells
Agriculture
Developed
Disturbed
Disturbed Buckwheat Scrub
Disturbed Mulefat Scrub
Ornamental

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

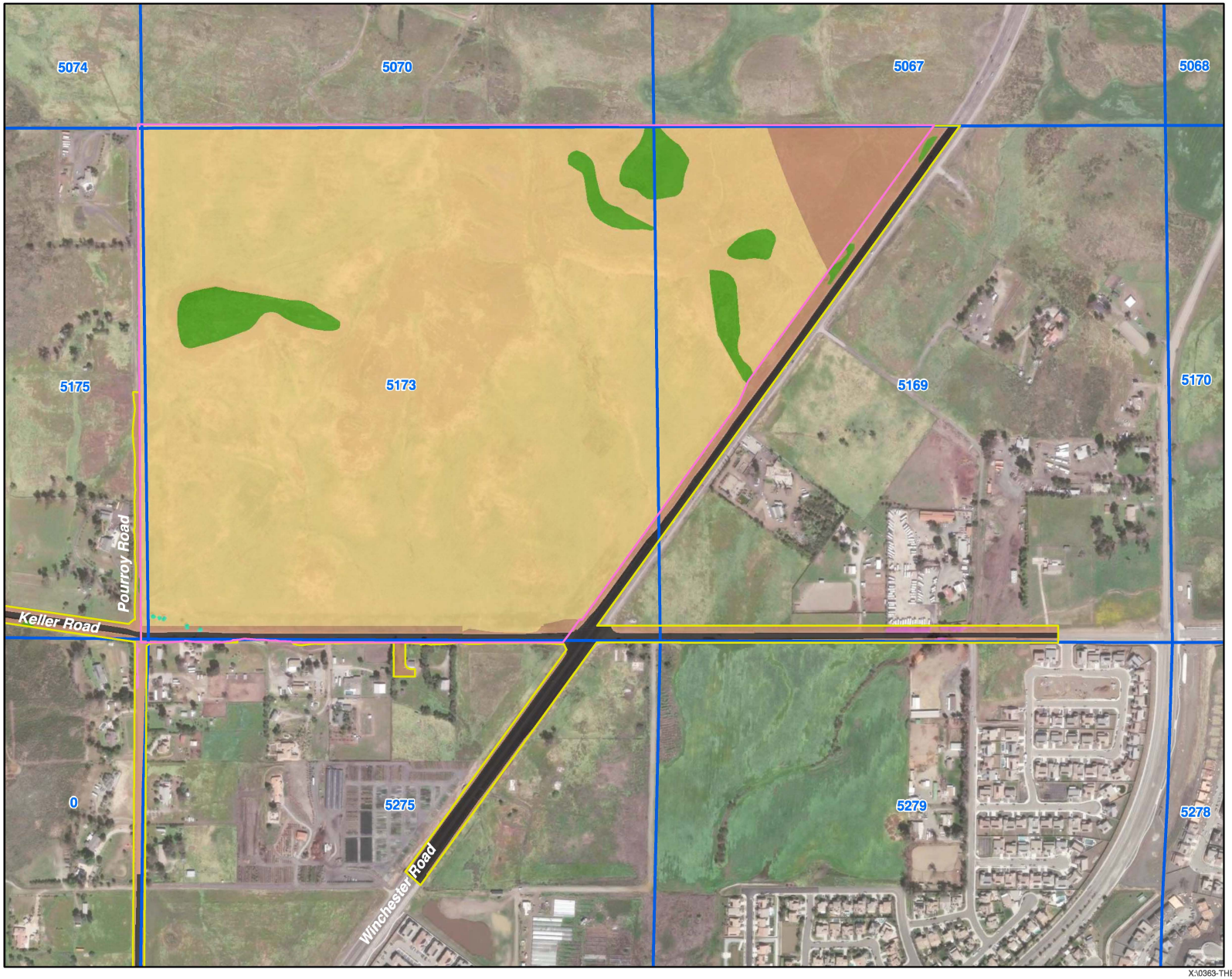
KELLER CROSSING PROJECT

Vegetation/Land Use Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\VegetationGIS\446-162_Veg_KEY_REV1.mxd



- Project - Onsite
- Project - Offsite
- Criteria Cells
- Agriculture
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Disturbed Mulefat Scrub
- Ornamental

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

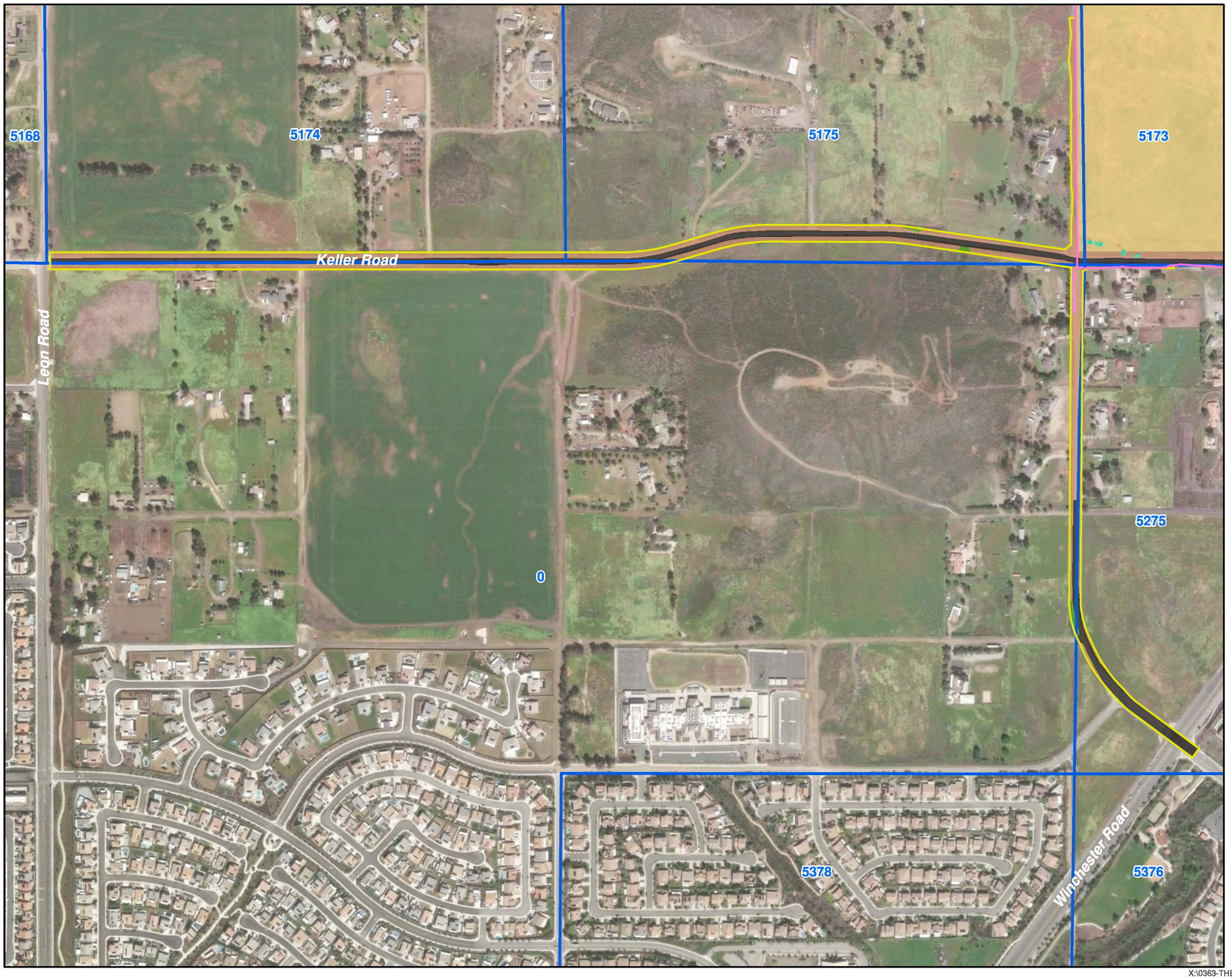
KELLER CROSSING PROJECT

Vegetation/Land Use Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\VegetationGIS\446-162_Veg_Sheet1_REV1.mxd



- Project - Onsite
- Project - Offsite
- Criteria Cells
- Agriculture
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Disturbed Mulefat Scrub
- Ornamental

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 22, 2025

KELLER CROSSING PROJECT

Vegetation/Land Use Map

GLENN LUKOS ASSOCIATES

Exhibit 7- Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\VegetationGIS\446-162_Veg_Sheet2_REV1.mxd



Photograph 1: 02/03-21. Drainage A side tributary looking upstream and disturved uplands.



Photograph 2: 02/03/21. Start of Drainage A looking downstream from edge of Pourroy Road. and disturbed upland areas.



Photograph 3: 02/03/21. Drainage A and disturbed uplands looking upstream at riparian habitat.



Photograph 4: 02/03/21. Looking at downstream extent of Drainage B towards terminus at culvert and its associated uplands.

GLENN LUKOS ASSOCIATES

Exhibit 8 – Page 1

KELLER CROSSING PROJECT

Site Photographs



Photograph 5: 02/03/21. Middle portion of Drainage B and uplands looking downstream.



Photograph 6: 02/03/21. Upper portion of Drainage C looking upstream.



Photograph 7: 02/03/21. Lower portion of Drainage C and disturbed uplands looking downstream,



Photograph 8: 02/03/21. Upper portion of Drainage C and uplands looking downstream.

KELLER CROSSING PROJECT
Site Photographs



Photograph 9: 02/03/21. Drainage D and disturbed uplands looking upstream towards start of drainage.



Photograph 10: 02/03/21. Middle portion of Drainage D looking downstream.



Photograph 11: 02/03/21. View of Drainage D terminus where flow sign is absent. Note the disturbed nature of the site in the background.



Photograph 12: 02/03/21. Upper portion of Drainage E looking upstream and disturbed uplands.

KELLER CROSSING PROJECT
Site Photographs



Photograph 13: 02/03/21. Middle segment of Drainage E.



Photograph 14: 02/803/21. View of Drainage E terminus where flow sign dissipates as sheet flow.



Photograph 15: 02/03/21. Start of Drainage F looking upstream towards Project boundary fence. Note disturbed condition of the site.



Photograph 16: 02/03/21. View of Drainage F looking downstream towards confluence with southwest tributary. Note the disturbed condition of the uplands.

KELLER CROSSING PROJECT
Site Photographs



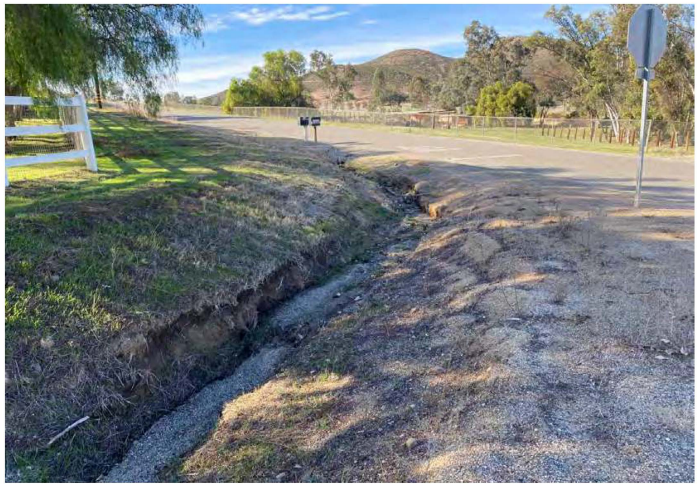
Photograph 17: 02/03/21. Upper portion of Drainage G looking downstream.



Photograph 18: 02/03/21. Downstream end of Drainage G looking offsite at concrete culvert inlet.



Photograph 19: 02/03/21. View of Drainage H within offsite survey area.



Photograph 20: 02/03/21. Roadside ephemeral Drainage I located in offsite survey area.

GLENN LUKOS ASSOCIATES

KELLER CROSSING PROJECT

Site Photographs

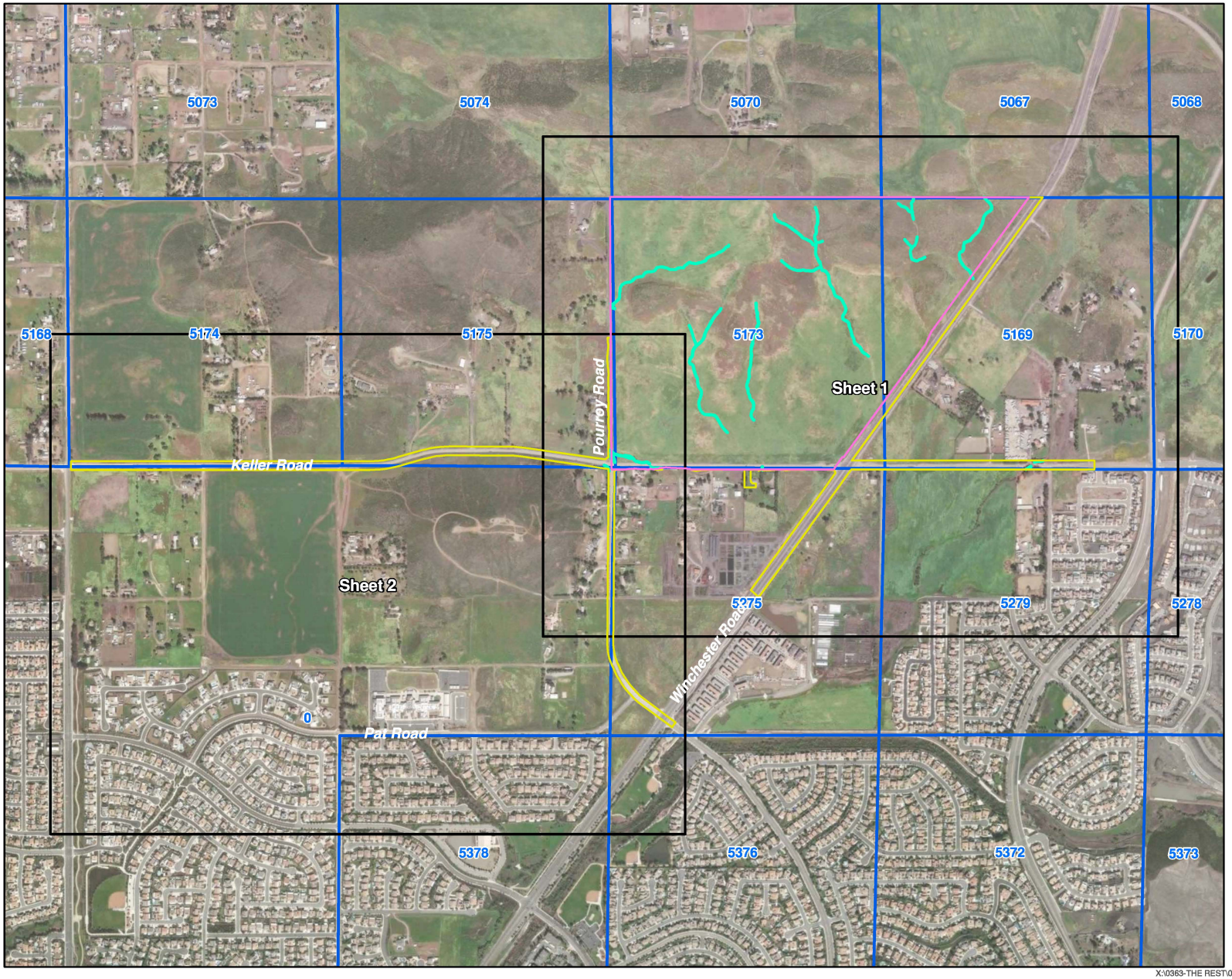


Photograph 21: 02/03/21. View depicting offsite portion of Drainage A looking south.



Photograph 22: 02/03/21. Looking northwesterly towards offsite portion of downstream end of Drainage A. Note, there is no discernible stream course in foreground and area is disturbed in background.

KELLER CROSSING PROJECT
Site Photographs



Project - Onsite
Project - Offsite
Criteria Cells
Non-Wetland Waters of the State

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9A - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_RWQCB_KEY_REV1.mxd



Project - Onsite

Project - Offsite

Criteria Cells

Non-Wetland Waters of the State

Width of Feature in Feet

Photo Location

N

0 250 500 1,000

Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9A - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_RWQCB_Sheet1_REV1.mxd



Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

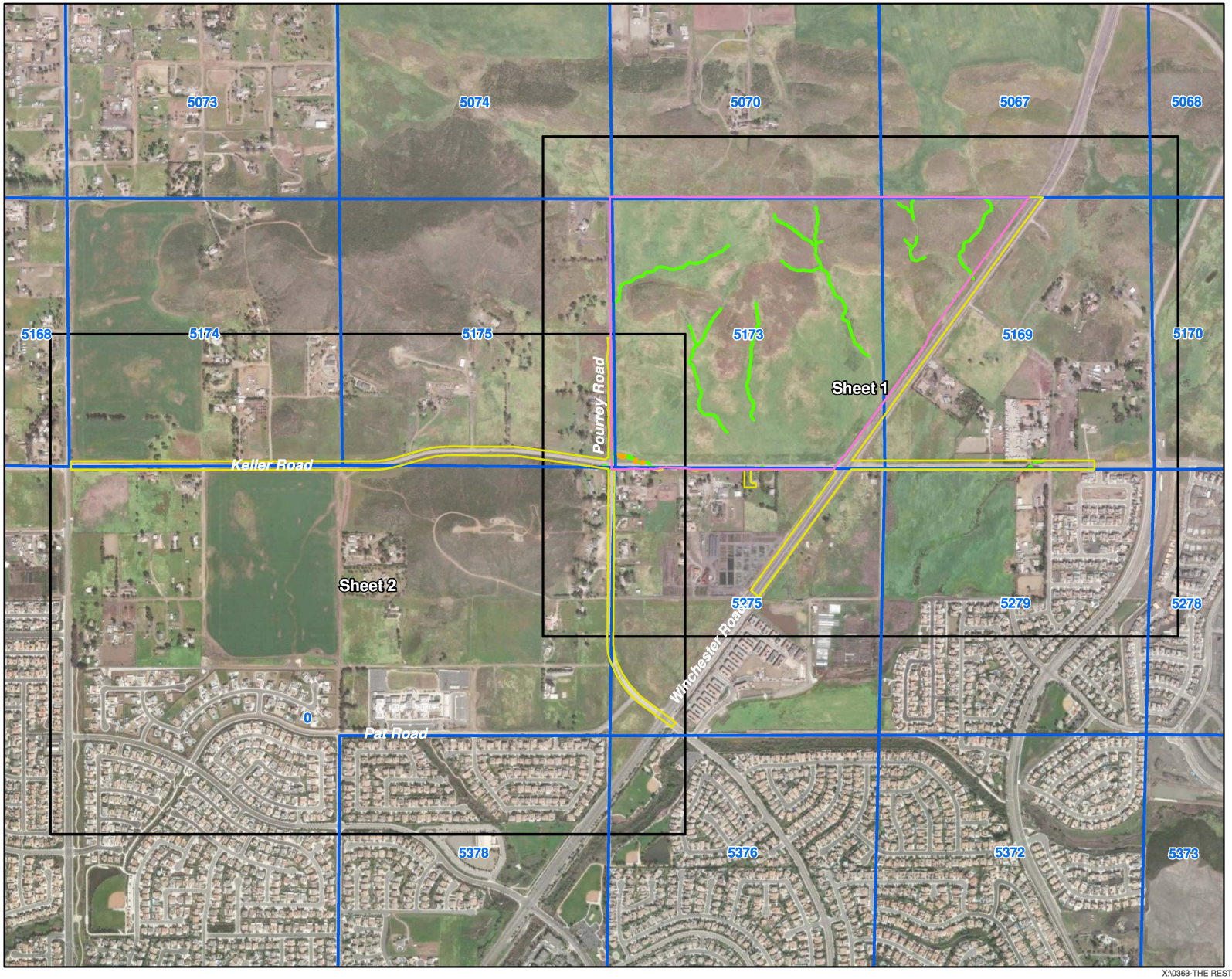
KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9A - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_RWQCB_Sheet2_REV1.mxd



Project - Onsite
Project - Offsite
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_CDFW_KEY_REV1.mxd



Project - Onsite
Project - Offsite
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian
Width of Non-Riparian Stream in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

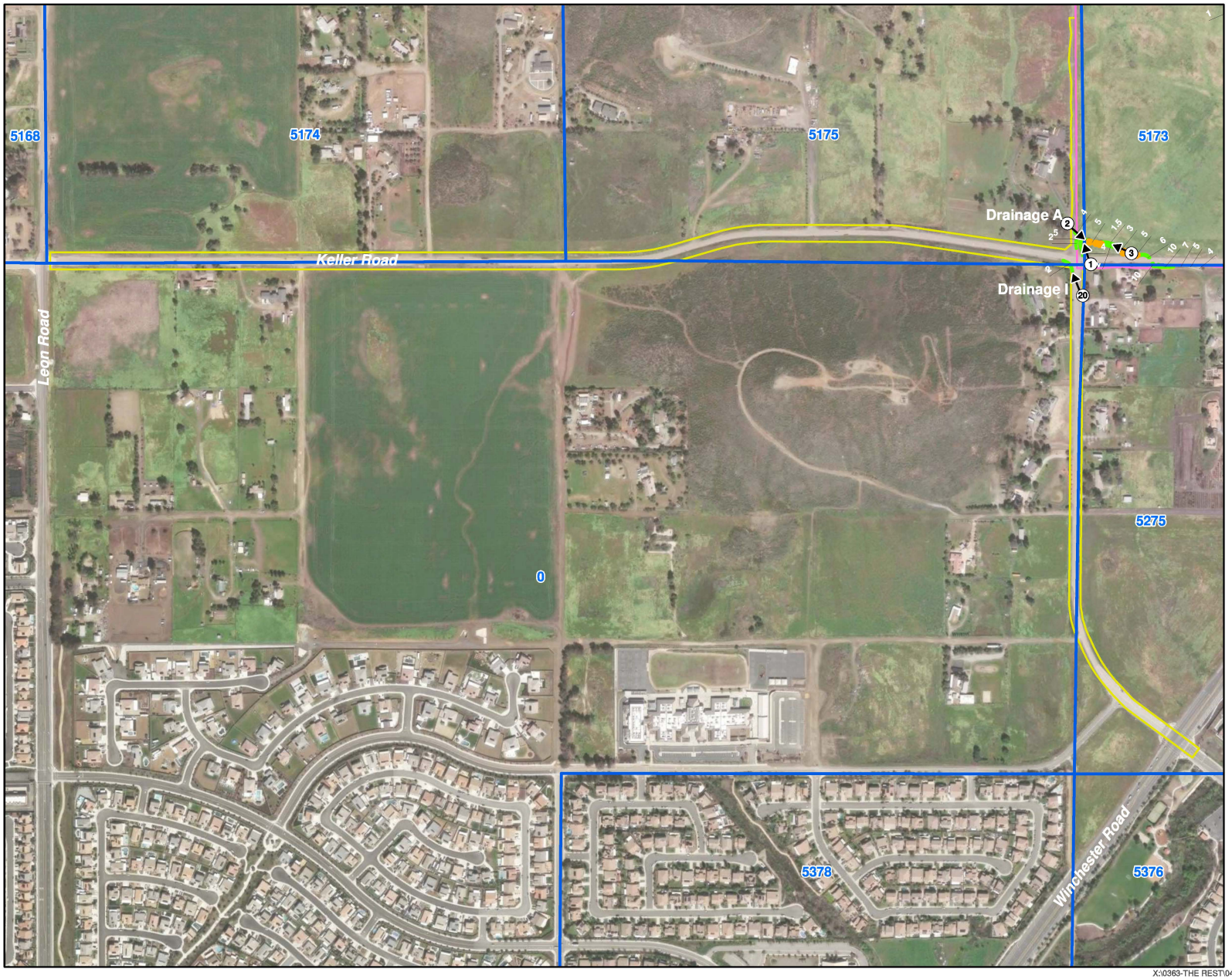
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_CDFW_Sheet1_REV1.mxd



Project - Onsite
Project - Offsite
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian
Width of Non-Riparian Stream in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

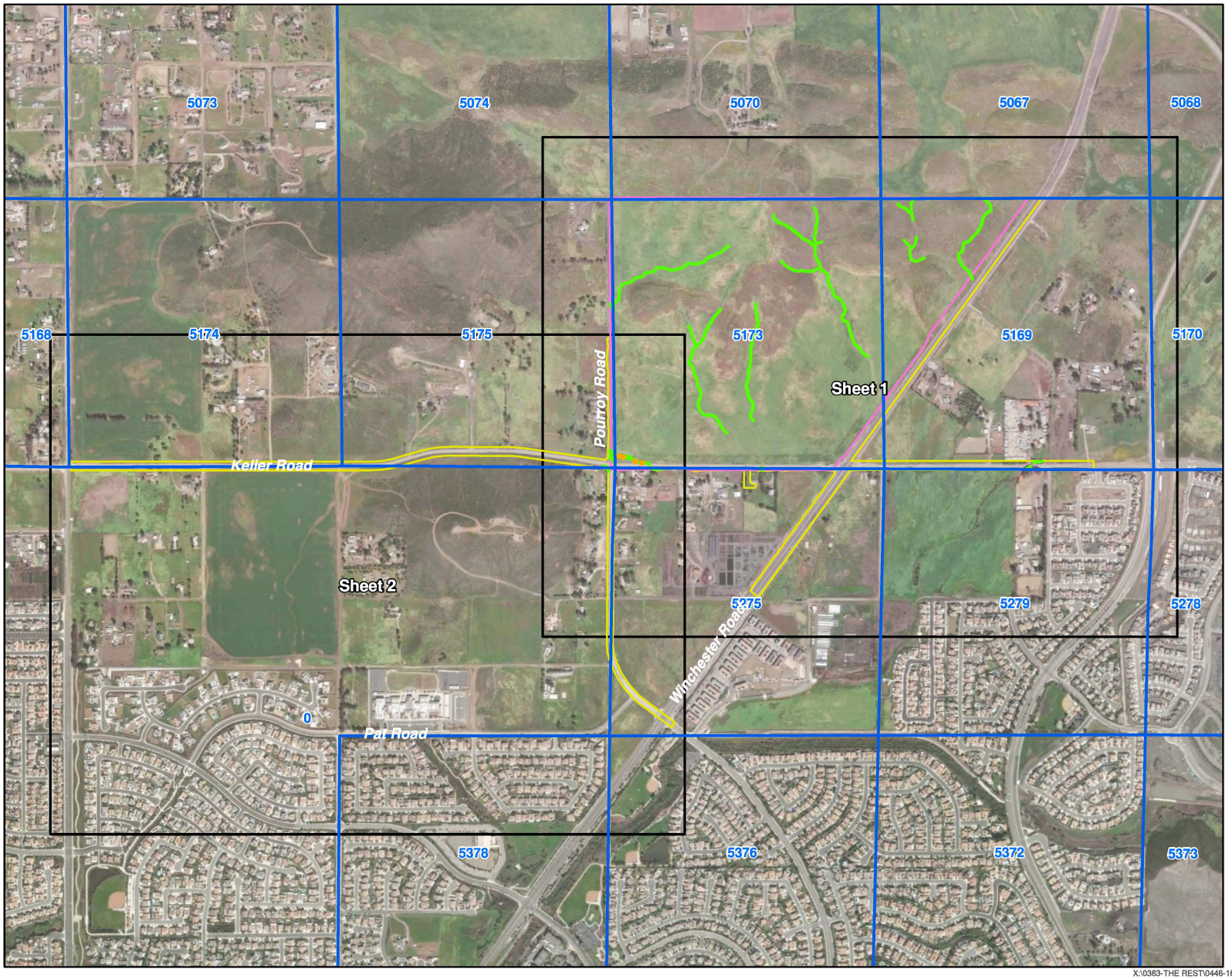
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_CDFW_Sheet2_REV1.mxd



Criteria Cells
Project - Onsite
Project - Offsite
MSHCP Riverine
MSHCP Riparian

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_MSHCPRipRiv_KEY_REV1.mxd



Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

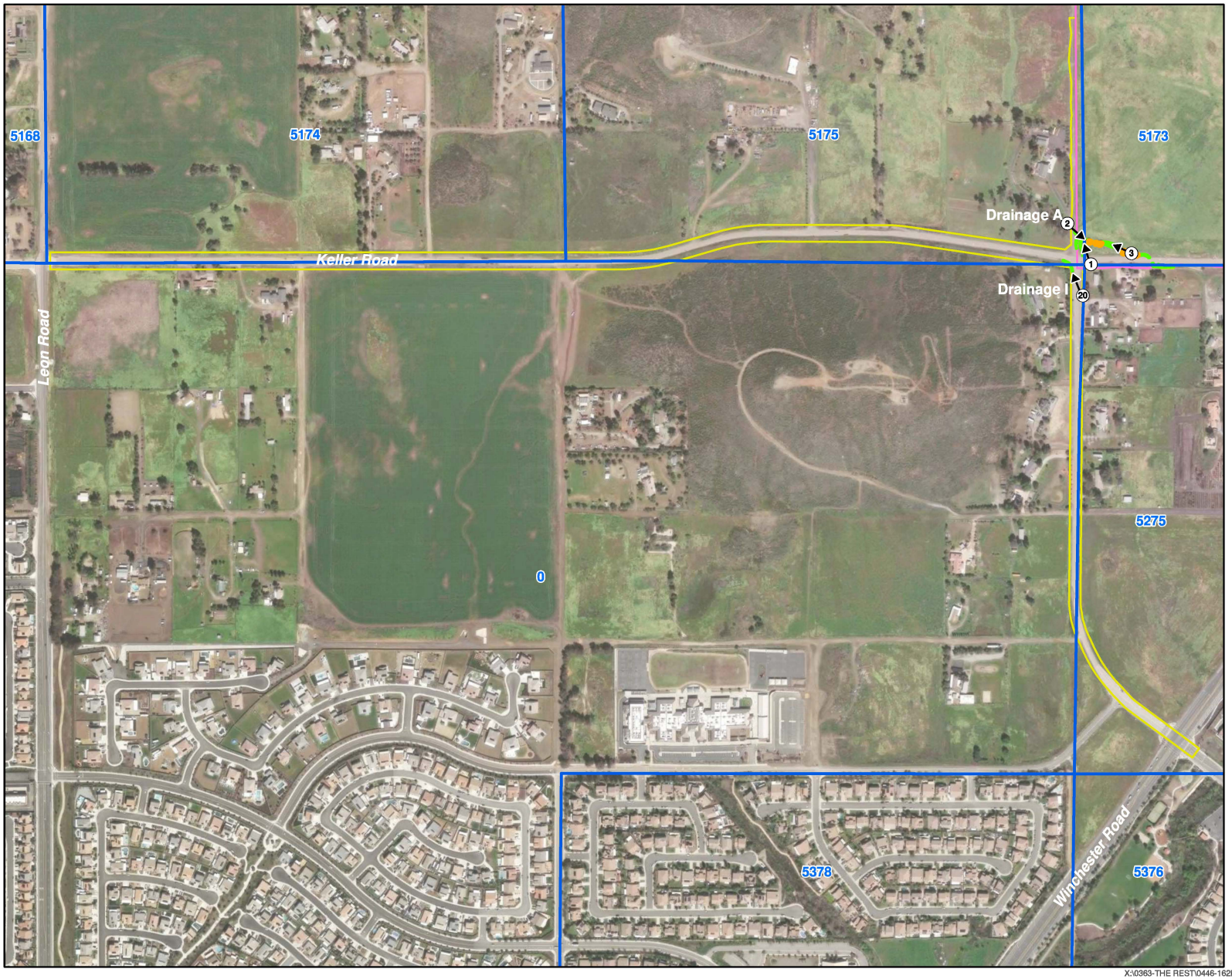
KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_MSHCPRipRiv_Sheet1_REV1.mxd



Project - Onsite
Project - Offsite
Criteria Cells
MSHCP Riverine
MSHCP Riparian
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

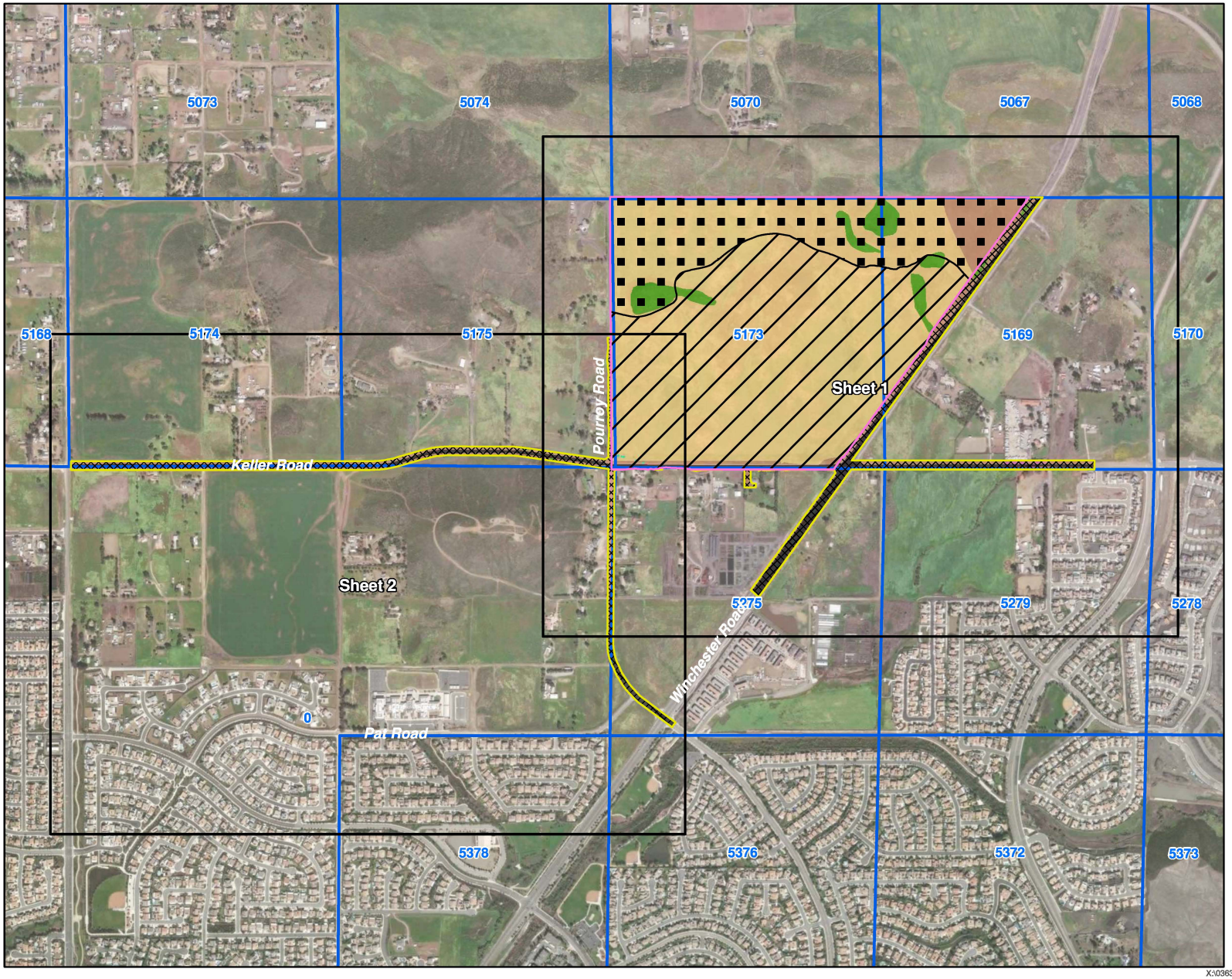
KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_MSHCPRipRiv_Sheet2_REV1.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- MSHCP Conservation
- Criteria Cells
- Agriculture
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Disturbed Mulefat Scrub
- Ornamental

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

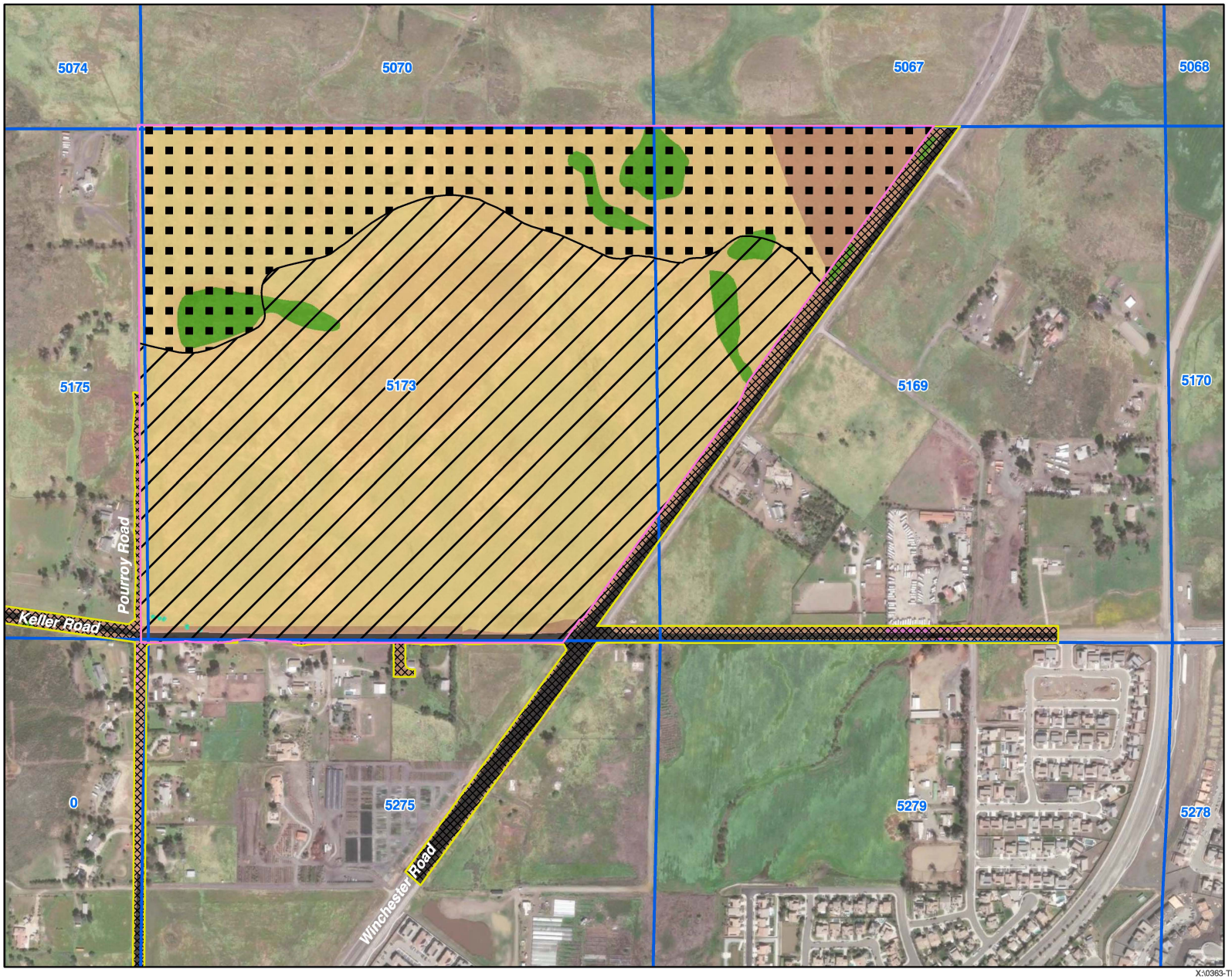
KELLER CROSSING PROJECT

Vegetation/Land Use Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 10 - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_VegImpacts_KEY.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- MSHCP Conservation
- Criteria Cells
- Agriculture
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Disturbed Mulefat Scrub
- Ornamental

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

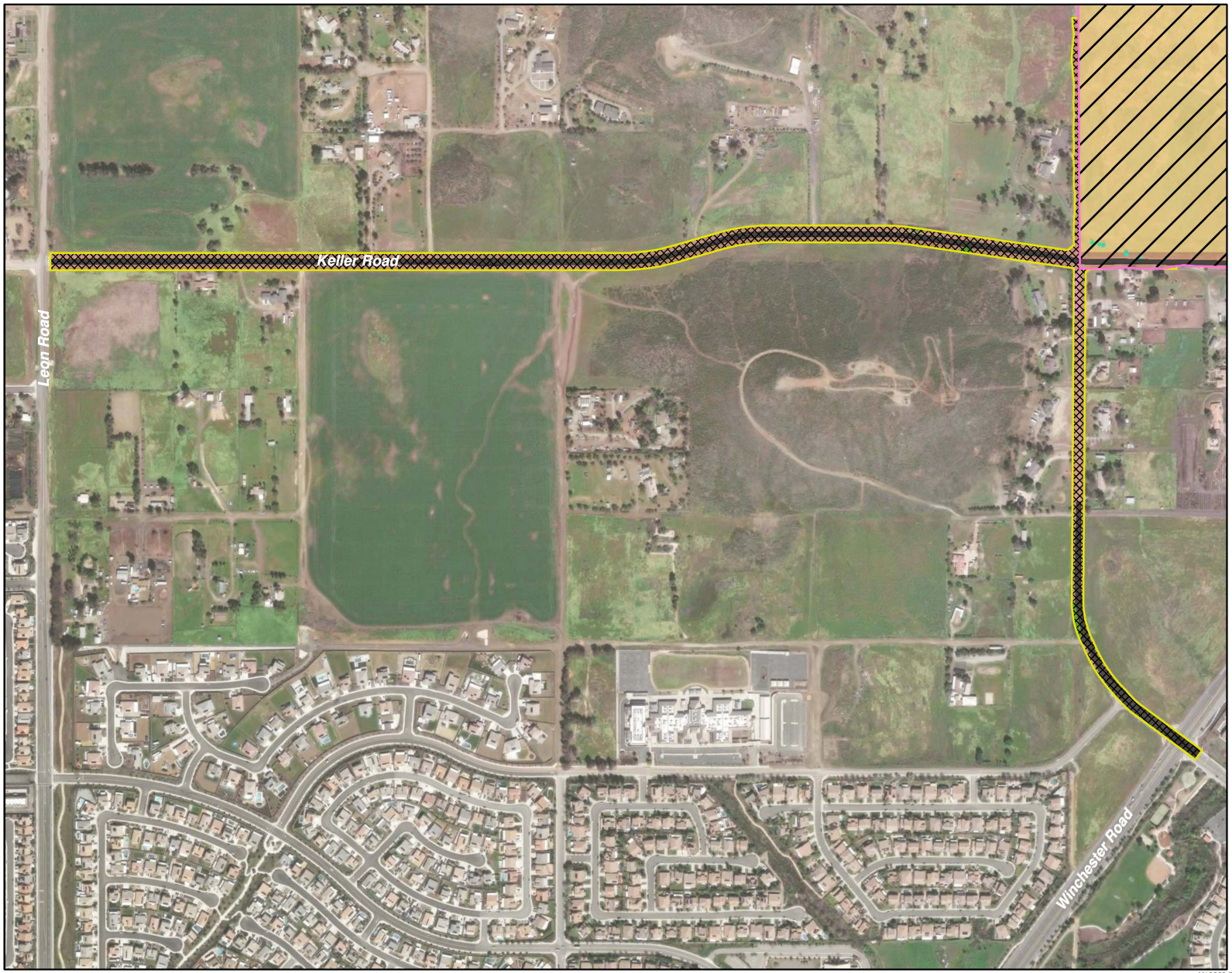
KELLER CROSSING PROJECT

Vegetation/Land Use Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 10 - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_VegImpacts_Sheet1.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- Criteria Cell
- Agriculture
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Disturbed Mulefat Scrub
- Ornamental

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

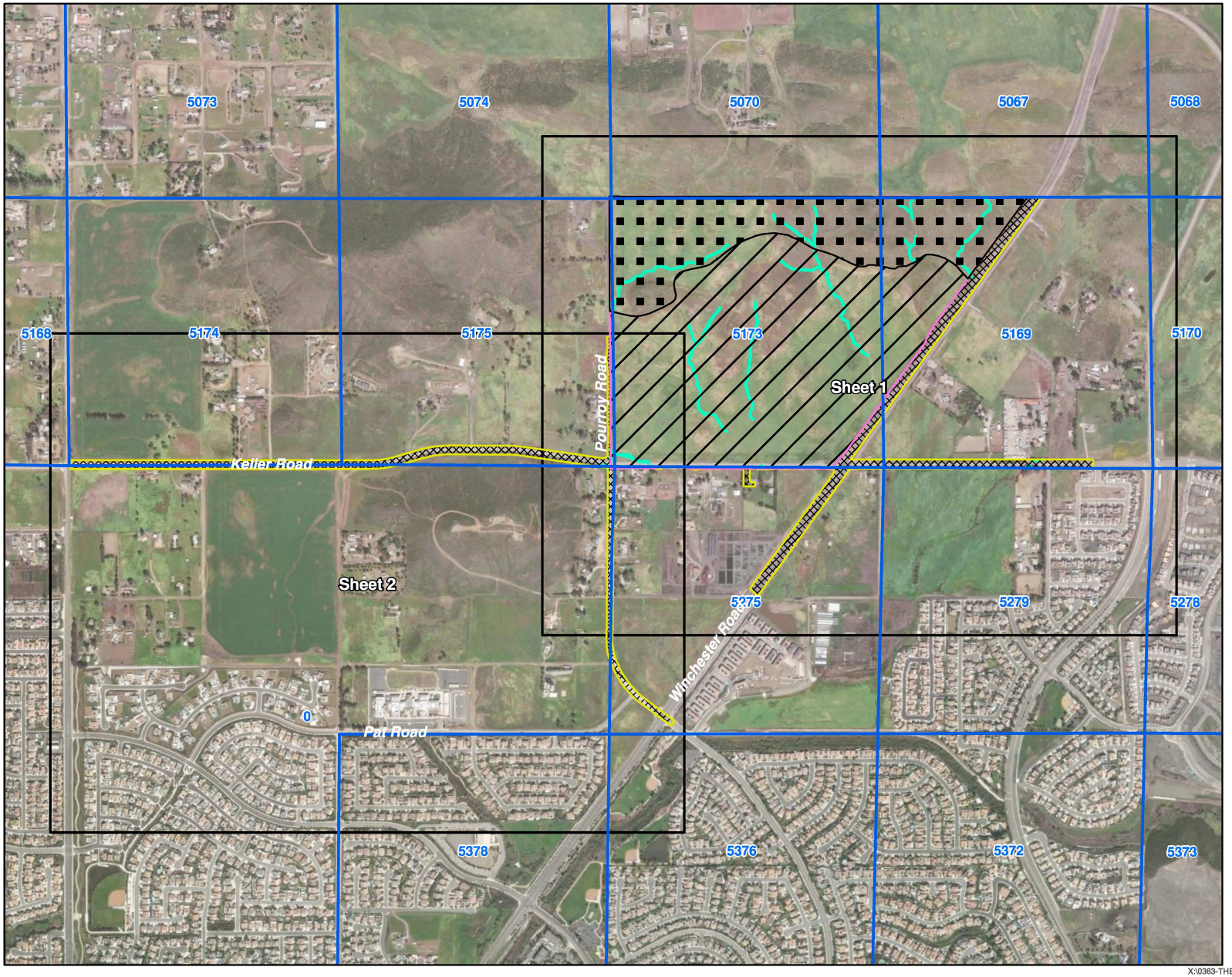
KELLER CROSSING PROJECT

Vegetation/Land Use Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 10 - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_VegImpacts_Sheet2.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- MSHCP Conservation
- Criteria Cells
- Non-Wetland Waters of the State

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

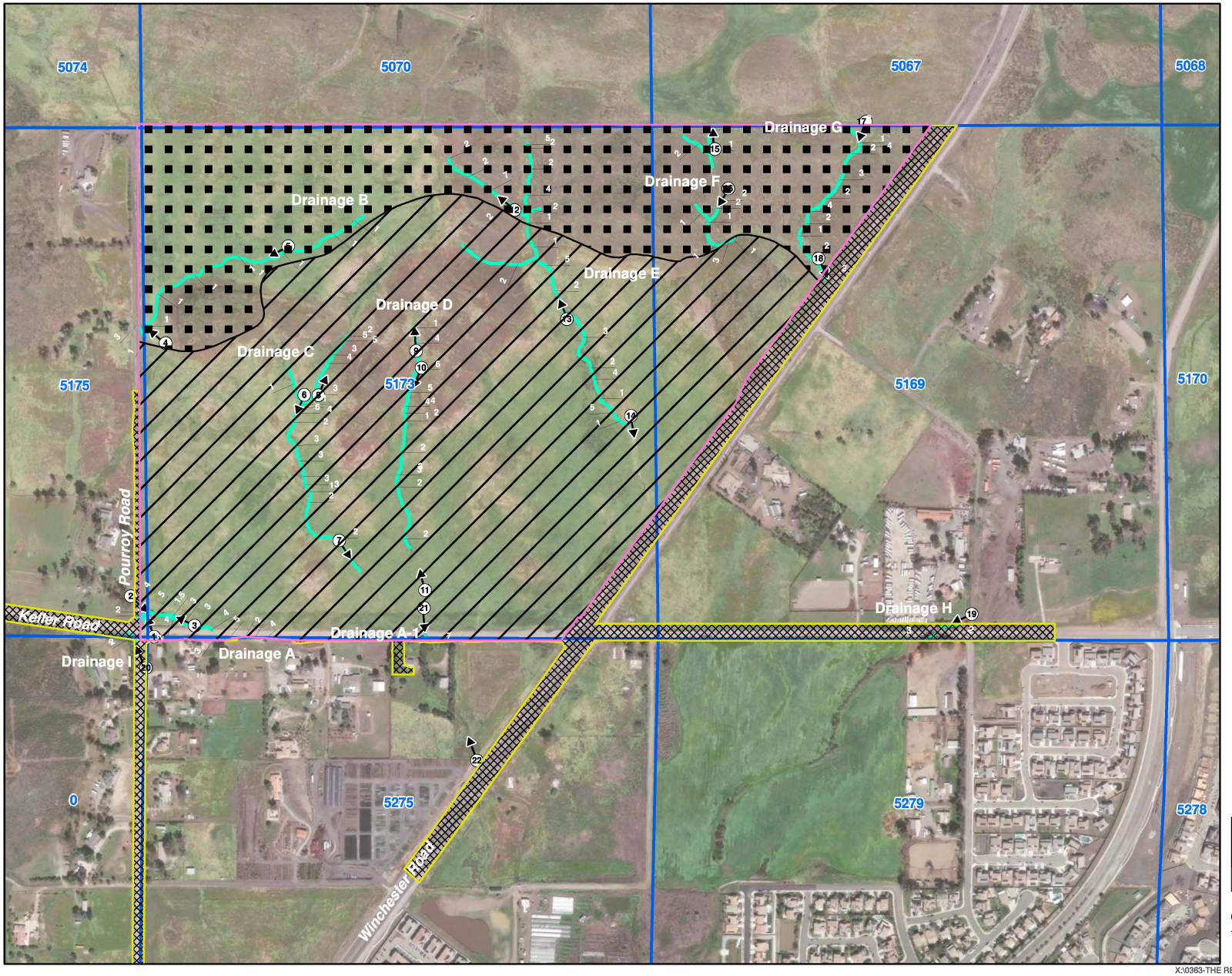
KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11A - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RWQCBImpacts_KEY.mxd



Project - Onsite
Project - Offsite
Project Footprint - Onsite
Project Footprint - Offsite
MSHCP Conservation
Criteria Cells
Non-Wetland Waters of the State
Width of Feature in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

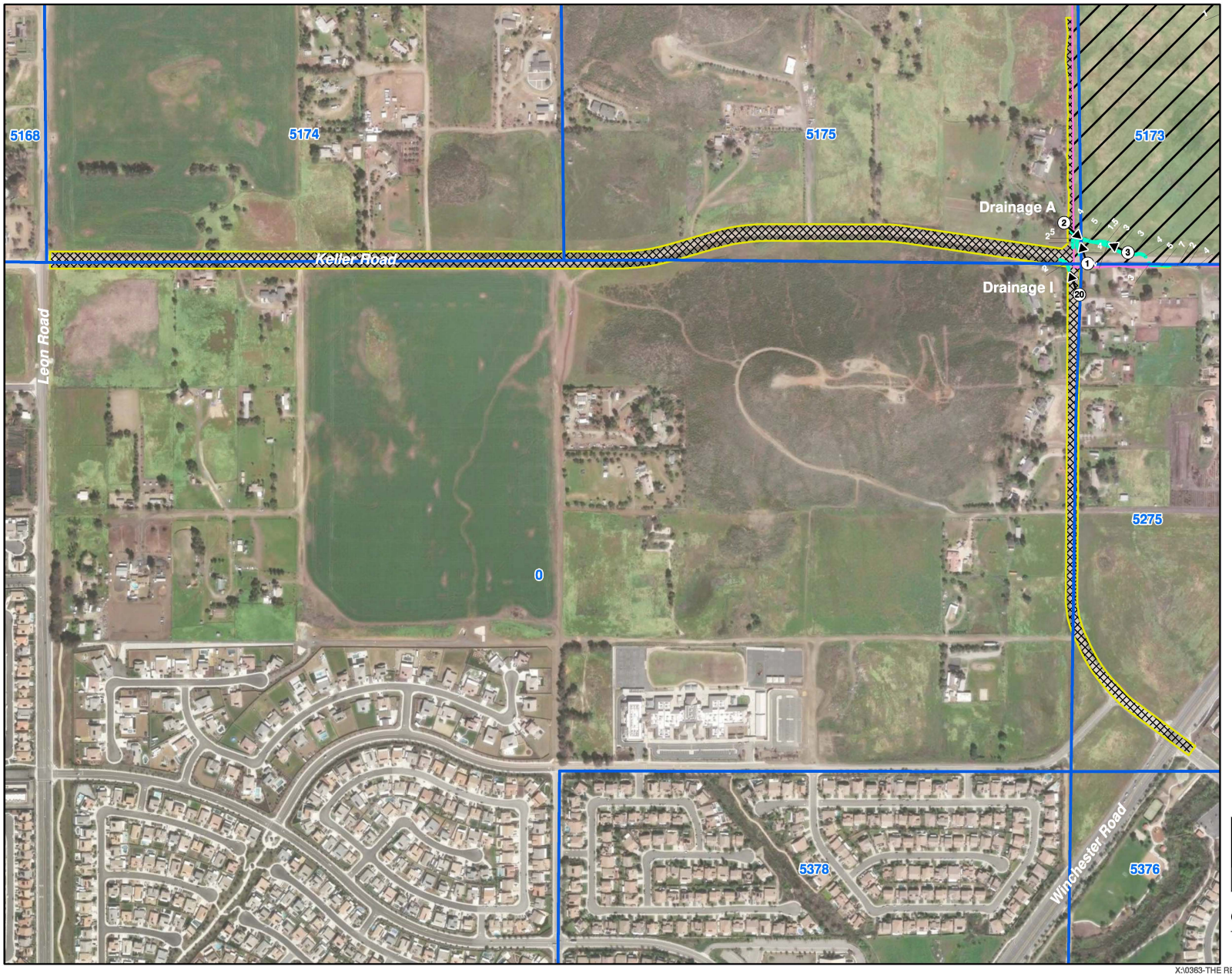
KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11A - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RWQCBImpacts_Sheet1.mxd



Project - Onsite
Project - Offsite
Project Footprint - Onsite
Project Footprint - Offsite
Criteria Cells
Non-Wetland Waters of the State
Width of Feature in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

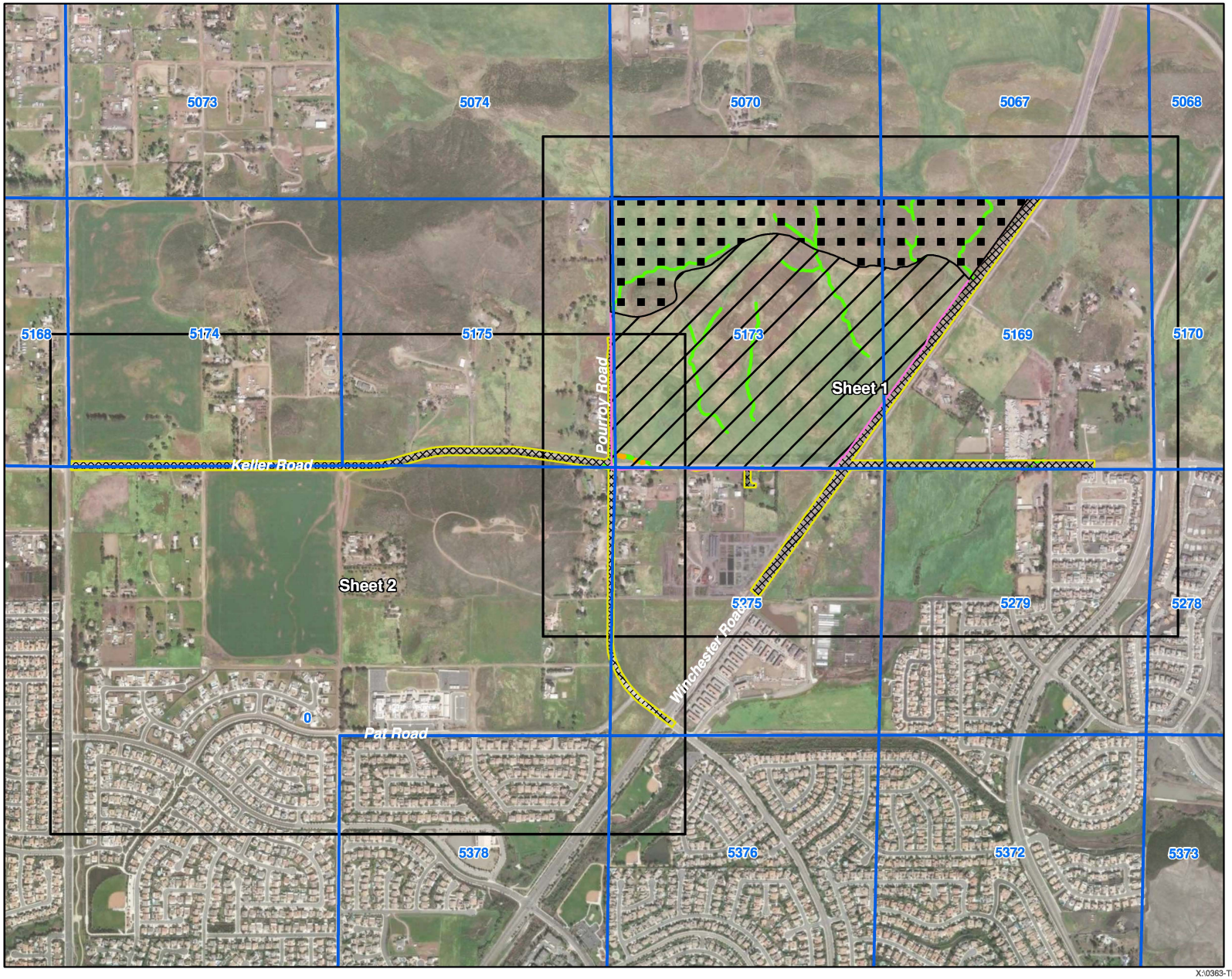
KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11A - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RWQCBImpacts_Sheet2.mxd



Project - Onsite
Project - Offsite
Project Footprint - Onsite
Project Footprint - Offsite
MSHCP Conservation
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

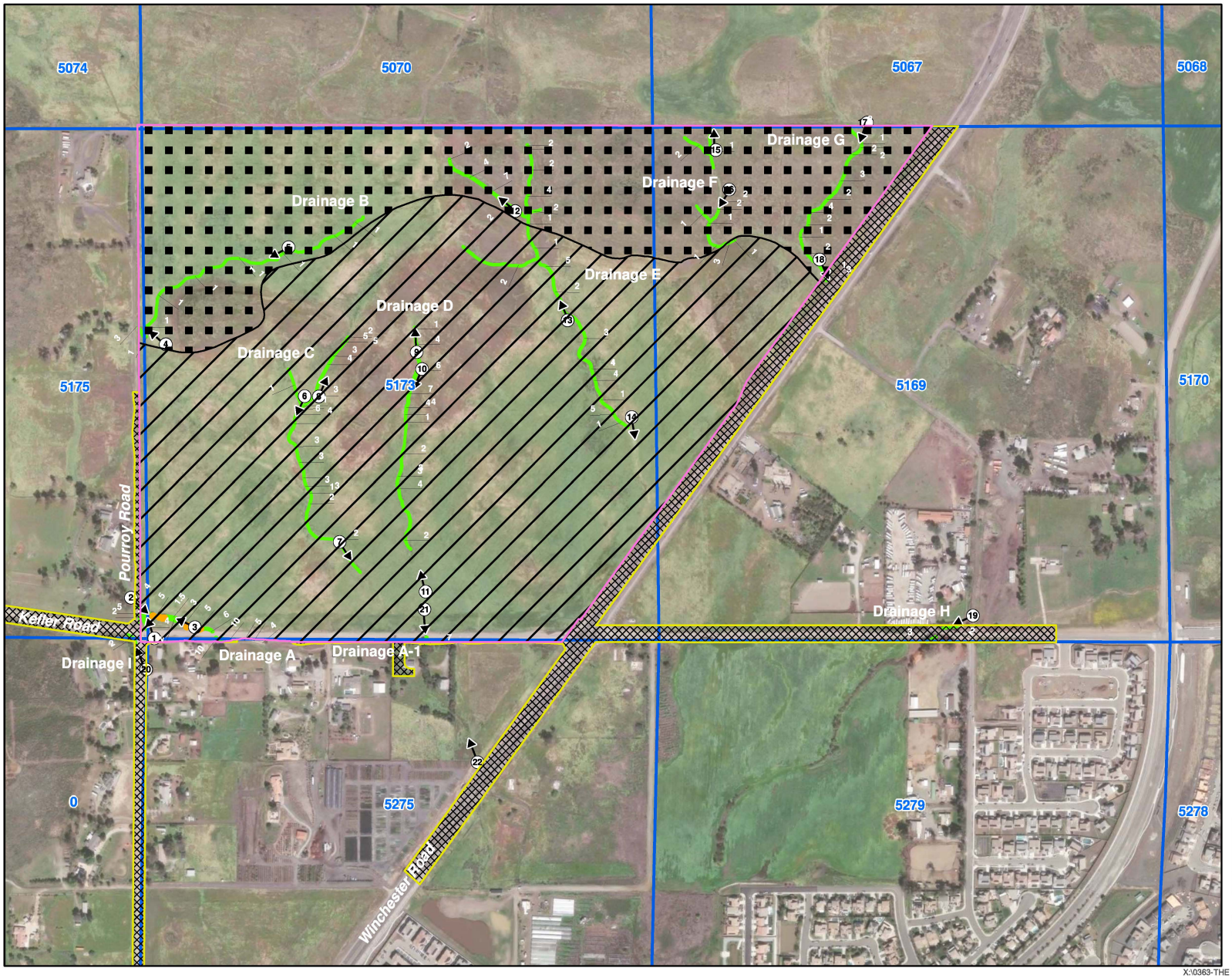
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11B - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_CDFWImpacts_KEY.mxd



Project - Onsite
Project - Offsite
Project Footprint - Onsite
Project Footprint - Offsite
MSHCP Conservation
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian
Width of Non-Riparian Stream in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

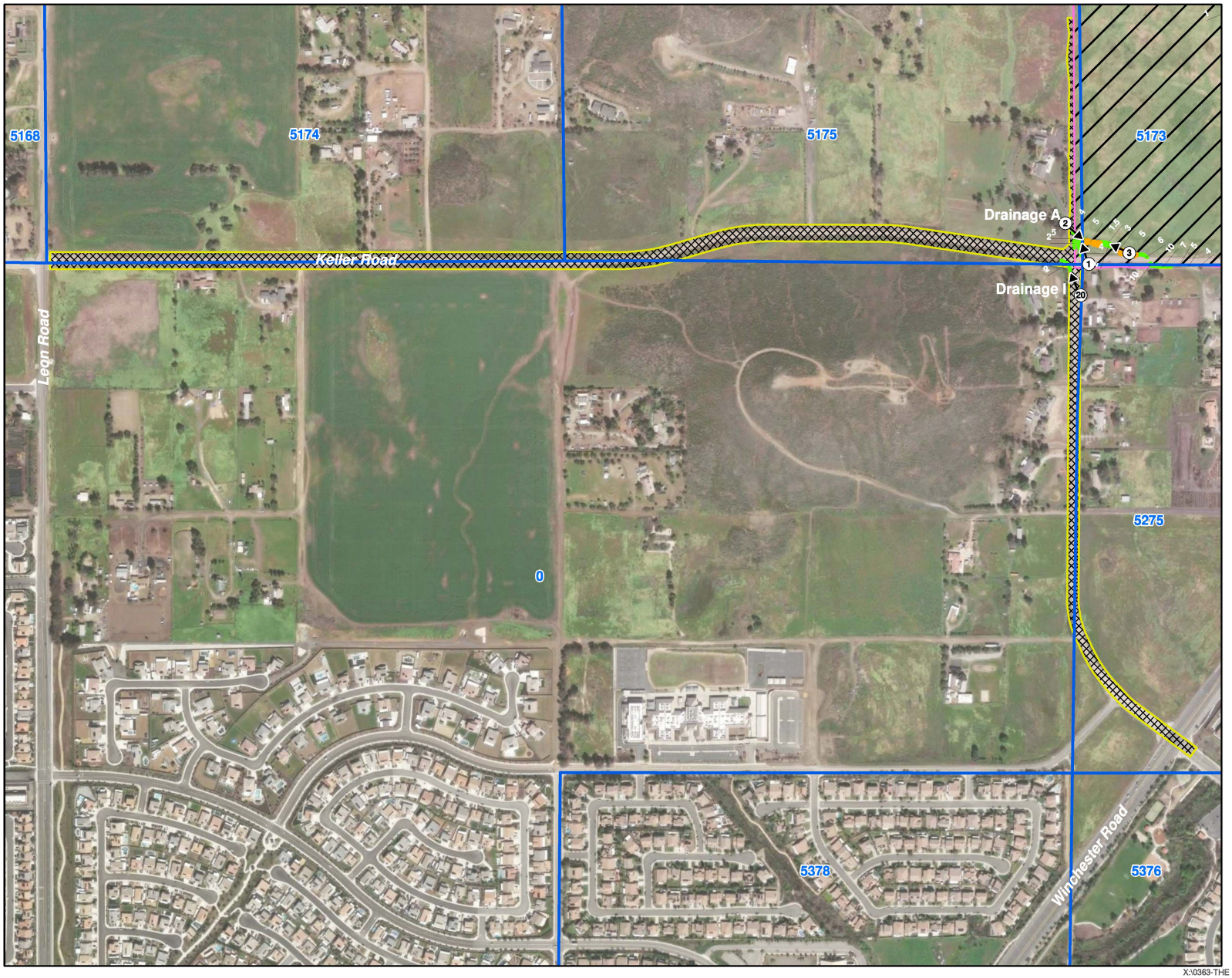
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11B - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_CDFWImpacts_Sheet1.mxd



Project - Onsite
Project - Offsite
Project Footprint - Onsite
Project Footprint - Offsite
Criteria Cells
CDFW Non-Riparian Stream
CDFW Riparian
Width of Non-Riparian Stream in Feet
Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

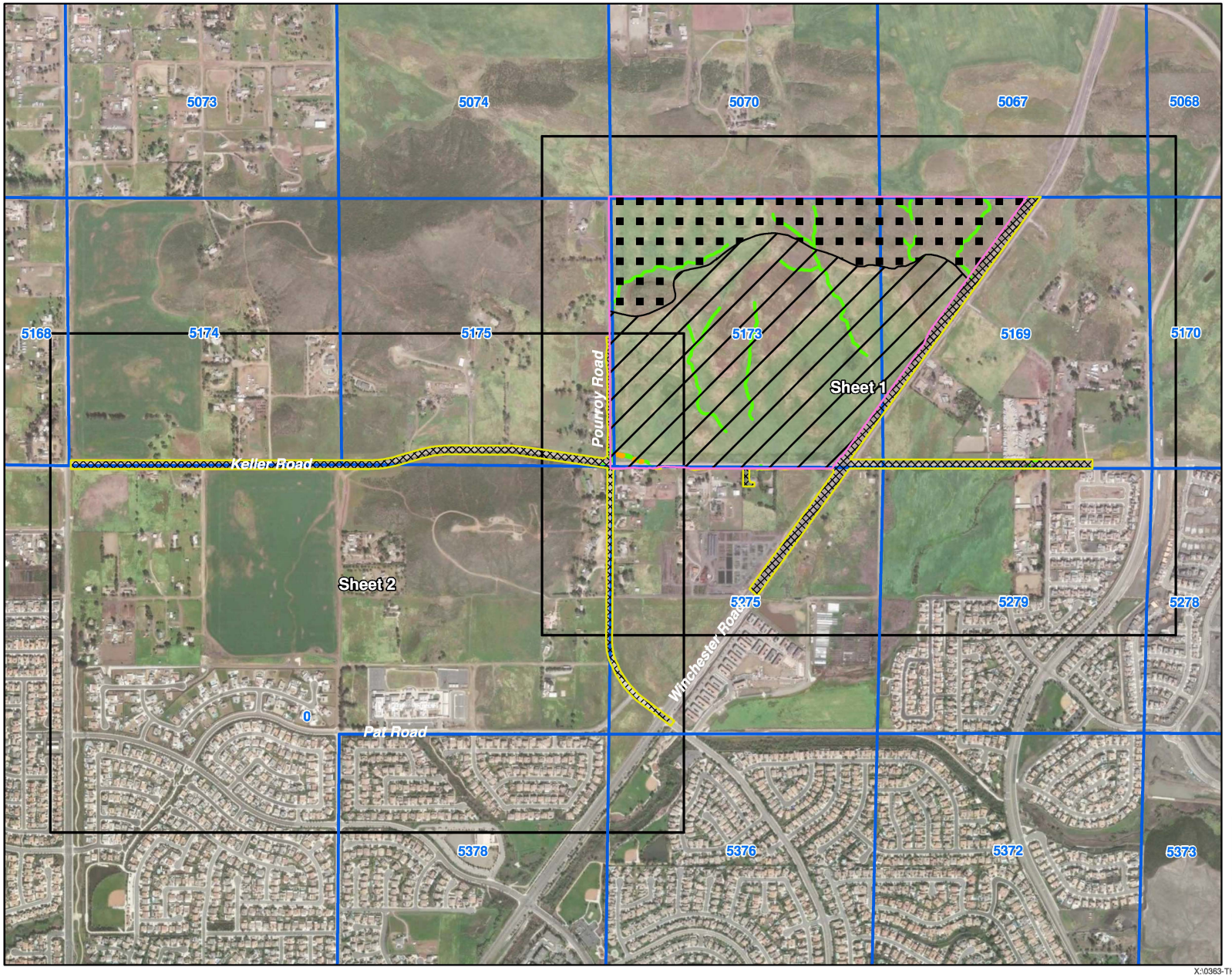
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11B - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_CDFWImpacts_Sheet2.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- MSHCP Conservation
- Criteria Cells
- MSHCP Riverine
- MSHCP Riparian

N

0 475 950 1,900
Feet

1 inch = 950 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

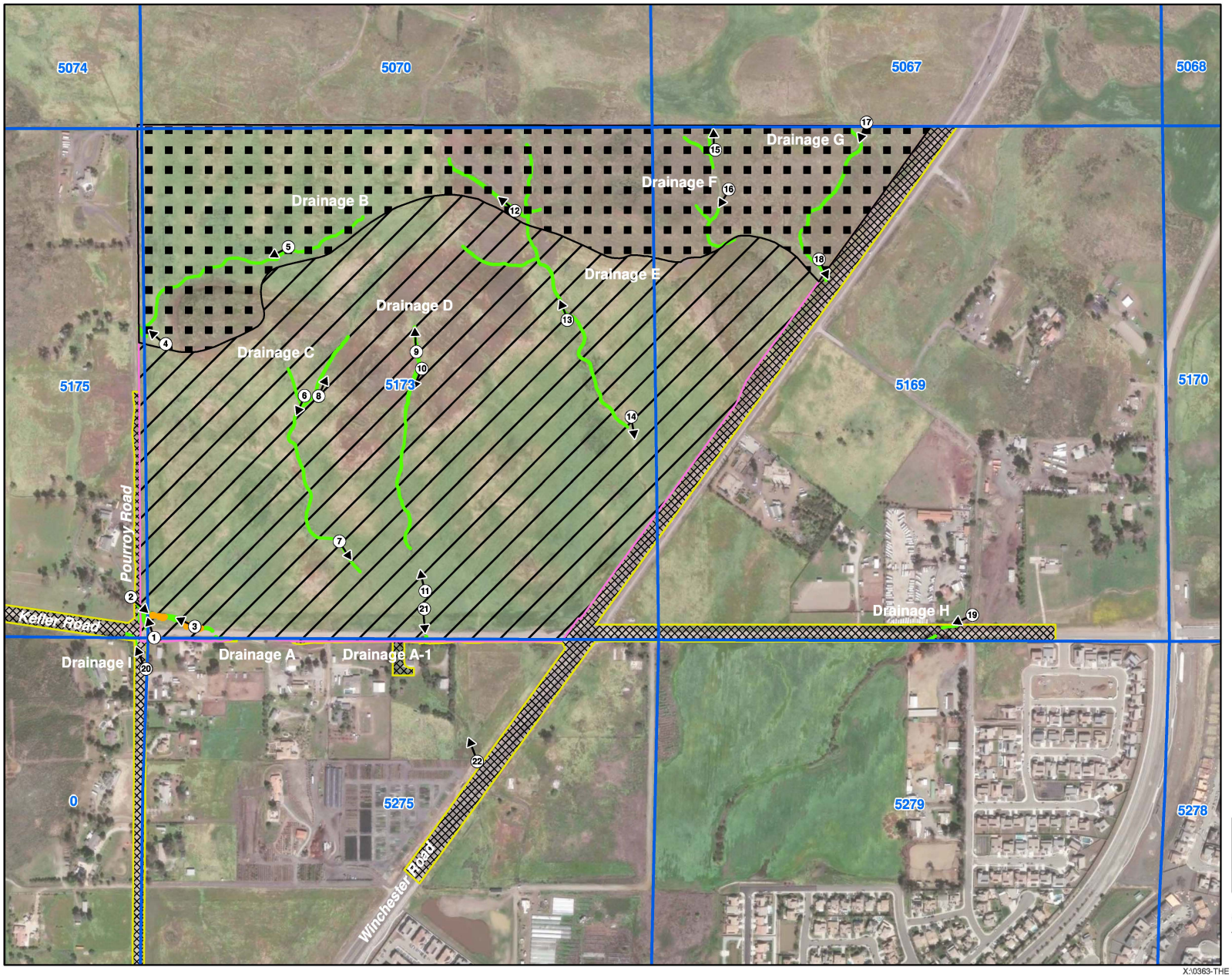
KELLER CROSSING PROJECT

MSHCP Riparian/Riverine/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11C - Key Map

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RipRivImpacts_KEY.mxd



Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

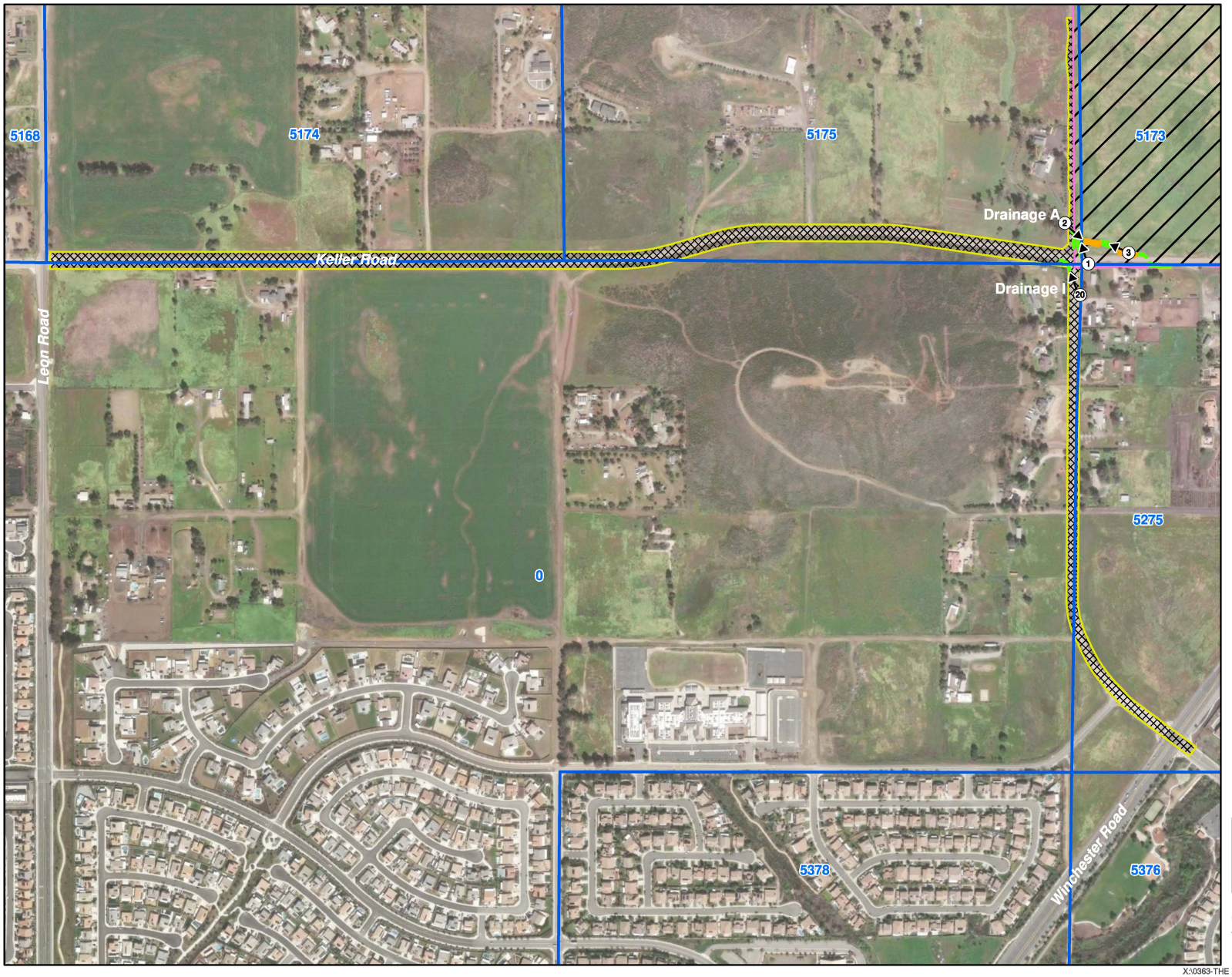
KELLER CROSSING PROJECT

MSHCP Riparian/Riverine/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11C - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RipRivImpacts_Sheet1.mxd



- Project - Onsite
- Project - Offsite
- Project Footprint - Onsite
- Project Footprint - Offsite
- Criteria Cells
- MSHCP Riverine
- MSHCP Riparian
- Photo Location

N

0 250 500 1,000
Feet

1 inch = 500 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: August 25, 2025

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 11C - Sheet 2

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Appendix A

Floral Compendium

Taxonomy sourced from The Jepson Manual (Baldwin et al. 2012) and Jepson eFlora (2023) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory, Online Edition v-9.5 (CNPS 2024). Common plant names are taken from Hickman (1993), Munz (1974), Roberts et al. (2004), and Roberts (2008).

* Non-native/Introduced species

SCIENTIFIC NAME	COMMON NAME	SPECIAL STATUS
GYMNOSPERMS		
Pinaceae – Pine Family		
**Pinus halapensis*	Aleppo pine	
MONOCOTS		
Agavaceae – Agave Family		
Hooveria parviflora	small-flowered soaproot	
Liliaceae – Lily Family		
Calochortus splendens	splendid mariposa lily	
Poaceae – Grass Family		
**Avena barbata*	slender wild oats	
**Avena fatua*	wild oats	
**Bromus madritensis ssp. rubens*	red brome	
**Bromus diandrus*	ripgut brome	
**Festuca myuros*	rattail fescue	
**Festuca perennis*	Italian rye grass	
**Hordeum murinum*	foxtail barley	
**Hordeum vulgare*	common barley	
**Poa annua*	annual blue grass	
**Schismus barbatus*	common Mediterranean grass	
Stipa pulchra	purple needle grass	
Themidaceae – Brodiaea Family		
Bloomeria crocea	common goldenstar	
Dichelostemma capitatum	blue dicks	

EUDICOTS		
Amaranthaceae -- Amaranth Family		
**Salsola tragus*	Russian thistle	
Apocynaceae – Dogbane Family		
Asclepias eriocarpa	woollypod milkweed	
Funastrum cynanchoides var. hartwegii	Hartweg's climbing milkweed	
**Nerium oleander*	oleander	
Asteraceae – Sunflower Family		
Artemisia californica	California sagebrush	
Baccharis salicifolia	mulefat	
**Centaurea melitensis*	tocalote	
Corethrogyne filaginifolia	California aster	
Deinandra paniculata	paniculate tarplant	CRPR 4.2
Encelia californica	California brittle bush	
Encelia farinosa	brittle bush	
Ericameria pinifolia	pinebush	
Erigeron canadensis	horseweed	
Helianthus annuus	common sunflower	
Lasthenia californica	California goldfields	
**Oncosiphon pilulifer*	stinknet	
Pseudognaphalium biolettii	two-color rabbit tobacco	
Pseudognaphalium californicum	California everlasting	
**Silybum marianum*	milk thistle	
Stebbinsoseris heterocarpa	grassland silverpuffs	
Uropappus lindleyi	Lindley's silverpuffs	
Boraginaceae – Borage Family		
Amsinckia intermedia	fiddlenecks	
Cryptantha intermedia	common cryptantha	
Pectocarya linearis	sagebrush combseed	
Brassicaceae – Mustard Family		
**Brassica nigra*	black mustard	
**Capsella bursa-pastoris*	shepherd's purse	
**Hirschfeldia incana*	summer mustard	
Lepidium nitidum	shining pepperweed	
Cactaceae – Cactus Family		
Cylindropuntia bernardina	cane cholla	
Opuntia littoralis	coast prickly pear	

Convolvulaceae – Morning-Glory Family		
Calystegia macrostegia	coast morning glory	
Euphorbiaceae – Spurge Family		
Croton setiger	doveweed	
Euphorbia albomarginata	rattlesnake sandmat	
Euphorbia polycarpa	smallseed sandmat	
Fabaceae – Legume Family		
Acmispon strigosus	strigose lotus	
Lupinus bicolor	miniature lupine	
Lupinus concinnus	bajada lupine	
Lupinus sparsiflorus	Coulter's lupine	
Lupinus succulentus	arroyo lupine	
**Parkinsonia aculeata*	Mexican palo verde	
Geraniaceae – Geranium Family		
**Erodium cicutarium*		
Lamiaceae – Mint Family		
Trichostema lanceolatum	vinegarweed	
Salvia columbariae	chia	
Malvaceaee – Mallow Family		
**Malva neglecta*	cheeseweed	
Myrtaceae -- Myrtle Family		
**Eucalyptus globulus*	blue gum	
Nyctaginaceae – Four O'clock Family		
Mirabilis laevis var. crassifolia	wishbone bush	
Plantaginaceae – Plantain Family		
Keckiella antirrhinoides	yellow bush penstemon	
Plantago erecta	dotseed plantain	
Polygonaceae – Buckwheat Family		
Chorizanthe fimbriata	fringed spineflower	
Eriogonum fasciculatum	California buckwheat	
Rhamnaceae -- Buckthorn Family		
Rhamnus crocea	spiny redberry	

Salicaceae – Willow Family		
Salix laevigata	red willow	
Saxifragaceae -- Saxifrage Family		
Jepsonia parryi	Parry's jepsonia	
Solanaceae – Nightshade Family		
Datura wrightii	sacred datura	

Special Status Designations

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

State
SE – State Endangered
ST – State Threatened
SR – State Rare

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)

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 (2022) for birds; Collins and Taggart (2009) and Crother (2017) for reptiles and amphibians; and Wilson and Reeder (2005) for mammals.

* Non-native/Introduced species

SCIENTIFIC NAME	COMMON NAME	SPECIAL STATUS
INVERTEBRATES		
Arachnida, Order Araneae – Crab Spiders		
Sparassidae sp.	huntsman spider	
Insecta, Order Coleoptera – Beetles		
Eleodes acuticauda	head-standing darkling beetle	
Insecta, Order Dermaptera -- Earwigs		
Forficulidae sp.	earwig	
Insecta, Order Diptera – Flies		
Tipulidae sp.	cranefly	
Insecta, Order Hymenoptera – Ants, Bees, and Wasps		
**Apis mellifera*	European honey bee	
Bombus californicus	California bumble bee	
Bombus vosnesenskii	yellow-faced bumble bee	
Pepsini sp.	tarantula hawk	
Insecta, Order Lepidoptera – Butterflies and Moths		
Icaricia acmon	Acmon blue	
**Pieris rapae*	cabbage white	
Insecta, Order Orthoptera – True Crickets		
**Gryllodes sigillatus*	tropical house cricket	
REPTILES		
Colubridae – Colubrid Snakes		
Pituophis catenifer	gopher snake	

Phrynosomatidae – Phrynosomatid Lizards		
Uta stansburiana	side-blotched lizard	
Viperidae – Venomous Snakes		
Crotalus helleri	southern pacific rattlesnake	
BIRDS		
Accipitridae – Hawks, Eagles, Kites		
Astur cooperii	Cooper's hawk	
Buteo jamaicensis	red-tailed hawk	
Circus hudsonius	northern harrier	SSC
Aegithalidae – Bushtits		
Psaltriparus minimus	bushtit	
Alaudidae – Larks		
Eremophila alpestris actia	California horned lark	
Anatidae – Swans, Geese, Ducks		
Branta canadensis	Canada goose	
Ardeidae – Herons and Bitterns		
Ardea alba	great egret	
Cathartidae – American Vultures		
Cathartes aura	turkey vulture	
Charadriidae – Plovers and Relatives		
Charadrius vociferus	killdeer	
Columbidae – Pigeons, Doves		
**Columba livia*	rock pigeon	
**Streptopelia decaocto*	Eurasian collared-dove	
Zenaida macroura	mourning dove	
Corvidae – Crows, Jays		
Aphelocoma californica	California scrub jay	
Corvus brachyrhynchos	American crow	
Corvus corax	common raven	
Cuculidae – Anis, Cuckoos, Roadrunners		
Geococcyx californianus	greater roadrunner	

Emberizidae – Old World Buntings		
Melospiza melodia	song sparrow	
Passerculus sandwichensis	savannah sparrow	
Zonotrichia leucophrys	white-crowned sparrow	
Falconidae – Falcons		
Falco sparverius	American kestrel	
Fringillidae – Finches		
Carpodacus mexicanus	house finch	
Carduelis psaltria	lesser goldfinch	
Hirundinidae – Swallows, Martins		
Hirundo rustica	barn swallow	
Petrochelidon pyrrhonota	cliff swallow	
Stelgidopteryx serripennis	northern rough-winged swallow	
Tachycineta bicolor	tree swallow	
Icteridae – Blackbirds		
Agelaius phoeniceus	red-winged blackbir	
Icterus cucullatus	hooded oriole	
Sturnella neglecta	western meadowlark	
Mimidae – Mockingbirds, Thrashers		
Mimus polyglottos	northern mockingbird	
Odontophoridae – New World Quail		
Callipepla californica	California quail	
Parulidae – Wood Warblers		
Geothlypis trichas	common yellowthroat	
Passerellidae – New World Sparrows		
Aimophila ruficeps	rufous-crowned sparrow	
Melozone crissalis	California towhee	
Pipilo maculatus	spotted towhee	
Pooecetes gramineus	vesper sparrow	
Passeridae – Old World Sparrows		
Passer domesticus	house sparrow	
Strigidae – Typical Owls		
Tyto alba	barn owl	

Sturnidae – Starlings and Mynahs		
**Sturnus vulgaris*	European starling	
Trochilidae – Hummingbirds		
Calypte anna	Anna's hummingbird	
Troglodytidae –Wrens		
Thryomanes bewickii	Bewick's wren	
Troglodytes aedon	house wren	
Turdidae – Thrushes		
Sialia mexicana	western bluebird	
Tyrannidae – Tyrant Flycatchers		
Sayornis nigricans	black phoebe	
Sayornis saya	Say's phoebe	
Tyrannus verticalis	western kingbird	
Tyrranis vociferans	Casin's kingbird	
MAMMALS		
Canidae – Dogs, Wolves, and Foxes		
**Canis familiaris*	domestic dog	
Canis latrans	coyote	
Felidae – Cats		
Felis catus	domestic cat	
Geomyidae – Pocket Gophers		
Thomomys bottae	Botta's pocket gopher	
Leporidae – Rabbits and Hares		
Sylvilagus audubonii	desert (Audubon's) cottontail	
Mustelidae – Weasels and Allies		
Taxidea taxus	American badger	SSC
Sciuridae – Squirrels, Chipmunks, Marmots		
Otospermophilus beecheyi	California ground squirrel	

Special Status Designations

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPE – Federally Proposed Endangered	SCE – State Candidate Endangered
FPT – Federally Proposed Threatened	FP – California Fully Protected Species
FC – Federal Candidate	SSC – Species of Special Concern

APPENDIX C – JPR 09-12-14-01 AMENDED FINDINGS

RCA Joint Project Review (JPR)

JPR #: 09-12-14-01
Date: Amended 07/12/24 ~~1-25-10~~

Project Information

Permittee:	**County of Riverside**
Case Information:	**HANS 1995/TTM38163**
Site Acreage:	**~~195.13 acres~~ 227.9 acres[1] (134.5-acre on-site permanent and 32.0-acre off-site permanent, and 61.4-acre proposed for conservation); of which 223.0 acres (134.5-acre on-site permanent, 27.1-acre off-site permanent, and 61.4-acre proposed for conservation) are located within the Criteria Area[2]**
Portion of Site Proposed for MSHCP Conservation Area[3]:	**~~61.1 acres~~ 61.4 acres**

Criteria Consistency Review

Consistency Conclusion: The project is consistent with both the Criteria and other Plan requirements. These amended Findings evaluate the change between the 2009 proposed project and the current project ("amended project"). The amended project is found consistent with Plan Requirements with implementation of the measures presented in these Findings (including any within the project information provided to Regional Conservation Authority by the Permittee for this JPR). Changes to the original JPR that no longer apply, are shown in ~~strike through text~~, with these changes as well as added portions shown in red text.

Data:

Applicable Core/Linkage: Proposed Constrained Linkage 17; Proposed Constrained Linkage 18
Area Plan: Southwest

APN[1]	Sub-Unit	Cell Group	Cell
472-090-001*	SU 5 – French Valley/Lower Sedco Hills	Independent	5067
472-090-016*		U	5070
472-090-017*			5074
472-090-018*	SU 4 – Cactus Valley/SWRC-MSR/Johnson Ranch		5169
472-090-019*			5173
472-090-020*			5174
472-090-021*			5175
472-090-024*			5275
472-090-025*			

1 Note that acreages in these Findings and the JPR supporting documentation 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 All proposed MSHCP Conservation lands will be donated to the RCA and placed into conservation as defined as Additional Reserve Lands (ARL) prior to any project ground disturbance.

472-090-026*			5279
472-090-027*			
472-110-001			
472-110-002			
472-110-003			
472-110-004			
~~472-110-005**~~			
~~472-110-006**~~			
472-110-007			
472-110-008			
472-110-009			
~~472-110-010**~~			
472-110-024*			
472-110-025*			
472-110-029*			
472-110-031*			
472-110-032			
472-110-033			
472-110-034			
472-110-042*			
472-110-043*			
472-232-003*			
472-320-001*			
472-320-002*			
472-320-003*			
472-320-004*			
472-320-013*			
472-320-015*			
472-320-024*			
472-320-025*			
472-320-026*			
472-320-027*			
472-320-033*			
472-320-035*			
476-010-001*			
476-010-002*			
476-010-003*			
476-010-004*			
476-010-005*			
476-010-006*			
476-010-009*			
476-010-011*			
476-010-012*			
476-010-027*			
476-010-028*			
476-010-029*			

476-010-052* 476-010-056* 476-010-060* 476-010-079* 476-010-080* 476-010-081* 476-010-082* 476-010-083* Right-of-way			

[1] Underlined APNs are parcels listed in the amended JPR supporting documentation that touch the JPR boundary as a result of minor parcel shifting picked up by GIS.
* Denotes APNs that are partially impacted. The County will require any future proposed development in these APNs to demonstrate MSHCP consistency and be processed through a separate joint project review.
** Denotes old APN; APNs are now APN 472-110-032, -033, and -034, respectively.

***Criteria* Comments:**

a. **Reserve Assembly Summary**. As stated in Section 3.2.3 of the MSHCP, "Proposed Constrained Linkage 17 (Paloma Valley) is located in the south-central region of the Plan Area. Proposed Extension of Existing Core 7 (Lake Skinner/Diamond Valley Lake Extension) is located to the east of this Linkage. The Linkage provides Habitat for species and also provides for movement of species. Although this Linkage is constrained by existing urban Development and agricultural use along much of its length, planned land uses surrounding the Constrained Linkage are nearly entirely rural. In addition, the Constrained Linkage has a comparatively low Permiter to Area Ratio ratio. Thus, Edge Effects on this Constrained Linkage may be substantially lower than for other Constrained Linkages. Nonetheless, treatment and management of edge conditions along this Linkage will be necessary to ensure that it provides Habitat and movement functions for species using the Linkage, since several major Covered Activities are proposed for extension or widening within or adjacent to the Linkage. 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]. An adequate wildlife underpass or overpass may need to be implemented to ensure movement of species in this area and to reduce the chance of mortality from vehicle collision."

As stated in Section 3.2.3 of the MSHCP, "Proposed Constrained Linkage 18 consists of an unnamed drainage located in the south-central region of the Plan Area. This Constrained Linkage connects Proposed Core 2 (Antelope Valley) to the west with Proposed Extension of Existing Core 7 (Lake Skinner/Diamond Valley Lake Extension). Existing agricultural use constrains the Linkage, and planned land uses surrounding the Linkage are limited nearly entirely to community Development. The Linkage also has a relatively high proportion of land affected by edge (approximately 250 acres of the total 310 acres) and will also be subject to Edge Effects also due to the widening or extension of several facilities including Washington Street, Briggs Road, and SR-79. Despite these issues, the Linkage nonetheless provides Live-In and movement Habitat for species. 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]. This Linkage likely provides for movement of common mammals such as bobcat. An adequate wildlife underpass or overpass may need to be implemented to ensure movement of species in this area and to reduce the chance of mortality from vehicle collision."

Cell Group U

~~Approximately 1 acres~~ A portion of the site is located in Cell Group U (four Cells), specifically in Cells 5067, 5070, and 5074. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland, and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell 5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell 5169 and 5175 both to the south, to chaparral habitat and agricultural land proposed for conservation in Cell 5173 also to the south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65% to 75% of the Cell Group, focusing in the eastern portion of the Cell Group."

The project associated with this amended JPR does not propose any development impacts within Cell Group U. The project only proposes conservation (1.1 acres) within this Cell Group. Therefore, development of the project would not further impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5169

~~Approximately 36 acres of the 195-acre site~~ A portion of the site is located in Cell 5169. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland, chaparral, and coastal sage scrub habitat. Areas conserved within this Cell will be connected to chaparral habitat and agricultural land proposed for conservation in Cell 5173 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to grassland and coastal sage scrub habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell will range from 25% to 35% of the Cell, focusing in the northern portion of the Cell."

Cell 5169 totals approximately 163.7 acres. Using the mid-range (30%), approximately 49.1 acres are described for conservation within this Cell. To date, approximately 77.6 acres have been developed or are approved for development in this Cell, which includes 15.1 acres of the project site and 19.2 acres of covered road acreage. In addition, there are 34.8 acres of undeveloped lands (including 0.2-acre avoidance area associated with JPR 23-02-09-01) that would not functionally contribute to Proposed Constrained Linkage 17. There are 22.5 acres within the Cell that are proposed for conservation; specifically, 3.7 acres associated

with JPR 04-11-16-01 and 18.8 acres associated with this amended JPR. There are approximately 28.9 undeveloped acres available within the northern portion of the Cell, located within areas described for conservation or that would functionally contribute to Proposed Constrained Linkage 17. In summary, with 22.5 acres proposed for conservation and 28.9 undeveloped acres potentially available for conservation that could functionally contribute to Proposed Constrained Linkage 17 (summing to 51.4 acres), Cell 5169 could achieve the mid-range goal of 49.1 acres of conservation with development of the project site considered. Therefore, development of the project site would not impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5173

~~Approximately 156.38 acres of the approximately 195-acre site~~ The majority of the site is located within Cell 5173. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell 5175 to the west, to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group U to the north, and to chaparral habitat proposed for conservation in Cell 5169 to the east. Conservation within this Cell will range from 20% to 30% of the Cell, focusing in the northern portion of the Cell."

Cell 5173 totals approximately 162.8 acres. Using the mid-range (25%), approximately 40.7 acres are described for conservation within this Cell. To date, approximately 120.7 acres have been developed or are approved for development in this Cell, which includes 113.3 acres of the project site and 7.5 acres of covered road acreage. In addition, there are 0.7 acres of undeveloped lands that would not functionally contribute to Proposed Constrained Linkage 17. There are 41.3 acres within the Cell that are proposed for conservation, all associated with this amended JPR. In summary, with 41.3 acres proposed for conservation, Cell 5173 could achieve the mid-range goal of 40.7 acres of conservation with development of the project site considered. Therefore, development of the project site would not impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5175

~~Approximately 1 acre~~ A portion of the site is located in Cell 5175. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland and chaparral habitat. Areas conserved within this Cell will be connected to chaparral habitat proposed for conservation in Cell 5174 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to agricultural land proposed for conservation in Cell 5173 to the east. Conservation within this Cell will range from 35% to 45% of the Cell, focusing in the northern portion of the Cell."

Cell 5175 totals approximately 163.6 acres. Using the mid-range (40%), approximately 65.4 acres are described for conservation within this Cell. To date, approximately 83.7 acres have been developed or are approved for development in this Cell, which includes 6.9 acres of the project site and 2.2 acres of covered road acreage. In addition, there are 7.9 acres of undeveloped lands that would not functionally contribute to Proposed Constrained Linkage 17. There are 61.8 acres within the Cell that are proposed for conservation, of which, 0.6 acre is associated with this amended JPR. There are approximately 10.2 undeveloped acres available within the northern portion of the Cell, located within areas described for conservation or that would functionally contribute to Proposed Constrained Linkage 17. In summary, with 61.8 acres proposed for conservation and 10.2 acres of undeveloped land potentially available for conservation (summing to 72.0 acres), Cell 5175 could achieve the mid-range goal of 65.4 acres of conservation with development of the project site considered. Therefore, development of the project site would not impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5275

A portion of the site is located in Cell 5275. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 18. Conservation within this Cell will focus on riparian scrub, woodland and forest habitat and adjacent agricultural land. Areas conserved within this Cell will be connected to riparian scrub, woodland and forest habitat and agricultural land proposed for conservation in Cell #5376 to the south and to agricultural land proposed for conservation in Cell #5279 to the east. Conservation within this Cell will range from 10%-20% of the Cell focusing in the southern portion of the Cell."

Cell 5275 totals approximately 161.7 acres. Using the low range (10%), approximately 16.2 acres are described for conservation within this Cell. To date, approximately 118.3 acres have been developed or are approved for development in this Cell, which includes 6.7 acres of the project site and 11.4 acres of covered road acreage. In addition, there are 30.2 acres of undeveloped lands that would not functionally contribute to Proposed Constrained Linkage 18. There are 13.1 acres within the Cell that are proposed for conservation, all of which is associated with JPR 05-03-29-03. In summary, with 13.1 acres proposed for conservation, Cell 5275 cannot meet its low-range goal of 16.2 acres of conservation. However, portions of the project within this Cell include road improvements to a covered road (Winchester Road). Covered roads are exempt from reserve assembly requirements because their impacts have been considered in MSHCP preparation. Furthermore, the remaining portions of the project within this Cell includes associated off-site utilities within Pourroy Road and south of Keller Road, all of which are located in areas not described for conservation and would not functionally contribute to Proposed Constrained Linkage 17. Therefore, development of the project site would not further impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5174

A portion of the site is located in Cell 5174. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to chaparral and grassland habitat proposed for conservation in Cell Group U to the north, to chaparral habitat proposed for conservation in Cell #5175 to the east and to grassland and adjacent habitat proposed for conservation in Cell Group B in the Sun City/Menifee Area Plan to the west. Conservation within this Cell will range from 35%-45% of the Cell focusing in the northern portion of the Cell."

Cell 5174 totals approximately 163.7 acres. Using the mid-range (40%), approximately 65.5 acres are described for conservation within this Cell. To date, approximately 90.4 acres have been developed or are approved for development in this Cell, which includes 2.9 acres of the project site and 3.9 acres of covered road acreage. There are 31.2 acres within the Cell that are proposed for conservation, most of which is associated with JPR 04-11-19-02. There are approximately 41.7 undeveloped acres available within the northern portion of the Cell, located within areas described for conservation or that would functionally contribute to Proposed Constrained Linkage 17. In summary, with 31.2 acres proposed for conservation and 41.7 acres of undeveloped land potentially available for conservation (summing to 73.4 acres), Cell 5174 could achieve the mid-range goal of 65.5 acres of conservation with development of the project site considered. Therefore, development of the project site would not impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

Cell 5279

A portion of the site is located in Cell 5279. As stated in Section 3.3.15 of the MSHCP, "Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 18. Conservation within this Cell will focus on agricultural land. Areas conserved within this Cell will be connected to agricultural land proposed for conservation in Cell #5275 to the west and in Cell #5372 to the south. Conservation within this Cell will range from 5%-15% of the Cell focusing in the southwestern portion of the Cell."

Cell 5279 totals approximately 159.7 acres. Using the low range (5%), approximately 8.0 acres are described for conservation within this Cell. To date, all of Cell 5279 has been proposed for development, precluding Cell 5279 from reaching its low-range goal. However, the 0.4-acre portion of the project within this Cell includes road improvements within a covered road (Keller Road). Covered roads are exempt from reserve assembly requirements because their impacts have been considered in MSHCP preparation. Therefore, development of the project site would not further impede the conservation goals for Proposed Constrained Linkage 17, nor result in issues regarding fragmentation.

b. **Rough Step.** The project is within Rough Step Unit 6 which tracks four vegetation types: coastal sage scrub; grasslands; riparian scrub, woodland, forest; and woodlands and forests.

MSHCP baseline vegetation communities (1994) within the project site for those tracked by this Unit consist of costal sage scrub and grassland (Exhibit C). All vegetation categories were in Rough Step at the time of these Findings and the project does not conflict with Rought Step. However, the Rough Step Unit 6 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 County 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.

c. **Project Documentation.** The original JPR 09-12-14-01 submittal materials provided by the Permittee included an a. MSHCP Compliance Review Worksheet (November 17, 2009), and the following prepared by HELIX Environmental Planning, Inc.: a Focused Burrowing Owl Survey of the Hanna Property (June 19, 2008), a Jurisdictional Delineation Report (July 3, 2008), and a Keller Crossing Habitat Evaluation and Acquisition Negotiation Strategy Biological Analysis (July 24, 2009).

JPR amendment submitted materials provided by the Permittee included a JPR Application Form (April 22, 2024), and the following reports prepared by Glenn Lukos Associates, Inc. (GLA): a Biological Technical Report (*Report*; June 2024), a Jurisdictional Delineation report (JD Report; March 18, 2022), and Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis (DBESP; June 2024).

d. **Project Location.** The proposed project is located in unincorporated Riverside County, north and south of Keller Road, east of Leon Road, and west of Washington Street (Exhibit A). It is located in the south-central portion of the MSHCP Area (Exhibit B).

e. **Project Description.** The project site is currently undeveloped, used for agricultural purposes, and surrounded by either rural residential or open space. The proposed project is reported to be for a residential development including retirement care facilities. The project is adjacent to State Route 79 (SR-79), and has been planned to accommodate the future expansion of SR-79. The expansion of SR-79

is not going to be implemented by the project. The property was burned in April 2008, but the major vegetation types on site are non-native grasslands and Riversidean sage scrub (disturbed and undisturbed). There is a small area (less than 0.1 acre) of disturbed mulefat scrub ~~southern willow scrub~~ on site. The majority of the site falls within Cells 5173 and 5169, both of which focus Conservation efforts on the northern portion of the Cells. The project has set aside Conservation in the northern portion of these Cells, per the Criteria and has maximized the amount of Conservation on the northwestern edge of the project site. Therefore, with the Conservation of the ~~61.1~~ 61.4 acres, the project does contribute to Reserve Assembly requirements.

According to the *Report*, the proposed project site consists of regularly maintained undeveloped land, much of which is comprised of disced lands and highly compacted soils. The topography slopes downward from the north to south/southeast from 1,587 feet to 1,422 feet above mean sea level. Baseline vegetation communities (1994) or land cover types within the proposed project site includes agricultural land, chapparal, coastal sage scrub, developed or disturbed land, and grassland (Exhibit C).

Soil series within the proposed project site include: Altamont clay; Auld clay; Buchenau silt loam; Cajalco fine sandy loam; Cajalco rocky fine sandy loam; Chino silt loam, drained, saline-alkali; Escondido fine sandy loam; Friant fine sandy loam; Grangeville fine sandy loam; Lodo gravelly loam; Lodo rocky loam; Monserate sandy loam; Porterville clay; Porterville clay, moderately deep, slightly saline-alkali; Porterville gravelly clay; Vallecitos loam; Vallecitos loam, thick solum variant; Vista coarse sandy loam; Wyman fine sandy loam (Exhibit D).

These amended Findings include 32.0 acres of off-site improvements, as well as impacts to Section 6.1.2 riparian/riverine resources, that were not part of the original JPR (Exhibit F). Impacts to Section 6.1.2 riparian/riverine resources are further discussed in Section 6.1.2 below. Of the 32.0-acre off-site improvements 27.1 acres are located within MSHCP Criteria Area (Cells 5169, 5173, 5174, 5175, 5275, and 5279). As such, the 27.1-acre off-site improvements are the subject of these JPR Findings (hereafter referred to as "**amended project site**").

All impacts are permanent, and no temporary impacts are proposed (Exhibit E). Off-site permanent impacts will result from road improvements and associated utilities. The proposed project includes off-site road improvements to Winchester Road/Highway 79 and Keller Road, both of which are MSHCP Covered Roads. According to the *Report*, road improvements (curb-adjacent landscaping, sidewalk, roadway paving) will remain within the 184-foot allowable width for Winchester Road/Highway 79 and 100-foot allowable width for Keller Road. Additionally, portions of Winchester Road and Keller Road which were previously considered as on-site impacts in the original JPR, are being considered as off-site improvements as these are part of existing right-of-way. Furthermore, of the 27.1-acre off-site impacts, the project is proposing improvements to occur to Pourroy Road even though it is not a MSHCP Covered Road. Based on the RCA's analysis, the proposed improvements along Pourroy Road, north of Keller Road, will occur south of areas described for conservation. In communications between the RCA

and County EPD, no further improvements are planned for Pourroy Road to the north. The RCA would not consider any further improvements to the north allowable by the MSHCP.

CONSERVATION MEASURE. All proposed MSHCP Conservation Lands associated with the project will be placed into MSHCP conservation prior to receiving a grading permit.

Other Plan Requirements (MSHCP Volume I)

Section 6.1.2 – Was Riparian/Riverine/Vernal Pool Mapping or Information Provided?

Yes. There are riparian/riverine resources on the proposed project site. There are no vernal pools and/or fairy shrimp habitat on site. There is no suitable riparian bird habitat on the amended project site.

Section 6.1.3 – Was Narrow Endemic Plant Species Survey Information Provided?

Yes. ~~The~~ Portions of the amended project site are located within a Narrow Endemic Plant Species Survey Area (NEPSSA) for Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudeleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Section 6.3.2 – Was Additional Survey Information Provided?

Yes. ~~The~~ Portions of the amended project site are located in a Criteria Area Species Survey Area (CASSA) for Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), Parish's brittlescale (*Atriplex parishii*), thread-leaved brodiaea (*Brodiaea filifolia*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), round-leaved filaree (*California macrophylla*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), and little mousetail (*Myosurus minimus*). The amended project site is also located in an Additional Survey Area for burrowing owl (*Athene cunicularia*).

Section 6.1.4 – Was Information Pertaining to Urban/Wildland Interface Guidelines Provided?

Yes. The property is located near Conservation Areas.

Comments on Other Plan Requirements:

a. **Section 6.1.2**: The following discusses each requirement under this policy.

Riparian/Riverine. Based on the information provided by HELIX Environmental Planning, Inc. (HELIX) in their report dated July 24, 2009, there are numerous drainages on site. The water in these

drainages flows across the site in a southwest direction and ultimately flow across Winchester Road/SR-79 (eastern border of site) and into Tucolata Creek. The Permittee will regulate the project design to avoid any southern willow scrub supporting riparian species as well as the main drainages on site, which convey water to Tucolata Creek. The project applicant has not submitted project plans at the time of this JPR, only a development footprint has been established. Since the headwaters of the riverine/riparian drainages on site are within the Conservation Area, the Permittee will ensure through environmental constraints sheets, or some other method to ensure resources are avoided by specific development plants. Through project conditions and final project design, the Permittee will protect the riverine/riparian resources on site; therefore, the project at this time would not conflict with Section 6.1.2 of the MSHCP.

As noted above, in the original JPR, a development footprint was not established and avoidance of riparian/riverine resources was proposed. However, based on the current project design, the proposed project will result in permanent impacts to riparian/riverine resources. According to the *DBESP*, impacts are unavoidable due to the location of the streambeds, erosion control requirements, and the infrastructure improvements necessary to support the development and provide the necessary flood control protection required by the County and the Riverside County Flood Control District.

The project site was evaluated for riparian/riverine resources by GLA on February 2 and July 14, 2021. According to the *Report*, the proposed project site includes 0.6 acre of riparian/riverine resources, which include 10 ephemeral earthen drainages (i.e., Drainages A, A-1, B, C, D, E, F, G, H, and I). Apart from Drainages A, A-1, H, and I, a majority of these drainages originate on site and convey surface runoff and/or storm water runoff from the adjacent hillsides to the north, flowing south. The drainages occur on vacant agricultural lands with a majority of the site being disked on a regular basis according to the *Report*. Off-site flows, Drainages A, A-1, H, and I, are ultimately conveyed east below State Route 79 (SR 79), then flowing southwest to Warm Springs Creek, and onward to Murrieta Creek.

Of the 0.6 acre of riparian/riverine resources, 0.2 acre would be avoided and included within the 61.4-acre proposed MSHCP Conservation area. The proposed project would result in permanent impacts to 0.4 acre of riparian/riverine, specifically 0.4 acre on site and less than 0.1 acre off site[4]. According to the *DBESP*, the habitat quality of the impacted drainages is currently low-functioning and provides limited resource value to downstream resources because it is unlikely that improvement to water quality, including pollutant trapping and filtration, occurs due to a lack of vegetation within these drainages. The lack of suitable habitat for most species also indicates these drainages have low biological function and value. Furthermore, the hydrological functions and values of these drainages are limited to sediment retention and transport.

[4] The amended project would result in off-site permanent impacts to less than 0.1-acre of riparian/riverine resources that occur outside of Criteria Cells and therefore are not included as part of this JPR review nor these Findings.

Compensatory mitigation is proposed at a 3:1 ratio for the permanent loss of 0.4-acre of riparian/riverine resources. Mitigation will include the following:

- Purchase of 0.4 acre of re-establishment credits at the Riverpark Mitigation Bank
- Purchase of 0.4 acre of rehabilitation credits at the Riverpark Mitigation Bank
- Purchase of 0.4 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank

Indirect impacts will be addressed with the implementation of Urban/Wildlife Interface Guidelines per Section 6.1.4 of the MSHCP and implementation of Appendix C of the MSHCP, both of which are described below.

MITIGATION MEASURE. Permanent impacts to 0.4 acre of riparian/riverine resources will be offset by the purchase of credits from an approved mitigation bank (e.g., Riverpark Mitigation Bank and Barry Jones/Skunk Hollow Mitigation Bank) at a 3:1 ratio, including re-establishment credits at 1:1 ratio, rehabilitation credits at 1:1 ratio, and preservation credits at 1:1 ratio.

Vernal Pool/Fairy Shrimp. According to the *Report* and DBESP, GLA assessed the amended project site for and vernal pools, including features with the potential to support fairy shrimp, on February 3, and July 14, 2021. According to the *Report* and *DBESP*, the project site does not contain vernal pools, or other features that could support fairy shrimp. No ponding was observed during 2021 biological surveys, and the project site lacks the suitable topography (including localized depressions) to support prolonged inundation necessary to support fairy shrimp. In addition, the project site is mapped as containing fine sand and sandy loam soils, which are generally not associated with vernal pools. While clay soils are mapped within the project site, according to GLA field observations of the soils showed a lack of clay soil components. Additionally, no plants were observed that are associated with vernal pools and similar habitats that experience prolonged inundation. Therefore, focused surveys for fairy shrimp were not warranted.

Riparian Birds. According to the *Report*, the project site includes less than 0.1 acre of disturbed mulefat that was of low quality. This small, isolated patch is not contiguous and does not support the structure for riparian bird species, specifically for least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*) or western yellow-billed cuckoo (*Coccyzus americanus*). Therefore, due to the lack of suitable riparian habitat, focused surveys were not warranted.

Based on the information provided in the *Report* and *DBESP*, the project demonstrates consistency with Section 6.1.2 of the MSHCP.

b. **Section 6.1.3 NEPSSA Plants**: The project site is located within a NEPSSA for Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis. HELIX conducted an initial habitat assessment on April 27, 2005, and then again on April 24, 2008, and June 5, 2008. No suitable habitat was identified for these CASSA plants, and therefore, no focused surveys were conducted. ~~Based on the lack of suitable habitat on site for the NEPSSA plants, the project does not conflict with Section 6.1.3 of the MSHCP.~~

Portions of the project site are located in a NEPSSA for Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocornois. A habitat assessment and focused surveys were conducted by GLA on March 16 and May 5, 2021. According to the *Report*, suitable habitat was determined absent for spreading navarretia (lack of suitable vernal pools, playas, chenopod scrub, and marshes and swamps), California Orcutt grass (lack of suitable vernal pools), and Wright's trichocoronis (lack of suitable meadows and seeps, marshes and swamps, vernal pools). According to the *Report*, suitable habitat for Munz's onion, San Diego ambrosia, and many-stemmed dudleya was present; therefore, focused surveys were conducted for these species. Rainfall for the months leading up to the rare plant surveys conducted in 2021 was average and conditions were normal for the area. Focused surveys for these species were negative.

Based on the information provided in the *Report*, the project demonstrates consistency with Section 6.1.3 of the MSHCP.

c. **Section 6.3.2. Additional Survey Needs and Procedures.** The following described Additional Survey Needs and Procedures applicable to the proposed project:

CASSA Plants: The project site is located in a CASSA for Davidson's saltscale, Parish's brittlescale, thread-leaved brodiaea, smooth tarplant, round-leaved filaree, Coulter's goldfields, and little mousetail. HELIX conducted an initial habitat assessment on April 27, 2005, and then again on April 24, 2008, and June 5, 2008. No suitable habitat was identified for these CASSA plants, and therefore, no focused surveys were conducted.

Portions of the project site are located in a CASSA for Parish's brittlescale, Davidson's saltscale, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, Coulter's goldfield, little mousetail, and mud nama. A habitat assessment and focused surveys were conducted by GLA on March 16 and May 5, 2021. According to the *Report*, suitable habitat was determined absent for Parish's brittlescale (lack of suitable chenopod scrub, playas, vernal pools), Coulter's goldfields (lack of playas, vernal pools, marshes and swamps), and mud nama (lack of suitable marshes and swamps). According to the *Report*, suitable habitat for Davidson's saltscale, thread-leaved brodiaea, and smooth tarplant was present; therefore, focused surveys were conducted for these species. Additionally, while there are no vernal pools present within the project site; little mousetail may also occur in alkaline annual grasslands unlike other species (e.g., California Orcutt grass or spreading navarretia). Therefore, for

additional certainty, this species was included. Rainfall for the months leading up to the plant surveys conducted in 2021 was average and conditions were normal for the area. Focused surveys for these species were negative.

Burrowing Owl. The project site is also located in an Additional Survey Area for burrowing owl. HELIX determined that the majority of the site has suitable habitat for the burrowing owl, and therefore, conducted focused burrowing owl surveys on April 1, 7, 8, 10, 15, 18, 21, and 23, 2008. HELIX reports that there were no owls or their sign on the site during their focused survey effort in 2008. ~~Based on the lack of suitable habitat and identified species on site, the project does not conflict with Section 6.3.2 of the MSHCP.~~

Portions of the project site are located within an Additional Survey Area for burrowing owl. In accordance with the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (RCA 2006), GLA conducted a *Step I Habitat Assessment* and *Step II-A Focused Burrow Search* concurrently on March 30, 2021. According to the *Report*, suitable habitat and suitable burrows and burrow complexes were present; therefore, a *Step II-B Focused Burrowing Owl Survey* was conducted by GLA on April 16, 20, 22, and 29, May 11, 14, and 18, July 9 and 29, and August 12 and 18, 2021. According to the *Report*, no burrowing owl or burrowing owl sign (e.g., whitewash, feathers, tracks, or pellets) were observed. However, because the amended project site contains habitat suitable for burrowing owl, the following measure is applicable:

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 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 in the *Report*, the project demonstrates consistency with Section 6.3.2 of the MSHCP.

d. **Section 6.1.4 Urban/Wildlife Interface Guidelines**: Future and existing Conservation Areas are located within the project site. To preserve the integrity of areas dedicated as MSHCP Conservation Areas that are proposed to occur, the guidelines contained in Section 6.1.4 related to controlling adverse

effects for development adjacent to the MSHCP Conservation Area shall be implemented by the Permittee in their actions relative to the project. Specifically, the Permittee shall include as project conditions of approval the following measures:

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.**

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 Land Management team.**

iv. **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.**

v. **The invasive, non-native plant species listed in Table 6-2 of the MSHCP in approving landscape plans shall avoid the use of invasive species for the portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.**

CONSTRUCTION MEASURE. For the duration of construction, if areas are left bare and not under active ground disturbance for a period of 30 days or greater, these areas will be inspected by a qualified biologist for growth of stinknet (*Oncosiphon pilulifer*). If detected, this species shall be removed by a qualified landscape contractor with experience in native ecosystems by mechanical means (e.g., mowing, string trimming) or via application of herbicide by a California licensed applicator within 5 days of detection. These removal efforts will focus on removal prior

to seed setting/development. All material from these species will be bagged, removed, and disposed of off-site.

vi. Fencing/Walls 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 Land Management team.

vii. Manufactured slopes associated with the proposed site development shall not extend into the MSHCP Conservation Area.

e. **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 projects disturbance plus lateral limits of disturbance on either side of the stream shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.

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.**

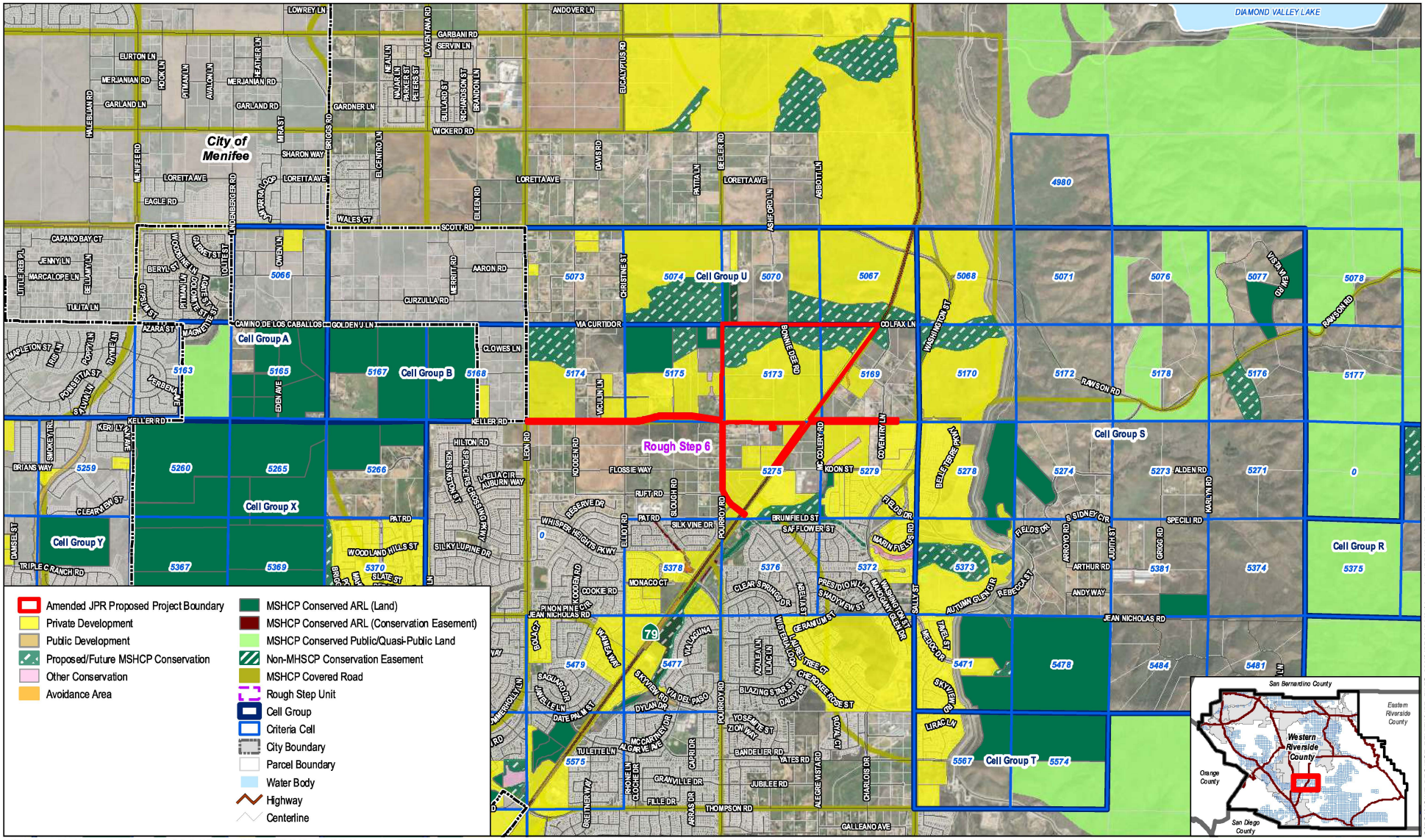
xii. **Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.**

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.

SNS/BS/TC



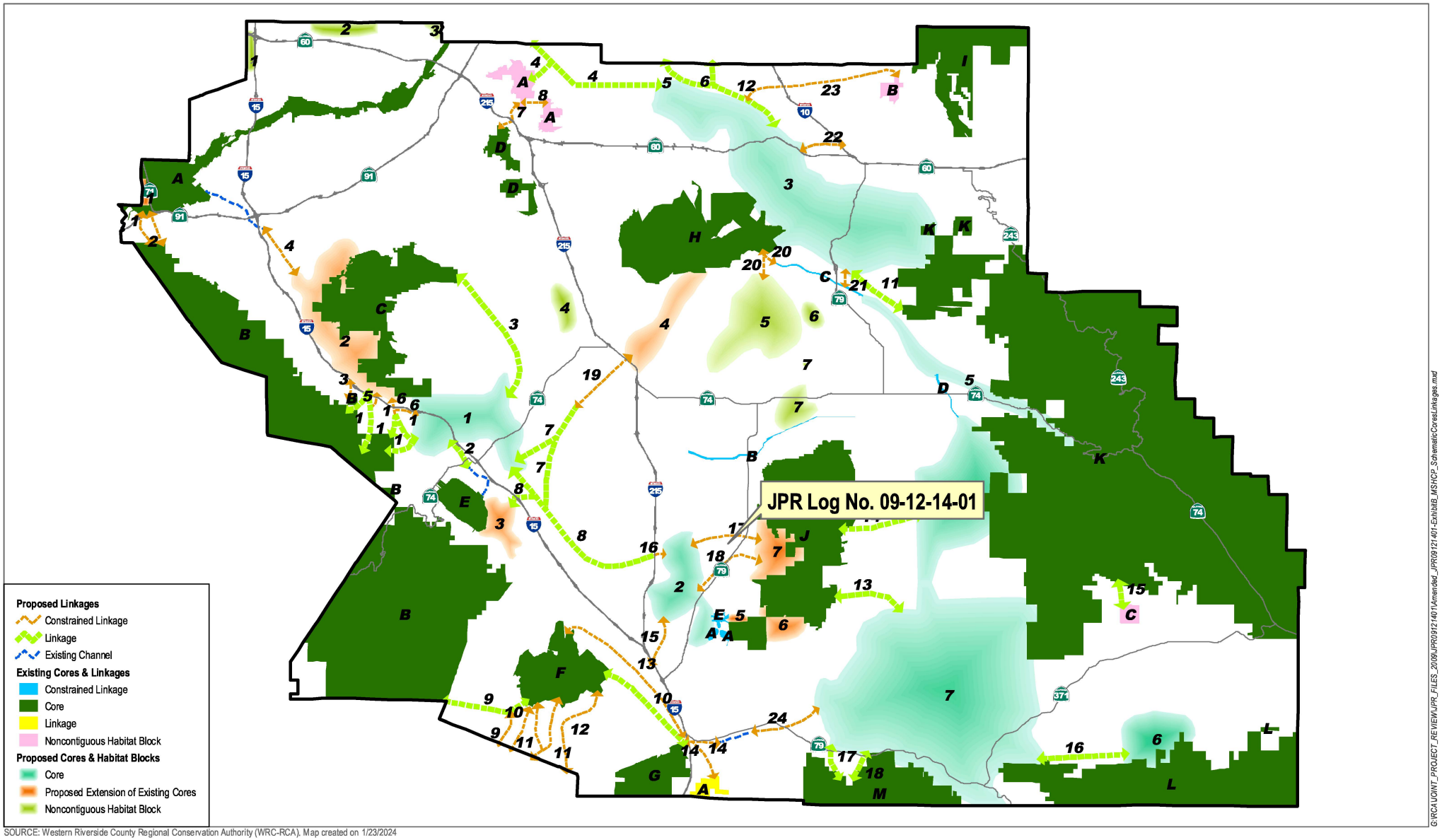
SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; Esri Basemap 2023. Map created on 4/23/2024.

r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)

0 1,500 3,000 Feet

EXHIBIT A

Amended JPR Log No. 09-12-14-01 - Regional



SOURCE: Western Riverside County Regional Conservation Authority (WRC-RCA). Map created on 1/23/2024

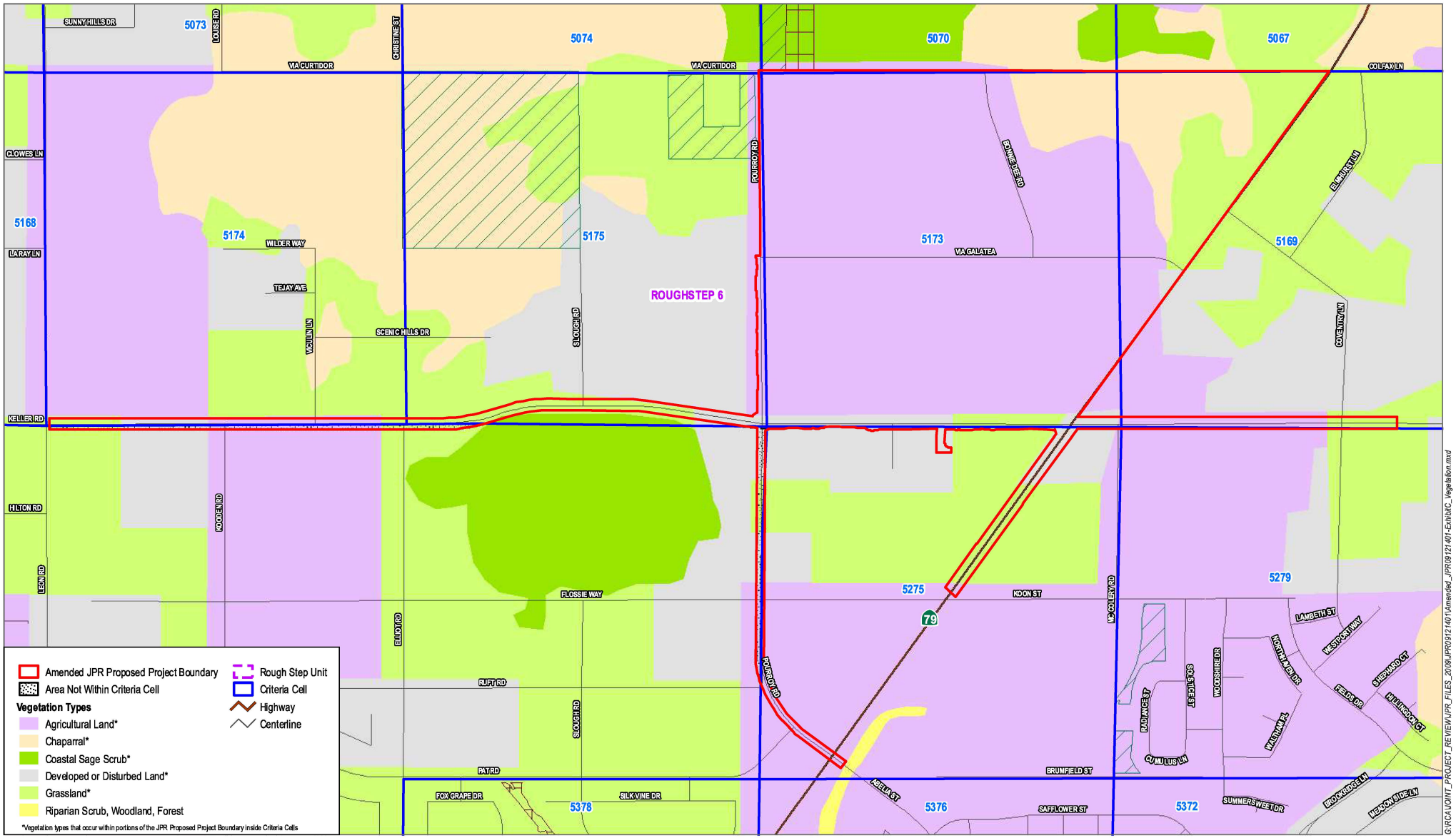
r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)

0 2 4 Miles

EXHIBIT B

Amended JPR Log No. 09-12-14-01 - Vicinity Map with MSHCP Schematic Cores and Linkages

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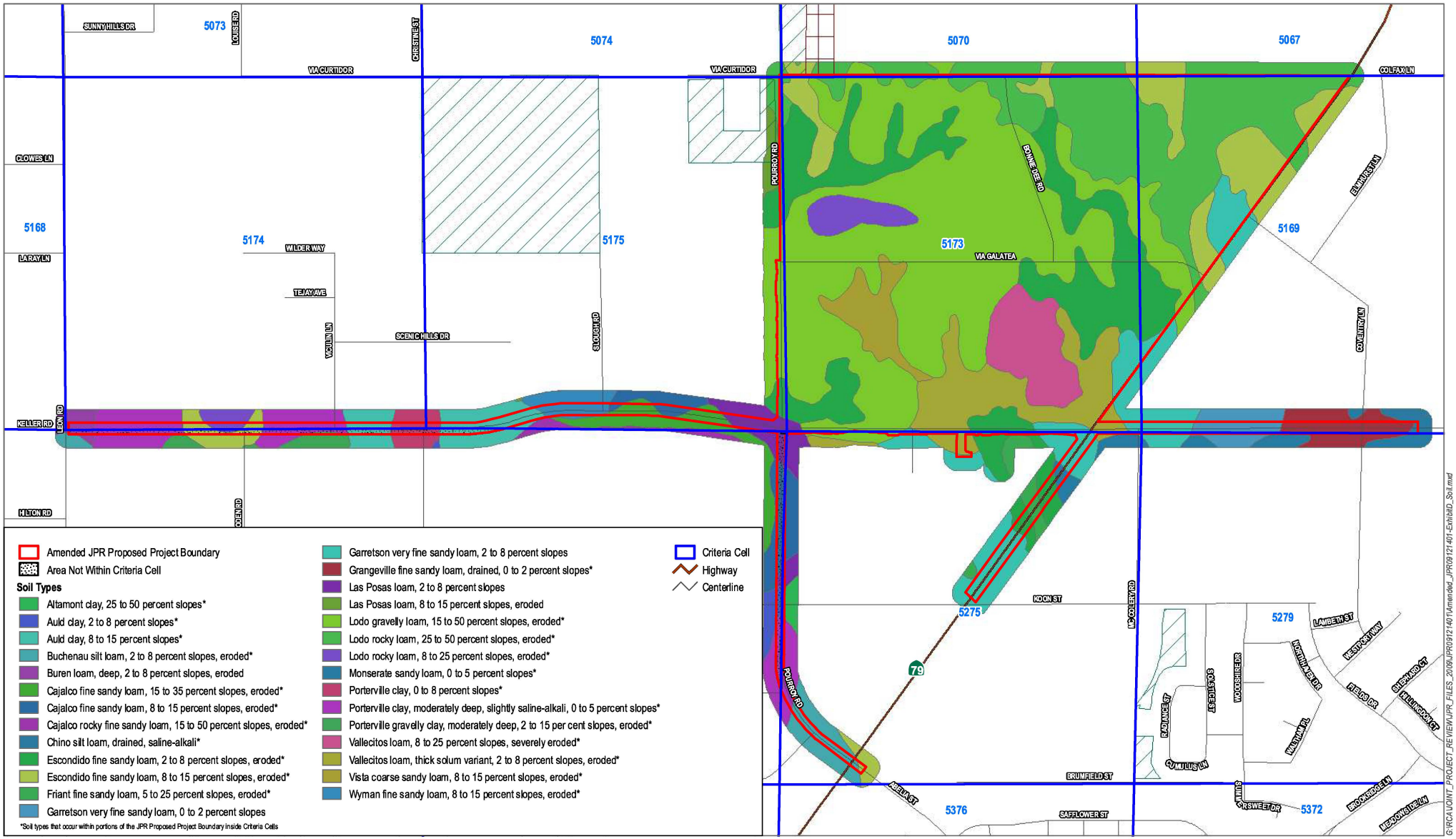
SOURCE: WRC-RCA MSHCP Baseline Vegetation (1994). Map created on 1/23/2024.

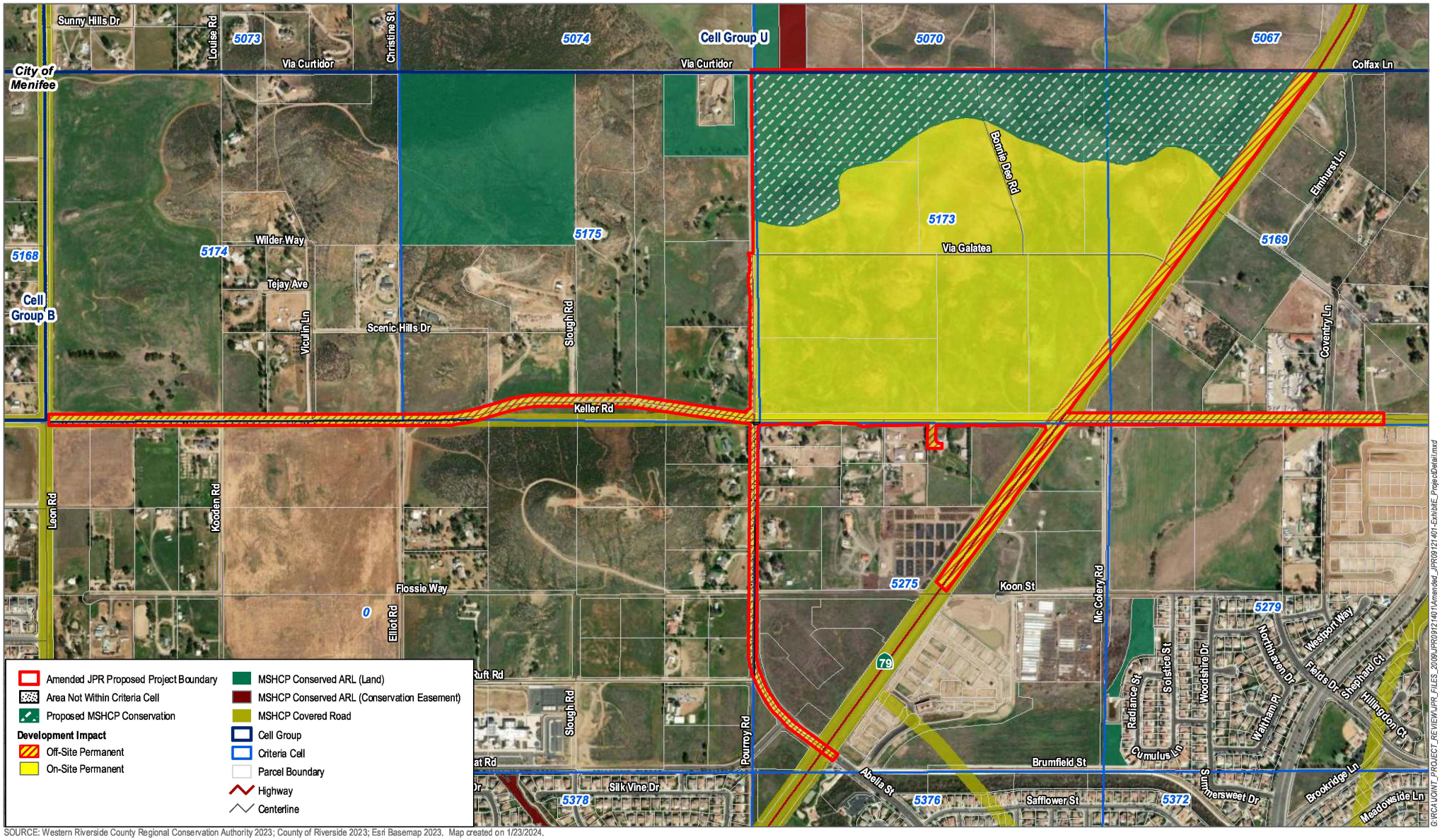
Regional Conservation Authority

r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)

EXHIBIT C

Amended JPR Log No. 09-12-14-01 - MSHCP 1994 Baseline Vegetation


SUNNY HILLS DR
5073
LOUISE RD
CHRISTINE ST
5074
5070
5067
VIA CURTIDOR
VIA CURTIDOR
COLFAX LN
POURROY RD
BONNIE DEE RD
ELMWOOD LN
CLOWES LN
5168
5174
WILDER WAY
5175
5173
VIA GALATEA
5169
LARAY LN
TEJAY AVE
VERLEN LN
SCENIC HILLS DR
SLOUGH RD
COVENTRY LN
KELLER RD
LEON RD
HILTON RD
JOSEPH RD
Amended JPR Proposed Project Boundary
Area Not Within Criteria Cell
Soil Types
Altamont clay, 25 to 50 percent slopes*
Auld clay, 2 to 8 percent slopes*
Auld clay, 8 to 15 percent slopes*
Buchenau silt loam, 2 to 8 percent slopes, eroded*
Buren loam, deep, 2 to 8 percent slopes, eroded
Cajalco fine sandy loam, 15 to 35 percent slopes, eroded*
Cajalco fine sandy loam, 8 to 15 percent slopes, eroded*
Cajalco rocky fine sandy loam, 15 to 50 percent slopes, eroded*
Chino silt loam, drained, saline-alkali*
Escondido fine sandy loam, 2 to 8 percent slopes, eroded*
Escondido fine sandy loam, 8 to 15 percent slopes, eroded*
Friant fine sandy loam, 5 to 25 percent slopes, eroded*
Garretson very fine sandy loam, 0 to 2 percent slopes
Garretson very fine sandy loam, 2 to 8 percent slopes
Grangeville fine sandy loam, drained, 0 to 2 percent slopes*
Las Posas loam, 2 to 8 percent slopes
Las Posas loam, 8 to 15 percent slopes, eroded
Lodo gravelly loam, 15 to 50 percent slopes, eroded*
Lodo rocky loam, 25 to 50 percent slopes, eroded*
Lodo rocky loam, 8 to 25 percent slopes, eroded*
Monserate sandy loam, 0 to 5 percent slopes*
Porterville clay, 0 to 8 percent slopes*
Porterville clay, moderately deep, slightly saline-alkali, 0 to 5 percent slopes*
Porterville gravelly clay, moderately deep, 2 to 15 per cent slopes, eroded*
Vallecitos loam, 8 to 25 percent slopes, severely eroded*
Vallecitos loam, thick solum variant, 2 to 8 percent slopes, eroded*
Vista coarse sandy loam, 8 to 15 percent slopes, eroded*
Wyman fine sandy loam, 8 to 15 percent slopes, eroded*
*Soil types that occur within portions of the JPR Proposed Project Boundary inside Criteria Cells
Criteria Cell
Highway
Centerline
5275
KOON ST
MCCONERY RD
5279
LAMBETH ST
WESTRIDGE WAY
NORTHRIDGE DR
SHERIDAN ST
KILLINGSWORTH ST
ARLEIGH CT
SOUTHCREST CT
WOODSHIRE DR
MORAINE AVE
MCADAMS ST
QUIMBY LN
BRUMFIELD ST
ABELIA ST
5376
SAFFLOWER ST
5372
ROCKRIDGE LN
MEADOWSIDE LN
SWEETBRIER DR
SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; USDA/NRCS Soils 2020
r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)
0 250 500 Feet
EXHIBIT D
Amended JPR Log No. 09-12-14-01 - Soil
G:\RCA\JOINT_PROJECT_REVIEW\JPR_FILES_2009\JPR09121401\Amended_JPR09121401-ExhibitD_Soil.mxd



SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; Esri Basemap 2023. Map created on 1/23/2024.

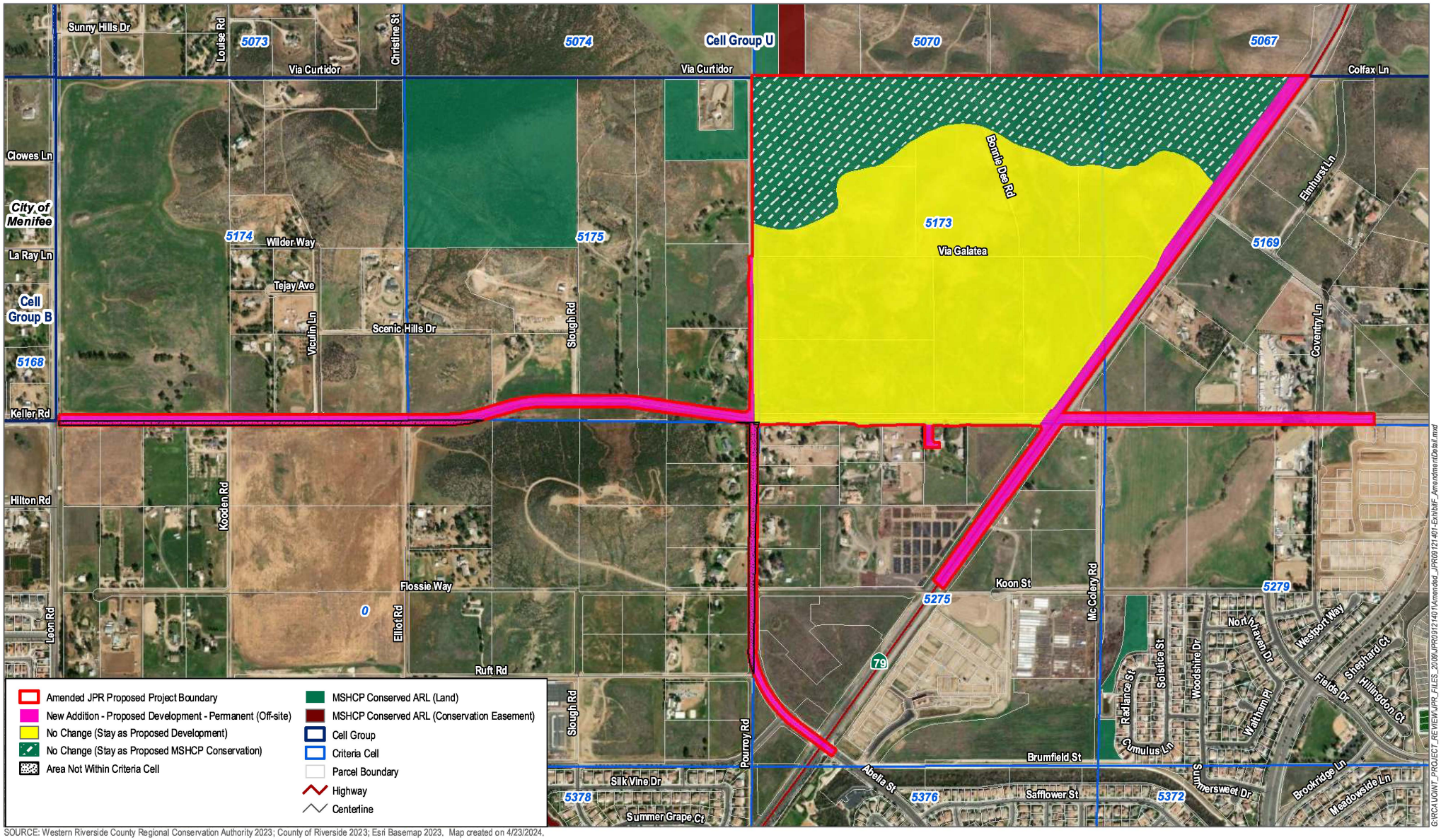
r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)

0 250 500 Feet

G:\RCA\JOINT_PROJECT_REVIEW\JPR_FILES_2009\JPR091214O1\Amended_JPR091214O1-ExhibitE_ProjectDetail.mxd

EXHIBIT E

Amended JPR Log No. 09-12-14-01 - Project Detail



SOURCE: Western Riverside County Regional Conservation Authority 2023; County of Riverside 2023; Esri Basemap 2023. Map created on 4/23/2024.

r14242
Permittee: County of Riverside
HANS01995/TTM38163 (Keller Crossing Residential Development Project)

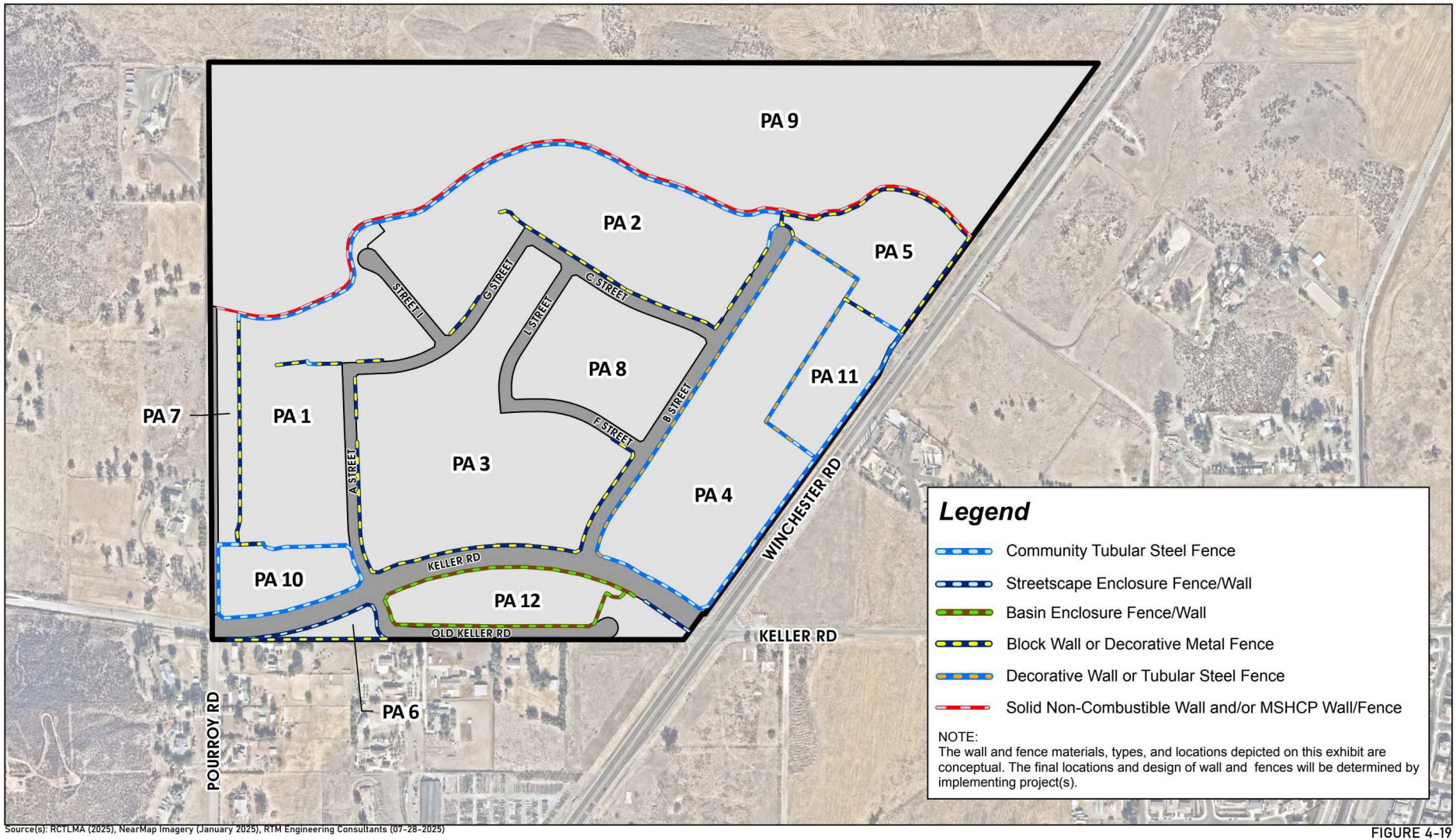
0 250 500 Feet

©:\RCA\JOINT_PROJECT_REVIEW\JPR_FILES_2006\JPR09121401\Amended_JPR09121401-ExhibitF-_AmendmentDetail.mxd

EXHIBIT F

Amended JPR Log No. 09-12-14-01 - Amendment Detail

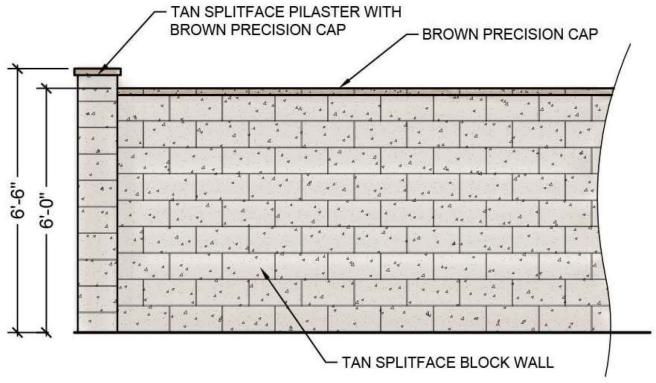
APPENDIX D – CONCEPTUAL WALL AND FENCE PLANS



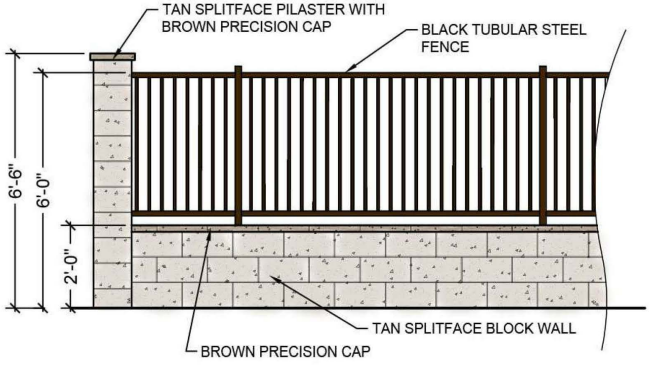
Source(s): RCTLMA (2025), NearMap Imagery (January 2025), RTM Engineering Consultants (07-28-2025)

FIGURE 4-19

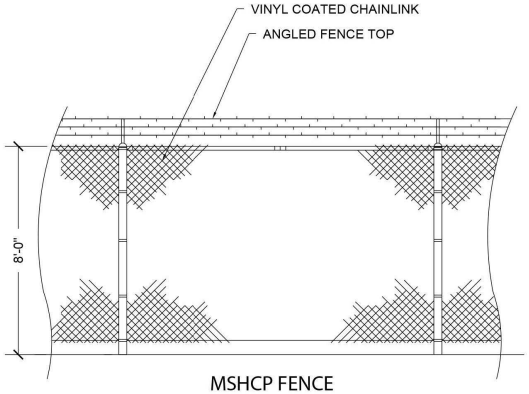
CONCEPTUAL WALL AND FENCE PLAN



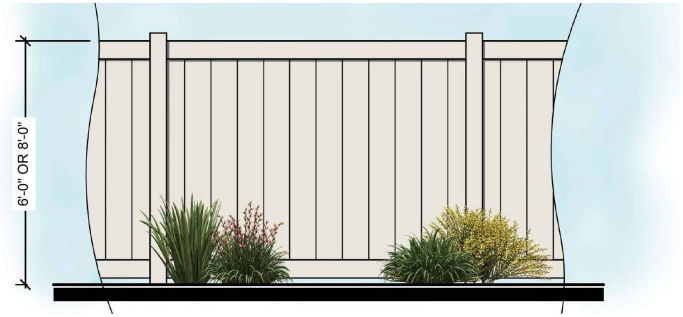
DECORATIVE BLOCK WALL, STREETSCAPE/BASIN ENCLOSURE WALL



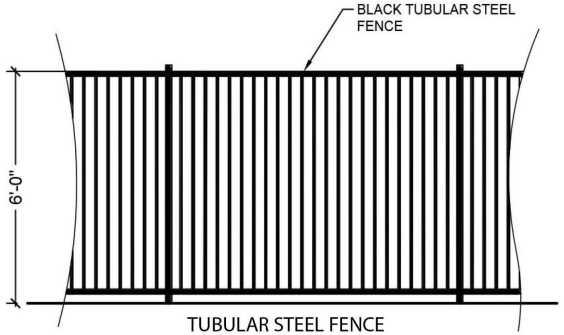
BOUNDARY/STREETSCAPE ENCLOSURE FENCE



MSHCP FENCE



DECORATIVE METAL FENCE



TUBULAR STEEL FENCE

Note: The wall and fence materials and types, depicted on this exhibit are conceptual. The final design of wall and fences will be determined by implementing project(s).

Source(s): BMLA (03-14-2025)

FIGURE 4-20

WALL AND FENCE DETAILS