BIOLOGICAL TECHNICAL REPORT

FOR

KELLER CROSSING RESIDENTIAL DEVELOPMENT PROJECT AND OFF SITE IMPROVEMENTS

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

Prepared For:

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March 2022

INFORMATION SUMMARY

A. Report Date: March 2022

B. Report Title: Biological Technical Report for the Keller Crossing Residential Development Project and Off Site 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

The proposed Keller Crossing Residential Development Project (Project) Project consists of applications for the first amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01; herein referred to as "SP 380A1"), a General Plan Amendment (GPA21004), a Change of Zone (CZ2100012), and a Tentative Tract Map (TTM38163) to allow for future of development of approximately 433 units on an approximate 196-acre Project with up to 13.3 acres of "Commercial Retail" land uses, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development-Very Low Density Residential (CD-VLDR)" land uses, 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses[1], and 16.0 acres of major circulation facilities. A more detailed project description is contained in Section 1.4 of this assessment report.

The 196.04-acre On Site Project and its 61.42-acre conservation open space area[2] was approved as part of Joint Project Review (JPR) Number 09-12-14-01 on January 25, 2010.[3] The Project Habitat Acquisition and Negotiation Strategy (HANS) approval [HANS 1995] for the On Site Project occurred on the same date.

The On Site 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 Off Site are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and the Southwest Area Plan Subunit 4 – Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch of the MSHCP.

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[1] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

[2] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

[3] The 2011 biological resources report prepared by HELIX Environmental Planning, Inc. contained the following caveats regarding the acreage of the Project:

1) Acreage shown is from Riverside County Land Information System (RCLIS) website and is the larger of recorded/mapped acreage shown for APN; and
2) **RCLIS website total is 4.06 acres smaller than HELIX mapped total. HELIX site totals (used throughout this report) reflect the above parcels plus one-half width of the right-of-way for Winchester Road and Keller Road.

The acreages described in the 2011 HELIX report numbers differed by less than one acre as compared to the project totals identified in 2022. This is, more than likely, due to the more advances in Geographic Information System (GIS) technology between the HELIX report date (2011) and current dates (2022).

Specifically, the On Site Project falls within or portions of Criteria Cells 5169 and 5173 as well as Cell Group U. The Off Site Project is also partially or wholly located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5170, 5173, 5174, 5175, 5275, 5278, 5279, and 5969. The Off Site Project is also within Cell Groups S, U, and V.

The conservation required for the On Site Project through the approved JPR was 61.10 acres in the northern portion of the Project site. This conservation will contribute to the Regional Conservation Authority's (RCA) reserve assembly. It is important to note that the acreage of conservation set aside as part of the MSHCP totals 61.10 acres but the Project Specific Plan requires the conservation of 61.42 land. As a result, 61.42 acres of land is being set aside to comply with the open space requirements of the Specific Plan. This also complies with, and exceeds the conservation requirement of the approved JPR for the MSHCP.

The impact footprint documented in the approved JPR has not changed; therefore, the JPR and HANS determinations for the On Site Project do not need to be re-evaluated and the On Site Project would be considered consistent with the cell criteria under the MSHCP. Since approval of the On Site Project JPR, off site improvements are being conditioned and required by the County of Riverside (County); therefore, a JPR (and HANS, where necessary) will need to be completed for these off site improvements. HANS is not expected to be necessary as the off site improvements are either covered roads under the MSHCP and/or are utility improvements in the criteria area. Based on the types of activities that would occur from these off site improvements, JPR for the Project would address consistency with the MSHCP.

The Project site does not contain a special-status vegetation community.

Portions of the On and Off 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.

No NEPSSA or CAPSSA plant species are present on site; 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] 4.2), the proposed On and Off Site 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.

Two special-status wildlife species, the northern harrier and the California horned lark, were observed within the On and/or Off Site Project. Impacts to these species may be significant under CEQA, however each of these species are covered under the MSHCP conservation goals and therefore, On and Off Site Project impacts to these species and suitable nesting habitat for these species are addressed through consistency with, and participation in, the MSHCP, which would reduce impacts to a less than significant level.

No burrowing owls were detected within the On or Off Site 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 that no owls are present and/or impacts to the burrowing are mitigated to a less than significant level.

Potential jurisdictional features identified within the On and Off Site 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 Order from the Regional Board will be required and will need to be secured to offset permanent impact to 0.38 acre of Regional Board jurisdiction and 0.48 acre of CDFW jurisdiction. No U.S. Army Corps of Engineers (Corps) jurisdiction is present nor would it be impacted. Compensatory mitigation for these impacts is being proposed at various mitigation banks as noted below:

- The purchase of 0.76 acre of re-establishment credits at the San Luis Rey Mitigation Bank (for Regional Board impacts);

- The purchase of 0.48 acre of rehabilitation credits at the Riverpark Mitigation Bank (for CDFW impacts);

- The purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank (for CDFW impacts); and

- The purchase of 0.48 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank (for CDFW and Regional Board impacts).

The Project will also result in permanent impact to 0.48 acre of MSHCP riparian/riverine habitat. Since these areas cannot be avoided, a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be required to compensate for these impacts. This impact will need to be mitigated at various mitigation banks as noted below:

- Purchase of 0.48 acre of rehabilitation credits at the Riverpark Mitigation Bank;
- Purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank; and
- Purchase of 0.48 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank

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

Ultimately, the On and Off Site Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the On and Off Site 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 196.04-acre Keller Crossing Residential Development Project (the Project) and its 44.36 acres of off site infrastructural improvements; collectively totaling 240.40 acres, located in the Community of French Valley, Riverside County, California. The on site portion of the property is considered as "The On Site Project" and the off site portion of the project is referenced as "The Off Site Project." Collectively, the on site and off site 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 240.40-acre Study Area, 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 1600–1616 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 Study Area comprises approximately 240.40 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 On Site 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 off site infrastructural improvements proposed within the Off Site Project located along portions of Keller Road between Leon Road and Washington Street; portions of Pourroy Road between the northwestern On Site Project boundary and Winchester Road, Washington Street between Keller Road and Koon Street; and Winchester Road between the northeastern boundary of the On Site 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].

1.3 Project History

The 196.04-acre On Site Project and its 61.42-acre conservation open space area was approved as part of Joint Project Review (JPR) Number 09-12-14-01 on January 25, 2010[4]. The Project Habitat Acquisition and Negotiation Strategy (HANS) approval [HANS 1995] for the On Site Project occurred on the same date. A copy of the JPR/HANS approval is attached as Exhibit 4.

As noted, the conservation required for the On Site Project through the approved JPR was 61.10 acres in the northern portion of the Project. This conservation will contribute to the Regional Conservation Authority's (RCA) reserve assembly.

The proposed development for the On Site Project is being updated to account for existing market conditions; however, the impact footprint documented in the approved JPR will remain the same; therefore, the JPR and HANS determinations for the On Site Project do not need to be re-evaluated. Since approval of the JPR, the off site improvements have changed and additional off site infrastructural improvements are being conditioned and required by the County of Riverside (County); therefore, a new JPR (and HANS, where necessary) will occur for the off site improvements.

1.4 Project Description

The proposed Project consists of applications for the first amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01; herein referred to as "SP 380A1"), a General Plan Amendment (GPA210004), a Change of Zone (CZ2100012), and a Tentative Tract Map (TTM38163) to allow for future of development of the approximately 433 units on an

[4] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

approximate 196-acre Project with up to 13.3 acres of "Commercial Retail" land uses, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development-Very Low Density Residential (CD-VLDR)" land uses, 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses[5], and 16.0 acres of major circulation facilities.

This EIR analyzes the physical effects associated with all components of the proposed Project, including planning, construction, and ongoing operation. 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)

The Project's applications, as submitted to the County of Riverside by the Project Applicant, are herein incorporated by reference pursuant to State CEQA Guidelines § 15150 and are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501. All other discretionary and administrative approvals that would be required of the County of Riverside or other government agencies are also within the scope of the Project analyzed in this EIR.

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 future development of the 196.0-acre Project site with up to 176,000 s.f. of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development – Very Low Density Residential (CD-VLDR)" land uses (with no dwelling units allocated or proposed to this area), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. The principal discretionary actions required of the County of Riverside to implement the Project are described in detail on the following pages. Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in **Error! Reference source not found.**, ***Error! Reference source not found.***, at the end of this Section.

[5] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

General Plan Amendment No. 210004

The Riverside County General Plan assigns a land use designation to all properties within the County's jurisdiction. Development is required by law to comply with the provisions of the County's General Plan. The Project Applicant is seeking a General Plan Amendment (GPA No. 210004) to modify and reconfigure the adopted General Plan and Southwest Area Plan (SWAP) land use designations for the 196.0-acre Project site to reflect the land uses proposed as part of SP 380A1 (discussed below).

Specifically, under existing conditions, the Project site is designated for 9.9 acres of CD-VLDR land uses, 18.3 acres of "Low Density Residential (LDR)" land uses, 13.9 acres of MDR land uses, 39.5 acres of "Mixed Use," 37.8 acres of CR land uses, 61.1 acres of "Open Space-Conservation (OS-C)," and 20.6 acres of circulation. As part of GPA No. 210004, the 196.0-acre Project site would be redesignated to include 61.2 acres of MDR, 14.1 acres of MHDR, 7.3 acres of HDR, 1.0 acre of CD-VLDR, 13.3 acres of CR, 10.5 acres of OS-R, 61.4 acres of OS-CH, 11.2 acres of OS-W, and 16.0 acres of circulation.

The MDR land use designation is intended to accommodate single-family detached and attached residences with a density range of 2 to 5 dwelling units per acre with minimum lot sizes ranging from 5,500 to 20,000 s.f. The MHDR land use designation is intended to accommodate single-family detached and attached residences with a density range of 5 to 8 dwelling units per acre, with minimum lot sizes ranging from 4,000 to 6,500 s.f. The HDR land use designation is intended to accommodate single-family attached residences and multi-family dwellings with a density range of 8 to 14 dwelling units per acre. The CD-VLDR land use designation is intended to accommodate detached single family residential dwelling units and ancillary structures on large parcels with a density range of 1-2 dwelling units per acre, with minimum lot size of one acre. The CR land use designation is intended to accommodate local and regional serving retail and service uses. The OS-R land use 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, by law, to comply with the provisions of the Zoning Ordinance. Under existing conditions, the Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of an adopted specific plan. As such, the 196.0-acre Project site is subject to the zoning classifications and requirements established by the adopted Specific Plan No. 380, which generally reflect the land use designations applied to the site as part of the adopted Specific Plan No. 380. A Change of

Zone (CZ No. 2100012) is proposed as part of the Project, which would modify and establish the Planning Area boundaries, permitted uses, and development standards throughout the 196.0-acre Project site in order to reflect the land uses proposed as part of SP 380A1.

Specific Plan No 380, Amendment No. 1

Proposed Land Uses

The Project entails the first amendment to the Keller Crossing Specific Plan No. 380 (SP 380A1). The proposed SP 380A1 would allow for up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of Community Development-Very Low Density Residential (CD-VLDR) land uses (with no dwelling units allocated or proposed as part of SP 380A1), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. 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 proposed SP 380A1 would include the following:

Medium Density Residential (MDR): SP 380A1 would allow for a total of 277 single-family dwelling units on 61.2 acres within Planning Areas (PAs) 1, 2, 3, and 5 with an overall density of 4.5 dwelling units per acre (du/ac). The MDR land use would allow for the development of 47 dwelling units on 10.6 acres with minimum 7,000 s.f. lots within proposed PA 1, 131 dwelling units on 29.8 acres with minimum 6,000 s.f. lots within proposed PAs 2 and 3, and 99 dwelling units on 20.8 acres with minimum 5,000 s.f. lots within proposed PA 5. Access to PAs 1, 2, 3 and 5 would be accommodated from Keller Road via proposed Streets A, B, C, G, and F.

- **Medium High Density Residential (MHDR):** SP 380A1 would allow for a total of 76 single-family dwelling units on 14.1 acres within PA 4 with an overall density of 5.4 du/ac. The minimum lot size within PA 4 would be 5,000 s.f. Access to PA 4 would be accommodated from Keller Road via proposed Street B.

- **High Density Residential (HDR):** SP 380A1 would allow for a total of 80 multi-family age-qualified dwelling units on 7.3 acres within PA 6 with an overall density of 11.0 du/ac. Access to PA 6 would be accommodated from Keller Road via proposed Streets B and C.

- **Community Development -Very Low Density Residential (CD-VLDR):** SP 380A1 proposes to designate 1.0 acre of the Project site for CD-VLDR within PA 12, although no dwelling units are allocated or proposed within PA 12 as part of SP 380A1. A portion of PA 12 will be vacated to adjacent landowners along Old Keller Road, a portion would be transferred to the Riverside County Flood Control and Water Conservation District

(RCFCWCD) for storm drain easement purposes, and a portion would serve as a landscaped slope maintained by Valley-Wide Recreation and Park District (VWRPD).

- **Commercial Retail (CR):** SP 380A1 would allow for up to 176,000 s.f. of commercial retail land uses on 13.3 acres within Planning Area 7. The commercial component would accommodate a wide range of businesses, including but not limited to, retail sales, supermarkets, pharmacies, and restaurants (including drive-through). Access to PA 7 would be available from Highway 79 (Winchester Road), Keller Road, and proposed Street B.

- **Open Space – Recreation (OS-R):** One recreation park site is proposed within PA 8 on a total of 6.4 acres and would accommodate both passive and active recreational uses. An additional 4.1 acres of OS-R land uses are proposed in PA 9, which would include a paseo and also would serve as a land use buffer from existing land uses to the west. Access to the PA 8 park site would be accommodated from Keller Road via proposed Streets B, C, D, E, F, and G, while access to PA 9 would be accommodated via Keller Road and internal roadways within PAs 1 and 3.

- **Open Space – Conservation Habitat (OS-CH):** SP 380A1 would preserve 61.4 acres of existing hillsides within PA 10 in the northern portion of the Project site for conservation purposes under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). No development is proposed within PA 10.

- **Open Space – Water (OS-W):** SP 380A1 would accommodate 4.3 acres and 6.9 acres of OS-W within PAs 11A and 11B, respectively. PAs 11B and 11B would consist of detention basins, which would capture, temporarily detain, and convey stormwater runoff. In addition, the basins would include storm water management capabilities to provide for the removal of water-borne pollutants from stormwater prior to discharge from the Project site.

- **Circulation:** SP 380A1 would accommodate the construction of 16.0 acres of major roadways on site, which include Right-of-Way (ROW) dedications for Old Keller Road, Keller Road, Winchester Road, Pourroy Road, and Internal Streets A, B, C, D, E, F, and G.

Proposed Circulation Plan

Proposed SP 380A1 includes a Roadway Master Plan. Proposed roadway cross-sections are depicted on 3-4A and 3-4B, *Proposed Roadway Cross-Sections*. As shown, access to the Project site would be afforded via Keller Road and Winchester Road/Highway 79. Access within the Project site would be accommodated via proposed Streets A, B, C, D, E, F, and G, as well as internal local roadways extending from these streets. Access to the commercial retail uses proposed within PA 7 could be accommodated via driveways along Winchester Road/Highway 79, Keller Road, and Street B. Additionally, in order to calm internal traffic, a roundabout is proposed at the intersection of Street B and Streets C and D. Provided below is a brief description of the SP 380A1 Roadway Master Plan facilities.

- **Winchester Road/Highway 79 – Modified Expressway (½-Width 92'-122' ROW, 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. 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 88 feet of paving including a 32-foot portion of the striped center median. Along the western edge of this portion of the roadway, a 34-foot landscaped parkway would be accommodated. 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 between 67 feet and 79 of paving including a 14-foot striped center median, and a landscaped parkway along the western edge of the roadway ranging in width from 25 feet to 37 feet, which would include an 8-foot-wide curb-separated sidewalk. As part of the Project, approximately 0.2-acre (up to 10 feet in width) of ROW would be dedicated to the County of Riverside and/or Caltrans.

- ***Keller Road – Secondary Highway (100'-112' ROW):*** Keller Road is classified by the General Plan and SWAP as a "Secondary Highway" with an ultimate ROW width of 100 feet. 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.

- ***Street "B" – Collector Road (74' ROW):*** "Street B" would consist of a public road that would be classified as a Collector Road, and would serve as the primary entry into the Project site. Street "B" would provide internal connectivity to the residential homes, public park, and the commercial area of the community. Street "B" would include a 74-foot-wide ROW, and would be improved to include 44 feet of paving (curb to curb) and a 15-foot-wide parkway along each side of the roadway that would include 5-foot-wide curb-separated sidewalks.

- **Streets "D" and "E" – Enhanced Local Street (66' ROW):** Streets "D" and "E" would consist of public roads that would be designated as Enhanced Local Streets. Streets "D" and "E" would be improved to provide a 66-foot ROW, which would include 44 feet of paving (curb-to-curb), with 11-footwide parkways along each side that would include a 5-foot-wide curb-separated sidewalk along the western/northern edges of the roadways and a 15-foot-wide sidewalk along the eastern/southern edges of the roadways.

- **Streets "G" and "F" and Street "C" (Between Streets "G" and "B") – Modified Local Street (66' ROW):** Streets "G" and "F" and the segment of Street "C" between Streets "G" and "B" would consist of public roads that would be designated as Modified Local Streets. These streets would be improved to provide a 59-foot ROW, which would include 40 feet of paving (curb-to-curb). An 11-foot-wide sidewalk would be accommodated along these streets along the side of the street that abuts the park in PA 8, while the side of these streets that abut residential uses in PAs 4, 5, and 6 would include an 8-foot-wide parkway with a five-foot-wide curb-adjacent sidewalk.

- **Street "A," Street "C" (west of Street "G"), and Internal Streets – Local Streets (56' ROW):** Street "A," Street "C" (west of Street "G"), and all other internal streets would consist of public Local Streets (56' wide) that would provide internal connectivity between the various land uses proposed on site. These Local Roads would include a total of 56 feet of right-of-way, 40 feet of paving (curb-to-curb), and 8-foot-wide parkways along each side of the road within which would be 5-foot-wide curb-adjacent sidewalks.

- ***Roundabout:*** A roundabout, designed to calm traffic before it enters the residential neighborhoods, is proposed at the intersection of Street "B" and Streets "C" and "D." The roundabout would include 42 feet of paving and a 34-foot-wide landscaped island. Parkways are proposed on either side of the roundabout, with one side including an 11-foot-wide sidewalk, and the other side including a sidewalk measuring between 14 to 18 feet in width. A traditional intersection may be utilized at this location in lieu of a roundabout.

- ***Pourroy Road:*** The portion of Pourroy Road that abuts the Project site is not classified as part of the General Plan or SWAP, and consists of a 16-foot-wide dirt road within the western half of the alignment. Approximately 24 feet of the western 30-foot half-width section of Pourroy Road would be paved as part of the Project, leaving the eastern 30-foot half-width section of the ROW as additional buffer between the Project site and the established large lot neighborhood to the west. No access to the Project site is proposed from Pourroy Road, although Pourroy Road would provide fire safety access for the established neighborhood to the west. No other improvements aside from the 24-foot-wide paved road portion are proposed.

- ***(Old) Keller Road – Modified Collector (60' ROW):*** Along the Project's southern boundary, approximately 28 feet of the existing right-of-way for (Old) Keller Road would be vacated, resulting in a total ROW of 60 feet along Old Keller Road. This roadway would be improved to include 34 feet of paving, an 8-foot-wide landscaped parkway along the northern edge of the roadway, and an existing 18-foot-wide graded swale along the southern edge of the roadway. A 15-foot-wide detention basin access road would be accommodated within the portion of the ROW to be abandoned as part of the Project.

Conceptual Pedestrian Circulation Plan

Proposed SP 380A1 includes a Conceptual Pedestrian Circulation Plan. Pedestrian circulation within the Project area would be accommodated by sidewalks ranging in size from 5 feet to 11 feet in width, a 10-foot-wide d.g. meandering trail along the northern edge of Keller Road, and an 8-foot-wide d.g. meandering trail within proposed PA 9 along the western Project boundary. The Conceptual Pedestrian Circulation Plan has been designed to connect each of the residential neighborhoods, including the Age-Qualified neighborhood in PA 6, to the park (PA 8), open space trails (PA 9), and commercial center (PA 7).

Drainage and Water Quality Improvements

The Project is located within the Santa Margarita Watershed in the County of Riverside. According to mapping information from the Riverside County Flood Control and Water Conservation District (RCFCWCD), the Project site is located within the Murrieta Creek/Warm Springs Valley Master Drainage Plan (MDP). Existing drainage water courses flow naturally from the northerly higher elevations to the southern and southeasterly portions of the Project site, which ultimately flow offsite toward and through several existing Caltrans reinforced concrete pipe (RCP) culvert-under-crossings along Winchester Road (Highway 79). Presently, there is no existing storm drain infrastructure on-site or within Pourroy Road or Keller Road rights-of-way. (K&A Engineering, Inc., 2021)

The Project has been designed to detain runoff generated on the Project site such that there would be no increase in developed storm flows as compared to existing drainage conditions. Runoff generated within the developed portions of the Project site would be collected via a series of on-site catch basins and storm drain lines ranging in size from 18 inches to 54 inches, which would convey flows into proposed detention basins in PAs 11A and 11B, which ultimately would discharge flows into their respective existing pre-developed water courses. Hillside storm flows from the open space in PA 10 would be intercepted and conveyed through a bypass storm drain line directly into the detention basins (low flow and storm water) proposed within PA 11A, adjacent to Winchester Road. The basin also would accommodate storm flows and runoff from the portion of PA 5 located north of Street "C" and runoff from the park proposed in PA 8. Flows from PA 6 would be detained by the proposed basin within PA 6. Outflows from PA 6 and the detention basin in PA 11A would be conveyed through 24-inch storm drain lines to three points of connection within the existing 24-inch Reinforced Concrete Pipes (RCPs) in Winchester Road.

The detention basin within PA 11B at the southern edge of the Project would detain and provide water quality treatment for the remaining portions of the Project's runoff. At the southwest corner of the Project site, flows from PA 9 would be conveyed south and easterly within a 4' x 8' reinforced box culvert (RBC) that transitions to a 5' x 8' RCB, which would then be conveyed south to the existing natural drainage channel. During low rainfall events, a storm drain would intercept the natural drainage course traversing the southern tip of PA 9 and convey these flows under Old Keller Road to bypass the PA 11B basin. Two options are proposed for the proposed bypass connection to the existing natural drainage channel. Flows from the natural drainage

channel (including flows from the storm drain intercept, natural drainage channel, and PA 11B) would then be conveyed to an existing 60-inch RCP within Winchester Road.

Drainage facilities proposed as part of the Project would be maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD) or VWRPD, as follows:

- The detention basin in PA 11A, the storm drain intercept conveying flows from PA 10, and the drainage facilities proposed in PA 6 would be maintained by the VWRPD. The VWRPD would conduct annual maintenance to remove sediment, debris, and litter from the pipes. As part of annual maintenance, VWRPD also would inspect hydraulic and structural facilities, and examine the outlet for clogging and structural integrity, as well as damage to any structural element. The VWRPD would repair facilities as needed.

- The detention basin in PA 11B would be subject to annual maintenance by the RCFCWCD to remove sediment, debris, and litter from the pipe. As part of annual maintenance, RCFCWCD also would inspect hydraulic and structural facilities, and examine the outlet for clogging and structural integrity, as well as damage to any structural element. The RCFCWCD would repair facilities as needed.
- The debris inlet basin (including inlet and outlet structures) proposed in the southern portion of PA 9 would be subject to maintenance by the RCFCWCD every five years, or sooner and whenever substantial sediment accumulation has occurred. Maintenance activities would include the removal of debris and litter from the entire basin; an inspection of the hydraulic and structural facilities; an examination of the outlet for clogging, the embankment and spillway integrity, as well as damage to any structural embankment. RCFCWCD also would check for erosion, slumping, and overgrowth, and would remove accumulated sediment and debris from the forebay and ensure that the notch weir is clear, allowing for proper drainage. The RCFCWCD also would check inlet structures for sediment buildup. The RCFCWCD would repair facilities as needed.
- The drainage bypass of existing flows near the southern portion of PA 9 also would be maintained by RCFCWCD. RCFCWCD would maintain the 4' x 8' RBC that transitions to a 5' x 8' RCB, as well as all inlet and outlet structures, on an annual basis. Maintenance activities would include the removal of sediment, debris, and litter from the pipe; an inspection of hydraulic and structural facilities; and an examination of the outlet for clogging, structural integrity, and damage to any structural element. The RCFCWCD would repair facilities as needed.

Fuel Modification Plan

SP 380A1 includes a Fuel Modification Plan (FMP) that would protect the proposed residential units and other structures from fire hazards, while at the same time creating a smooth visual transition from the natural vegetation that may be located to the homeowner's front, side, and/or rear landscapes. Fuel modification zones are proposed within all residential PAs, as well as in areas that abut residential and commercial development areas and within the detention basins within PAs 11A and 11B. Fuel modification area planting would be in accordance with the Riverside County Fire Department standards and requirements, and would utilize appropriate plant materials and irrigation treatments. Lots that are within PAs adjacent to open space would

be developed in accordance with the Project's 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. The required FMZs would consist of the following:

Urban-Wildland Interface: In order to adequately protect structures adjacent to open space areas and the MSHCP-dedicated hillsides, SP 380A1 would require sufficient "defensible space" between the dwelling units and the fuel associated with the open land. A total of one-hundred (100) feet of fuel modification treatment shall be required on all lots abutting native vegetation. 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 consisting of, but not limited to, non-combustible fire deflection walls, increased width of required irrigated landscaping, or additional ignition resistant construction requirements greater than the required building codes.

Fuel Modification Zone 1A: Fuel Modification Zone 1A would be homeowner maintained 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 as 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 a wildfire and also would provide a generally open area in which fire suppression forces can operate during wildfire events. This zone would include a level or level-graded area around the structure and minimum 10-foot setbacks between buildings and trees. Landscaping in this zone shall be in accordance with EIR Table IV-1 (Community Plant Palette) and EIR Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 1B**: Fuel Modification Zone 1B would be maintained by the Valley-Wide Recreation and Park District and would consist of 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, 3, 5, and 6, 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 and maintained by the Valley-Wide Recreation and Park District year-round. Landscaping in this zone would be in accordance with EIR Table IV-1 (Community Plant Palette) and EIR Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 2**: Fuel Modification Zone 2 would be maintained by the Valley-Wide Recreation and Park District and would consist of thinning treatment to ensure that areas in this zone contain 50% open space and are free of any dead and dying combustible vegetation. Zone 2 generally would begin at the outer edge of Zone 1A and

Zone 1B landscaping and includes Planning Areas 1, 3, 5, 6, and 11A. This zone would consist of a non-irrigated area and must be maintained yearly prior to fire season to clear out any dead, dying, and invasive material. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) and EIR Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Roadside Fuel Treatment**: Roadside fuel treatment would be managed by the Valley-Wide Recreation and Park District and would include all public roads, which shall have a minimum of 20 feet of combustible vegetation clearance on each side of the roadway. Temporary roadside fuel treatment maintenance would be applied to public roads until adjoining properties are developed. Sidewalks and related non-combustible improvements are encouraged in fuel treatment areas to enhance the level of protection. Landscaping for roadside fuel treatment shall be in accordance with EIR Table IV-1 (Community Plant Palette) and EIR Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

Additional building features would be required for a few homes within residential Planning Areas 3 and 5 where the minimum 100-foot fuel treatment setback cannot be achieved. For any home or building that has reduced fuel modification distances, 6-foot solid non-combustible walls would be required to limit any actual radiant fire that may start in the conservation habitat area. Homes on these lots would be required to be single-story, any swinging exterior doors would be required to be self-closing, and copper piping in attics would be required. Fire sprinklers would be required to extend outside under the eaves and interior fire sprinklers would be required in attics and garages. Landscaping in this zone shall be in accordance with EIR Table IV-1 (Community Plant Palette) and EIR Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

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 On Site 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 Off Site are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP and Southwest Area Plan Subunit 4 – Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch of the MSHCP.

Specifically, the On Site Project falls within all or portions of Criteria Cells 5067, 5070, 5074, 5169, 5173, 5175, and 5275 as well as Cell Group U. The Off Site Project is also partially or wholly located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5170, 5173, 5174, 5175, 5275, 5278, 5279, and 5969. The Off Site Project is also within Cell Groups S, U, and V [Exhibit 5A – MSHCP Map]. Portions of the Study Area 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 5B – MSHCP Survey Areas Map].

Subunit 4, Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch

The target acreage range for Additional Reserve Lands within Subunit 4 is 4,395 to 7,970 acres of land. The cell groups within this subunit include Cell Groups A, E, F, G, H, I, K, L, M, N, O, P, Q, R, S and T.

Criteria Cells not in a Cell Group in Subunit 4 include: 5078, 5177, 5685, 5686, 5738, 5740, 5741, 5839, 5840, 5841, 5842, 5886, 5893, 5894, 5984, 5992, 6088 and 6154.

Planning species for this subunit include:

- Bell's sage sparrow;
- Burrowing owl;
- Cactus wren;
- Coastal California gnatcatcher;
- Golden eagle (nest site);
- Grasshopper sparrow;
- Least Bell's vireo;
- Mountain plover;
- Northern harrier;
- Southern California rufous-crowned sparrow;
- Tree swallow;
- Turkey vulture;
- White-tailed kite;
- Quino checkerspot butterfly;
- Bobcat;
- Los Angeles pocket mouse;
- Mountain lion;
- Stephens' kangaroo rat; and
- Western pond turtle.

Biological issues and considerations for this subunit include:

- Conserve upland Habitat around the Southwestern Riverside County Multi-Species Reserve to augment existing Conservation within the Southwestern Riverside County Multi-Species Reserve, primarily to the north, south and west, and provide connectivity to proposed Constrained Linkages in French Valley.
- Conserve upland Habitat east of the Southwestern Riverside County Multi-Species Reserve to provide connectivity between the Southwestern Riverside County Multi-Species Reserve and existing conserved lands in the San Bernardino National Forest, proposed Vail Lake Core Area and contributing to the proposed Linkage in Subunit 5 of the San Jacinto Valley Area Plan. Conservation shall incorporate both Live-In Habitat and wildlife movement.
- Conserve key populations of Quino checkerspot butterfly.
- Conserve key populations of coastal California gnatcatcher.

- Conserve golden eagle nest site in Rawson Canyon upstream from Lake Skinner.
- Maintain least Bell's vireo in Rawson Canyon and east of Lake Skinner.
- Maintain grassland Habitat for mountain plover.
- Maintain turkey vulture nest in Rawson Canyon east/north of Lake Skinner.
- Maintain Core Area for bobcat.
- Maintain Core Area for mountain lion.
- Maintain Core and Linkage Habitat for Stephens' kangaroo rat.
- Determine presence of potential Core and Linkage Habitat for Los Angeles pocket mouse along Tucalota Creek east of Lake Skinner.
- Maintain Core and Linkage Habitat for Quino checkerspot butterfly.
- Maintain Core and Linkage Habitat for western pond turtle.

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.

On Site Project

Cell Group U, Criteria Cell 5067

Approximately 0.16 acre of the On Site 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 from65%-75% of the Cell Group focusing on the eastern portion of the Cell Group.

Cell Group U, Criteria Cell 5070

Approximately 0.79 acre of the On Site 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 from65%-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 On Site 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 33.50 acres of the On Site 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 159.15 acres of the On Site 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 1.62 acres of the On Site 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 0.80 acre of the On Site 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.

Off Site Project

Criteria Cell 5169

Approximately 10.93 acres of the Off Site 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 5170

Approximately 0.11 acre of the Off Site Project is within Criteria Cell 5170. Conservation within this Cell Group will contribute to assembly of Proposed Extension of Existing Core 7, Proposed Constrained Linkage 17 and Proposed Constrained Linkage 18. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, riparian scrub, woodland and forest habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell #5372 to the west, to chaparral habitat proposed for conservation in Cell Group U also to the west, to coastal sage scrub and grassland habitat proposed for conservation in Cell #5169 also to the west and in Cell Group to the south, to coastal sage scrub habitat proposed for conservation in Cell Group R to the east and to chaparral and coastal sage scrub habitat proposed for conservation in Cell #5177 also 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 5173

Approximately 2.01 acres of the Off Site 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 2.99 acres of the Off Site Project is within Criteria Cell 5173. Conservation within Criteria Cell 5174. Conservation w 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 6.82 acres of the Off Site 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 10.99 acres of the Off Site 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.

Cell Group S, Criteria Cell 5278

Approximately 0.59 acre of the Off Site Project is within Criteria Cell 5278. Conservation within this Cell Group will contribute to assembly of Proposed Extension of Existing Core 7, Proposed Constrained Linkage 17 and Proposed Constrained Linkage 18. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, grassland, riparian scrub, woodland and forest habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell #5372 to the west, to chaparral habitat proposed for conservation in Cell Group U also to the west, to coastal sage scrub and grassland habitat proposed for conservation in Cell #5169 also to the west and in Cell Group to the south, to coastal sage scrub habitat proposed for conservation in Cell Group R to the east and to chaparral and coastal sage scrub habitat proposed for conservation in Cell #5177 also 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 5279

Approximately 2.66 acres of the Off Site 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.

Cell Group V, Criteria Cell 5969

Approximately 1.14 acres of the Off Site Project is within Criteria Cell 5969. Conservation within this Cell Group will contribute to assembly of Proposed Core 2. Conservation within this Cell Group will focus on grassland and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to grassland habitat proposed for conservation in Cell #5979 to the east and to coastal sage scrub, grassland and chaparral habitat and agricultural land proposed for conservation in Cell Group W to the south. Conservation within this Cell Group will range from 45%-55% of the Cell Group focusing on the eastern portion of the Cell Group.

Plant Survey Areas

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*). 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 grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). According to the Joint Project Review (JPR) completed for the On Site Project (JPR 09-12-14-01], the On Site Project is not located within the MSHCP Invertebrate, Mammalian, or Amphibian Survey Areas, but is located within Proposed Constrained Linkage 17.

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

The project development footprint, minus its off-site improvements, was previously determined to be consistent with the MSHCP as part of JPR 09-12-14-01, dated February 25, 2010. This JRP required the conservation of 61.10[6] acres of land within the northern portion of the On Site Project. A HANS determination letter, HANS 1995, was also approved for the Project. This letter determined that the RCA concurred with the partial site conservation documented in the JPR. It is expected that amendments to the HANS and JPR may be needed to cover off-site improvements, or a new JPR and/or HANS will be required for the Off Site Project. It should be noted that Winchester Road, Keller Road, and Washington Street are considered as "covered

[6] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

roads" under the MSCHP, which means that a HANS is not necessary for the off site road improvements for each of these roads as their impact was already contemplated in the MSHCP, but a JPR would be required. Additionally, any utility improvements would be considered as covered activities pursuant to Section 7.3.9 of the MSHCP.

Pourroy Road is not considered as a covered road under the MSHCP; therefore, improvements to Pourroy Road would need to undergo the HANS and JPR processes; however, improvements to Pourroy Road are limited to utility line installation and/or improvement, which are covered activities under the MSHCP. A copy of the JPR approval letter for the On Site Project is attached as Exhibit 11.

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then "biologically equivalent or superior preservation" must be provided.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, 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 focus surveys for rare plants; and
- Performance of focus 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), CNPS 8th edition online inventory (CNPS 2021), Natural Resource Conservation Service soil data (NRCS 2021), Information for Planning and Consultation (IPAC) database (USFWS 2021), 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 On and Off Site Project

Survey Type	2021 Survey Dates	Biologist(s)
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	AN, CW, DS
Rare Plant Surveys and Habitat Assessment	3/16, 5/5	AN, JS, VP, DS
Vegetation Mapping	9/14, 10/27	DS, JV
General Biological Survey	3/16	AN
Evaluation of Riparian/Riverine Areas	2/3, 7/14	LLG
Evaluation of Vernal and/or Seasonal Pools	2/3	LLG
Delineation of Federal and State Jurisdictional Waters	2/3, 7/14	LLG

AN = April Nakagawa, CW = Christopher Waterston, JS = Jillian Stephens, LLG = Lesley Lokovic-Gamber, VP = Velvet Park, DS = David Smith, JV = Joseph Vu

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 On and Off Site 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, 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. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2021); and
- CNDDB for the USGS 7.5' quadrangle(s): Winchester and surrounding quadrangles (CDFW 2021).
- USFWS IPAC database (USFWS 2021).

2.1.2 Vegetation Mapping

Vegetation communities within the On and Off Site Project were mapped according to Holland (1986) when possible. The majority of the On and Off Site Project does not meet the parameters of any natural vegetation classification system. Plant communities were mapped in the field directly onto a 350-scale (1"=350') aerial photograph. Vegetation mapping was conducted by GLA biologists Joseph Vu and David Smith on September 14, 2021, and October 27, 2021.

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 On and Off Site Project. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2021) and the MSHCP (Dudek 2003).
The On Site 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 Off Site are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP and Southwest Area Plan Subunit 4 – Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch of the MSHCP.

Specifically, the On Site Project falls within or portions of Criteria Cells 5169 and 5173 as well as Cell Group U. The Off Site Project is also partially or wholly located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5170, 5173, 5174, 5175, 5275, 5278, 5279, and 5969. The Off Site Study Area is also within Cell Groups S, U, and V [Exhibit 5A – MSHCP 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 5B – 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 stenocarpa*). 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 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. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). 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 adopted by CNPS (2010) and CDFW by Nelson (1984). 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 On and Off Site 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 On and Off Site 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 7th Edition Check-list of North American Birds (2019) 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 On and Off Site 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 On and Off Site 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 On and Off Site 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 On and Off Site 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 On and Off Site Project Study Area, (2) species survey areas as identified by the MSHCP for the On and Off Site Project Study Area; and 3) any other special-status animals that are known to occur within the vicinity of the On and Off Site Project Study Area, or for which potentially suitable habitat occurs on the On and Off Site Project Study Area.

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 On and Off Site Project Study Area.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

Portions of the On and Off Site Project are located within the MSHCP Survey Area for the burrowing owl. GLA biologists April Nakagawa, David Smith, and Christopher Waterston conducted focused surveys for the burrowing owl for all suitable habitat areas within the On and Off Site Project Study Area. 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. The focused burrow survey was conducted on March 30, 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, 2021 for the three survey polygons. 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. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 6 identifies the Burrowing Owl Survey Areas at the On and Off Site 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 off-site improvements occurred on private lands south of Nuevo Road and access was not feasible, therefore the biologist scanned the area with binoculars. Table 2-2 summarizes 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 Burrowing Owl Surveys

Survey Date	Biologist(s)	Polygon #	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/30/2021	AN	A	0600/0900	44/57	1/2	0
4/16/2021	AN	B	0600/0830	48/56	0/1	0
4/20/2021	AN	Off-Site	0600/0830	55/60	2/4	0
4/22/2021	AN	A	0600/0830	51/54	6/5	100/100
4/29/2021	AN/CW	B and Off-Site	0630/0830	53/56	1/2	0
5/11/2021	AN/CW	A and B	0615/0815	54/60	2-2	100/90
5/14/2021	AN	B	0615/0820	54/54	4-1	100/100

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

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

2.3 Jurisdictional Waters

The On and Off Site Project was delineated 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[7] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[8]. 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.[9] 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[10] 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.[11] 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.

[7] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[8] 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.

[9] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

[10] 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).

[11] 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.

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

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

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

The MSHCP defines vernal pools as *seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indictors of hydrology and/or vegetation during the drier portion of the growing season.*

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters, or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

GLA surveyed the On and Off Site 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.

- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts to State-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. 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; animals 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 5.2.2 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 on Lists 1A, 1B, or 2 of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants CNPS Ranked 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 (SFP) 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
- SFP State Fully Protected
- SP State Protected
- SSC State Species of Special Concern

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Eighth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that 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.
.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 CWA, 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) All waters which are 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;*

(2) All interstate waters including interstate wetlands;
(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:
(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or
(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...
(4) All impoundments of waters otherwise defined as waters of the United States under the definition;
(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
(6) The territorial seas;
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.
(8) Waters of the United States do not include prior converted cropland.[12] 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 the EPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

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(e) 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.*

1. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the

[12] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season…." [Emphasis added.]

interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the CWA.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the CWA (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

2. Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the CWA in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For project sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the Corps must apply the significant nexus standard.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

3. 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(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and 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 typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[13][14]);

- 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 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[15] and waters of the State. Waters of the United States are defined above and waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

[13] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[14] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

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

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;*[16] *and*
3. *Artificial wetlands*[17] *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

[16] "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.
[17] Artificial wetlands are wetlands that result from human activity.

xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[18]

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

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1617 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

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

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 On and Off Site Project has been developed for agricultural uses resulting in extensive ground disturbances. The On and Off Site Project has mainly been utilized for agriculture and maintained by regular mowing and disking. The topography within the Project slopes downward from the north to south from 1,587 feet to 1,422 feet above mean sea level (amsl).

The On and Off Site Project Study Area consists of regularly maintained undeveloped land, much of which is comprised of previously graded and highly compacted soils. The Project is relatively flat and occurs at an elevation ranging from approximately 1,587 to 1,422 feet above mean sea level. Due to the decades of agriculture practices and disturbances throughout the On and Off Site Project Study Area, hydrology has been modified as a result. However, the topography conveys storm flows in a general west to east direction, depending on rainfall amounts, through the site towards Warm Springs Creek and eventually to Murrieta Creek.

The Project contains ephemeral earthen drainages with sporadic riparian vegetation. No wetlands were identified within the On and Off Site Project Study Area. Refer to Section 4.9 and 4.10 for additional details.

4.2 Vegetation/Land Use Mapping

The On and Off Site Project Study Area 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 10.

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

Vegetation/Land Use Type	On Site Project (Acres)	Off Site Project (Acres)	Total Project (Acres)
Agriculture	175.23	0	175.23
Developed	1.44	16.24	17.68
Disturbed	10.60	25.66	36.26
Disturbed Buckwheat Scrub	8.64	0.47	9.11
Ornamental	0.08	1.99	2.07
Disturbed Mulefat Scrub	0.05	0	0.05
Total	**196.04 [Rounded]**	**44.36 [Rounded]**	**240.40 [Rounded]**

4.2.1 Agriculture

The Project site supports 175.23 acres of active agriculture in the on-site portion of the Project. Agriculture practices have been noted on the Project site historically.

4.2.2 Developed

Approximately 17.68 acres of developed areas occur within the on and off site portions of the Project in the form of unpaved access roads, paved vehicular roads, and developed infrastructure such as buildings. A total of 1.44 acres are on site and 16.24 acres are off site. These areas are routinely maintained and are primarily unvegetated. No developed areas are present on site.

4.2.3 Disturbed

Approximately 36.26 acres of disturbed areas occur within the Project. A total of 10.60 acres occurs on site and 25.66 acres occur off site. The northeastern portion of the onsite Project was burned in a recent brushfire and is currently unvegetated and contains only the charred remains of vegetation.

4.2.4 Disturbed Buckwheat Scrub

Approximately 9.11 acres of disturbed buckwheat scrub 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 on site and a total of 0.47 acre is off site. 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 with California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), ripgut brome (*Bromus diandrus*), and red brome (*Bromus madritensis ssp. rubens*).

4.2.5 Disturbed Mulefat Scrub

The Project supports 0.05 acres of disturbed mulefat scrub. All 0.05 acre of disturbed mulefat scrub is on site. This area is primarily dominated with riparian species including arroyo willow (*Salix lasiolepis*) and mulefat (*Baccharis salicifolia*), with an understory of non-native grasses. Non-native species such as summer mustard (*Hirschfeldia incana*), foxtail barley (*foxtail barley*), and annual brome grasses are also dominant along the banks of the drainage.

4.2.6 Ornamental

The Project contains 2.07 acres of ornamental plantings within the on and off site portions of the Project. Theon site portion totals 0.08 acre and the off site portion totals 1.99 acres and is along and near the intersection of La Alba Drive and Winchester Road. Ornamental plantings predominantly consist of non-native horticultural plants and trees, including introduced trees, shrubs, and annual plants. Ornamental plantings area associated with residential land use adjacent to proposed off-site improvements.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following seven 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 a special-status vegetation community.

4.4 Special-Status Plants

As noted in Section 1.5.2, portions of the Project occur within a MSHCP NEPSSA designated Survey Area as well as CAPSSA designated Survey Area; therefore, pursuant to the MSHCP, the those target species were evaluated.

The following special-status plant was detected at the Project: 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.	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.
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.

Species Name	Status	Habitat Requirements	Occurrence
Catalina mariposa lily *Calochortus catalinae*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland.	Confirmed absent during focused plant surveys.
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).	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.	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).	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.	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	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.	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.	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	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.	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.	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).	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.	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.
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.

Species Name	Status	Habitat Requirements	Occurrence
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.	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 does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.

- Potential to occur – The species has a potential to occur based on suitable habitat, however its presence/absence has not been confirmed.
- 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 On Site 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.

4.5 Special-Status Animals

The following special-status animals were detected at the On and/or Off Site Project: California horned lark (*Eremophila alpestris actia*, CDFW-WL) and northern harrier (*Circus cyaneus*, CDFW-SSC*)*. Table 4-3 provides a list of special-status animals evaluated for the On and Off Site 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 On and Off Site Project, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the On and Off Site 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 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.	Does not occur on the Project due to a lack of suitable habitat.
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines and are known to disperse through disturbed habitats to reach suitable nectar plants.	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.	Moderate 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.	Low 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.	Low 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.	Moderate 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: BGEPA State: SE, CFP 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: BCC State: WL MSHCP	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains.	Moderate potential to occur on the Project for nesting and foraging due to

Species Name	Status	Habitat Requirements	Occurrence
			presence of suitable habitat.
Bendire's thrasher *Toxostroma bendirei*	Federal: BCC 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: 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.	Confirmed absent through focused surveys.
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.	Confirmed present onsite during biological surveys.
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: BCC 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: BGEPA State: CFP MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low 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.	Low potential to occur on the Project for nesting and foraging due to presence of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
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.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: WL MSHCP	Grass covered hillsides, coastal sage scrub, and chaparral.	Moderate 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: SCE, 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: CFP MSHCP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Moderate potential to occur on the Project for nesting and foraging due to presence of suitable habitat.
Yellow warbler (nesting) *Setophaga petechia*	Federal: BCC 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.	Does not occur on the Project due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
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.
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
	CFP – California Fully-Protected Species
	SSC – Species of Special Concern

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

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.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed 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 (MacWhirter and Bildstein, 1996). 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 On Site Project in 2021. It is unknown if the same individual was observed on each occasion. This species is expected to forage on-site and is not expected to nest within the On Site Project due to the lack of suitable nesting habitat. A total of 222.72 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. 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 seven separate visits to the On Site Project in 2021. It is unknown if the same individual was observed on each occasion. This species is expected to forage and nest within the On Site Project. A total of 213.61 acres of foraging habitat for the horned lark 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 (Klauber, 1939; Stebbins, 1954). 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 222.72 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 222.72 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 222.72 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 222.72 acres of habitat for the coast horned lizard 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. 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 45.37 acres of habitat for the sage sparrow is present.

Golden Eagle

The golden eagle is designated by CDFW as SFP 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 211.49 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 222.72 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. 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 222.72 acres of foraging habitat for the rufous-crowned sparrow is present.

White-Tailed Kite

The white-tailed kite does not have a federal or state designation, however this species is considered locally rare when nesting and is a CFP species 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 222.72 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 focused breeding season surveys. No burrowing owls were observed within the Project, and no burrowing owl sign was detected in association with burrows.

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.[19]

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*).

4.8 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication 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 61.10 acres of land within the northern half of the On Site 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.[20] According to the Project's JPR, the following is stated:

[19] 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.

[20] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

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 Perimeter to Area Ratio ratio. Thus, Edge Effects on this Constrained Linkage may be substantially lower than for other Constrained Linkages.

The JPR also has concluded the following:

- *Approximately 156.38 acres of the approximately 195-acre site is located within Cell 5173. 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 on the northern portion of the Cell.*

- *Approximately 36 acres of the 195-acre site is located in Cell 5169. 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 on the northern portion of the Cell.*

- *Approximately 1 acre of the site is located in Cell 5175. 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 on the northern portion of the Cell.*

- *Approximately 1 acre of the site is located in 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 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 on the eastern portion of the Cell Group.*

- *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 (0.1 acre) of 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 acres, the project does contribute to Reserve Assembly requirements.*

The Off Site 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.

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 On and Off Site Project, referred to herein as Drainages A, A-1, B, C, D, E, F, G, H, and I.

These features extend across the On and Off Site 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 1,407 linear feet within the Study Area. No wetlands are associated with this feature.

Drainage A enters the southwestern corner of the Study Area via road runoff and nuisance flows from the surrounding areas. Drainage A meanders in a general easterly/southeasterly direction for a collective 884 linear feet onsite and 523 linear feet offsite, before exiting the Study Area 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 arroyo willow (*Salix lasiolepis*), 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 offsite portion of the Project area in a southerly direction for approximately 331 linear feet [24 feet on site and 307 feet off site] before leaving the Study Area 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 Study Area in a general southwesterly direction for approximately 1,544 linear feet (1,528 linear feet on site and 16 feet off site) 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 on site as sheet flow towards a roadside pipe culvert at the southern Project boundary. This feature originates on site 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 on site as sheet flow towards a roadside pipe culvert at the southern project boundary. This feature originates on site 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 2,723 linear feet before dissipating on site as sheet flow towards a culvert along the eastern project boundary. This feature originates on site 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 891 linear feet before dissipating on site as sheet flow. This feature originates on site 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 on site and 32 feet off site) 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 (Eriogonum ssp.) 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 molle*) 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 On and Off Site Project does not contain waters of the U.S.; therefore, no Corps jurisdiction is associated with the On and Off Site Project.

On April 21, 2020, the EPA and the Corps (collectively, the "agencies") published the *Navigable Waters Protection Rule*[21] (NWPR) The NWPR became effective in 49 states and all U.S. territories on June 22, 2020. Pursuant to the NWPR, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an OHWM. Tributaries must satisfy the flow conditions of the definition described in 33 U.S.C. 1251 et seq. and its implementing regulations (33 CFR Part 328.3).

The On and Off Site Project supports several ephemeral drainage features (Drainages A – I) that flow only in direct response to precipitation (e.g., rain). Pursuant to the NWPR, ephemeral

[21] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA. Therefore, on April 6, 2021, the Corps issued an AJD for the Project in concurrence with the NWPR.

The AJD is valid for a period of five years[22]. A summary of current Corps regulations is provided in Section 3.3.1 above[23].

4.10.2 Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction associated with Project totals 0.64 acre of waters the State, none of which consists of State wetlands On site acreage totals are 0.53 acre and off site totals are 0.11 acre. A total of 11,051 linear feet of ephemeral stream is present consisting of 9,957 feet on site and 1,094 feet off site.

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 and is provided as Appendix A[24]. 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 On and Off Site Project. Drainage descriptions are provided above. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9A].

[22] On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the NWPR in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, the agencies have halted implementation of the NWPR and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. Any AJDs issued prior to the effective date of the court decision remain valid for a period of five years regardless of current regulations.
[23] Please note, the AJD issued for the Project was issued under the NWPR and precludes current Corps regulations.
[24] On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the NWPR in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, the agencies have halted implementation of the NWPR and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice. Any AJDs issued prior to the effective date of the court decision remain valid for a period of five years regardless of current regulations.

Table 4-4: Summary of Regional Board Jurisdiction – Waters of the State

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	0.12	0.00	0.12	1,407
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
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	2,723
Drainage F	0.03	0.00	0.03	891
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*	**0.64 [Rounded]**	**0.00**	**0.64 [Rounded]**	**11,051**

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

4.10.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Study Area totals 0.75 acre, of which 0.06 acre consists of riparian stream and 0.69 acre consists of non-riparian stream. A total of 10,386 linear feet of ephemeral stream is present. This includes 151 linear feet of riparian stream and 10,900 linear feet of non-riparian stream and includes all areas within Regional Board jurisdiction. A total of 11,051 linear feet of ephemeral stream is present consisting of 9,957 feet on site and 1,094 feet off site.

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 CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Drainage A	0.15	0.06	0.21	1,407
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
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	2,723
Drainage F	0.03	0.00	0.03	891
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	**0.69**	**0.06**	**0.75**	**11,051**

*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 On and Off Site Project totals 0.75 acre, of which 0.06 acre consists of riparian stream and 0.69 acre consists of riverine stream. A total of 11,051 linear feet of ephemeral stream is present. This includes 151 linear feet of riparian stream and 10,900 linear feet of non-riparian riverine stream and includes all areas within CDFW jurisdiction.

MSHCP jurisdiction at the On and Off Site 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 On and Off Site 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 MSHCP Jurisdiction

Drainage Name	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)	Total MSHCP Jurisdiction (acres)	Length (linear feet)
Drainage A	0.15	0.06	0.21	1,407
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
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	2,723
Drainage F	0.03	0.00	0.03	891
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	**0.69**	**0.06**	**0.75**	**11,051**

*Sum of individual parts may not equal 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 On and Off Site Project is heavily disturbed and the onsite population is relatively small. Therefore, given the low sensitivity of this species (CNPS 4.2), the proposed On and Off Site 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 On and Off Site Project will result in the loss of habitat that has the potential to support special-status species, including the following: 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, white-tailed kite, California horned lark and northern harrier. Impacts to these species may be significant under CEQA, however each of these species are covered under the MSHCP conservation goals and therefore, On and Off Site Project impacts to suitable nesting habitat are addressed through consistency with, and participation in, the MSHCP, as outlined below in Section 6.0, Recommended Avoidance Measures. With implementation and coverage of the Project under the MSHCP conservation goals, the On and Off Site 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 On and Off Site Project will permanently impact 0.05 acre of Disturbed Mulefat Scrub. 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) during construction [Exhibit 12]. 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 On and Off Site 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	Onsite Impacts (acres)	Offsite Impacts (acres)	Total Impacts (acres)	Avoided Areas (acres)
Agriculture	127.44	0	127.44	47.79
Developed	1.44	16.24	17.68	0
Disturbed	2.80	25.66	28.46	7.80
Disturbed Buckwheat Scrub	2.81	0.47	3.28	5.83
Ornamental	0.08	1.99	2.07	0
Disturbed Mulefat Scrub	0.05	0	0.05	0
Total	**134.62**	**44.36**	**178.98**	**61.42**

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 On and Off Site 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 On and Off Site 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 61.10 acres of land within the northern half of the On Site Project to assist with the assembly of Proposed Constrained Linkage 17.[25] This land dedication is consistent with MSHCP requirements and has been approved by the RCA through the JPR and HANS processes.

According to the Project's JPR, the following is stated:

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

[25] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

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 Perimeter to Area Ratio ratio. Thus, Edge Effects on this Constrained Linkage may be substantially lower than for other Constrained Linkages.

The JPR also has concluded the following:

- *Approximately 156.38 acres of the approximately 195-acre site is located within Cell 5173. 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 on the northern portion of the Cell.*

- *Approximately 36 acres of the 195-acre site is located in Cell 5169. 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 on the northern portion of the Cell.*

- *Approximately 1 acre of the site is located in Cell 5175. 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 on the northern portion of the Cell.*

- *Approximately 1 acre of the site is located in 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 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 on the eastern portion of the Cell Group.

- *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 (0.1 acre) of 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 acres, the project does contribute to Reserve Assembly requirements.*

The Off Site 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." As discussed throughout this report, the Off Site 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.

The On and Off Site 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 On and Off Site 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 Off Site Project. Therefore, the proposed On and Off Site Project will not impact Corps jurisdiction.

5.8.2 Impacts to Regional Board Jurisdiction

Under the proposed On and Off Site Project, a total of 0.38 acre of State waters under Regional Board jurisdiction would be permanently impacted (all non-wetland waters) [Exhibit 13A – Regional Board Jurisdiction Impact Map]. A total of 6,014 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.

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.

Table 5-2. Summary of 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	0.08	0	0.08	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
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	**0.38 (rounded)**	**0**	**0.38 (rounded)**	**6,014**

5.8.3 Impacts to CDFW Jurisdiction

Under the proposed On and Off Site Project, a total of 0.48 acre of CDFW jurisdiction would be permanently impacted (0.42 acre non-riparian streambed and 0.06 acre riparian streambed) [Exhibit 13B – CDFW Jurisdiction Impact Map]. 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 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	0.10	0.06	0.16	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
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	**0.42 (rounded)**	**0.06**	**0.48 (rounded)**	**6,014**

5.8.4 Impacts to MSHCP Riparian/Riverine Areas

Under the proposed On and Off Site Project, a total of 0.48 acre of MSHCP jurisdiction would be permanently impacted (0.42 acre non-riparian streambed and 0.06 acre riparian streambed) [Exhibit 13C – MSHCP Riparian/Riverine Areas Impact Map]. Table 5-4 below summarizes the

impacts to each CDFW jurisdictional feature. Refer to Section 6.0, Recommended Avoidance Measures for measures to offset these impacts.

Table 5-4. Summary of MSHCP Jurisdictional Impacts

Drainage Name	MSHCP Impacts Non-Riparian Stream (Acres)	MSHCP Impacts Riparian Stream (Acres)	Total MSHCP Impacts (Acres)	Total MSHCP Impacts (Linear Feet)
Drainage A	0.10	0.06	0.16	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
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	**0.42 (rounded)**	**0.06**	**0.48 (rounded)**	**6,014**

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 0.48 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 On and Off Site Project is not expected to result in significant indirect impacts to special-status biological resources, with the implementation of measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP). These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measure consistent with the MSHCP guidelines to address the following:

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

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 on site 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. 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

A majority of the Project would be developed with residential, recreational, and open space land uses, which would not have the potential for exposing on- or off-site conservation areas to noise levels exceeding 65 dBA CNEL. The only component of the Project with the potential for resulting in operational noise impacts is the proposed commercial retail land use. However, the commercial land uses would be shielded from proposed conservation areas by residential development proposed within Planning Areas 5 and 6 of SP 380A1, and thus would not have the potential to expose the conservation areas to noise levels exceeding 65 dBA CNEL.

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 on site would be subject to compliance with the proposed Keller Crossing Specific Plan (SP 380A1). Chapter 4 of proposed SP 380A1 addresses prohibited plants and includes a listing of prohibited plant species within Table 4-3, *Prohibited Plant Species*. Table 4-3 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 on site 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, which requires the installation of tubular steel fencing or steel rod fencing along all proposed open space areas on site, including areas proposed to be added to the MSHCP Conservation Area. 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. As such, the Project would not conflict with the MSHCP requirements related to barriers, and impacts would be less than significant.

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 On and Off Site Project, the On and Off Site 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 On and Off Site 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 On and Off Site 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 On and Off Site 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 On and Off Site Project will impact a total of 0.38 acre of Regional Board Waters of the State and 0.48 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 jurisdictional waters shall be mitigated at a minimum 3:1 ratio, subject to approval of the Regional Board and CDFW, and include the following:

- The purchase of 0.76 acre of re-establishment credits at the San Luis Rey Mitigation Bank (for Regional Board impacts only);

- The purchase of 0.48 acre of preservation credits from the Barry Jones Mitigation Bank (for both Regional Board and CDFW impacts);

- The purchase of 0.48 acre of rehabilitation credits at the Riverpark Mitigation Bank (for CDFW impacts only); and

- The purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank (for CDFW impacts only).

6.4 MSHCP Riparian/Riverine Impacts

As noted above, the Project will impact 0.48 acre of MSHCP riparian/riverine resources within the Project (0.42 acre riverine and 0.06 acre riparian). The following measures will address these impacts. The proposed impacts to riverine resources by the Project triggers the requirement under the MSHCP that a DBESP be prepared and approved by the RCA and Wildlife Agencies. The DBESP will detail the type of resource proposed for impact, why avoidance was not feasible, and the compensation provided to ensure biologically equivalent or superior preservation. The riparian/riverine features proposed for impact will be compensated at a minimum 3:1 ratio. The Wildlife Agencies are provided the DBESP for review by the Permittee and they have 60 days to review the DBESP and provide comments. If no comments are provided by the Wildlife Agencies within 60 days, the DBESP is considered approved. If comments are received, the comments need to be addressed until the Permittee has determined that the Project is in compliance with the requirements of the MSHCP.

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

- Purchase of 0.48 acre of rehabilitation credits at the Riverpark Mitigation Bank;
- Purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank; and
- Purchase of 0.48 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank.

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 directed away from the drainage features. 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 is not increased.

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.

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 On Site 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 Off Site are also located within the Southwest Area Plan Subunit 5 – French Valley/Lower Sedco Hills of the MSHCP and Southwest Area Plan Subunit 4 – Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch of the MSHCP.

Specifically, the On Site Project falls within all or portions of Criteria Cells 5067, 5070, 5074, 5169, 5173, 5175, and 5275 as well as Cell Group U. The Off Site Project is also partially or wholly located in the MSHCP Criteria Area. It is located within portions of Criteria Cells 5067, 5169, 5170, 5173, 5174, 5175, 5275, 5278, 5279, and 5969. The Off Site Project is also within Cell Groups S, U, and V [Exhibit 5A – MSHCP 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 5B – 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 stenocarpa*). 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 grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). According to the JPR completed for the On Site Project (JPR 09-12-14-01], the On Site Project is not located within the MSHCP Invertebrate, Mammalian, or Amphibian Survey Areas, but is located within Proposed Constrained Linkage 17.

The project development footprint, minus its off-site improvements, was previously determined to be consistent with the MSHCP as part of JPR 09-12-14-01, dated February 25, 2010. This JPR required the conservation of 61.10 acres of land within the northern portion of the On Site Project.[26] A HANS determination letter, HANS 1995, was also approved for the On Site Project. This letter determined that the RCA concurred with the partial site conservation documented in the JPR. It is expected that amendments to the HANS and JPR may be needed to cover off-site improvements, or a new JPR and/or HANS will be required for the Off Site Project. It should be noted that Winchester Road, Keller Road, and Washington Street are considered as "covered roads" under the MSCHP, which means that a HANS is not necessary for the off site road improvements for each of these roads as their impact was already contemplated in the MSHCP,

[26] Please note that the JPR prepared for the project required 61.10 acres of conservation open space to be dedicated to the RCA; however the Project Specific Plan requires the set aside of approximately 61.4 acres of open space land; therefore, the actual conservation land set aside is 61.42 acres of land which will comply with both the MSHCP and Specific Plan requirements.

but a JPR would be required. Pourroy Road is not considered as a covered road under the MSHCP north of Keller Road; however, improvements to Pourroy Road north of Keller Road would be limited to utility improvements and may need to undergo the HANS and JPR processes. A copy of the JPR approval letter is attached as Exhibit 11.

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

Due to proposed impacts to approximately 0.42 acre of riverine and 0.06 acre of riparian areas [a total of 0.48 acre] on the Project, a DBESP will be required. 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 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 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. As such, the proposed Project would be consistent with *Volume I, Section 6.1.3* of the MSHCP. Focused plant surveys conducted in 2021 were negative for all of these species; therefore, the On and Off Site Project are consistent with the MSHCP pursuant to Section 6.1.3.

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 On and Off Site 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 Off Site Project occurs within CAPSSA and NEPSSA survey areas, focused plant surveys were conducted and no CAPSSA or NEPSSA target species were observed. The On and Off Site 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 On and Off Site Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the On and Off Site 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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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: March 22, 2022

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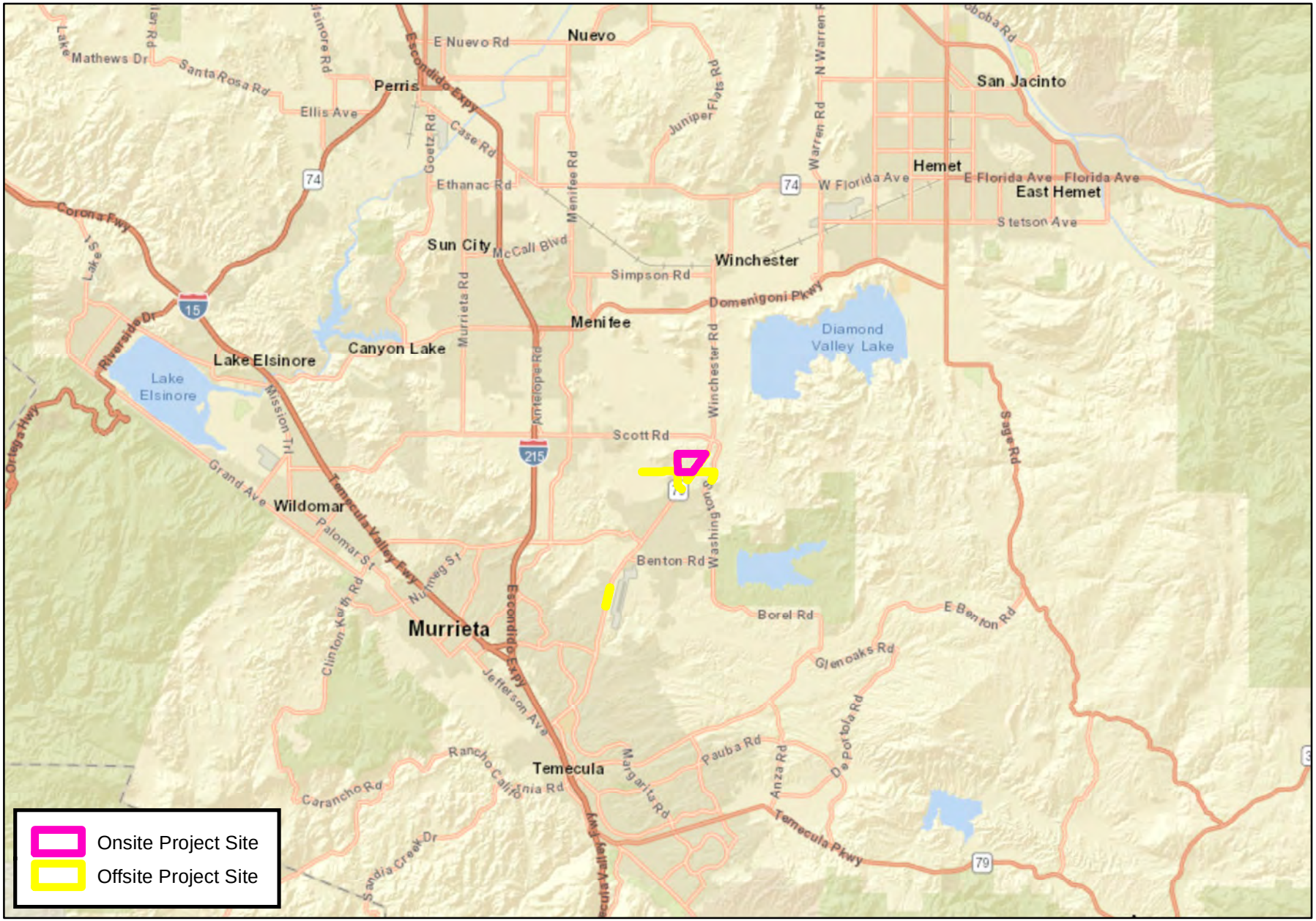

Source: ESRI World Street Map

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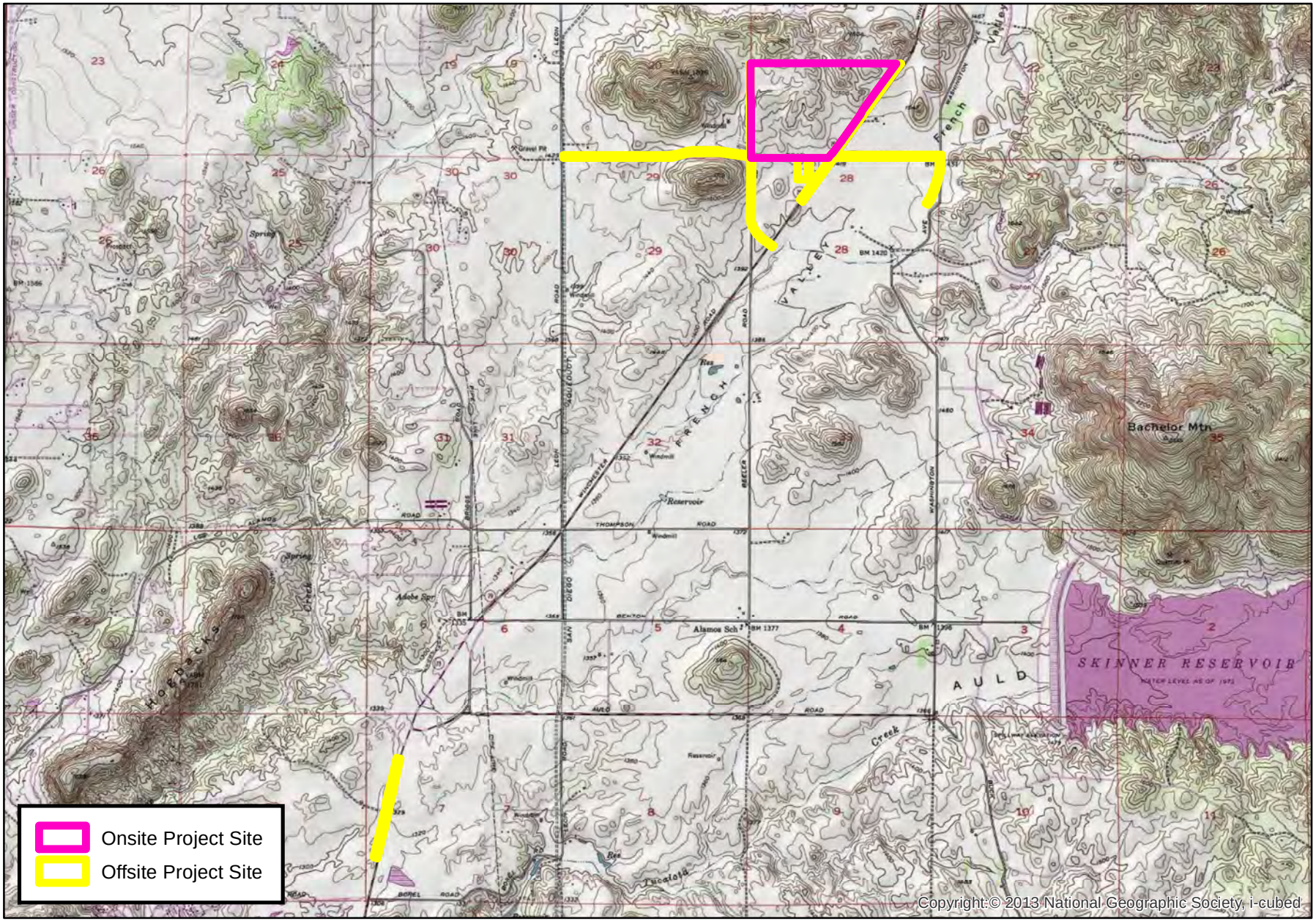
0 2 4 8 Miles

KELLER CROSSING PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Bachelor Mountain, Murrieta and Winchester CA quadrangles

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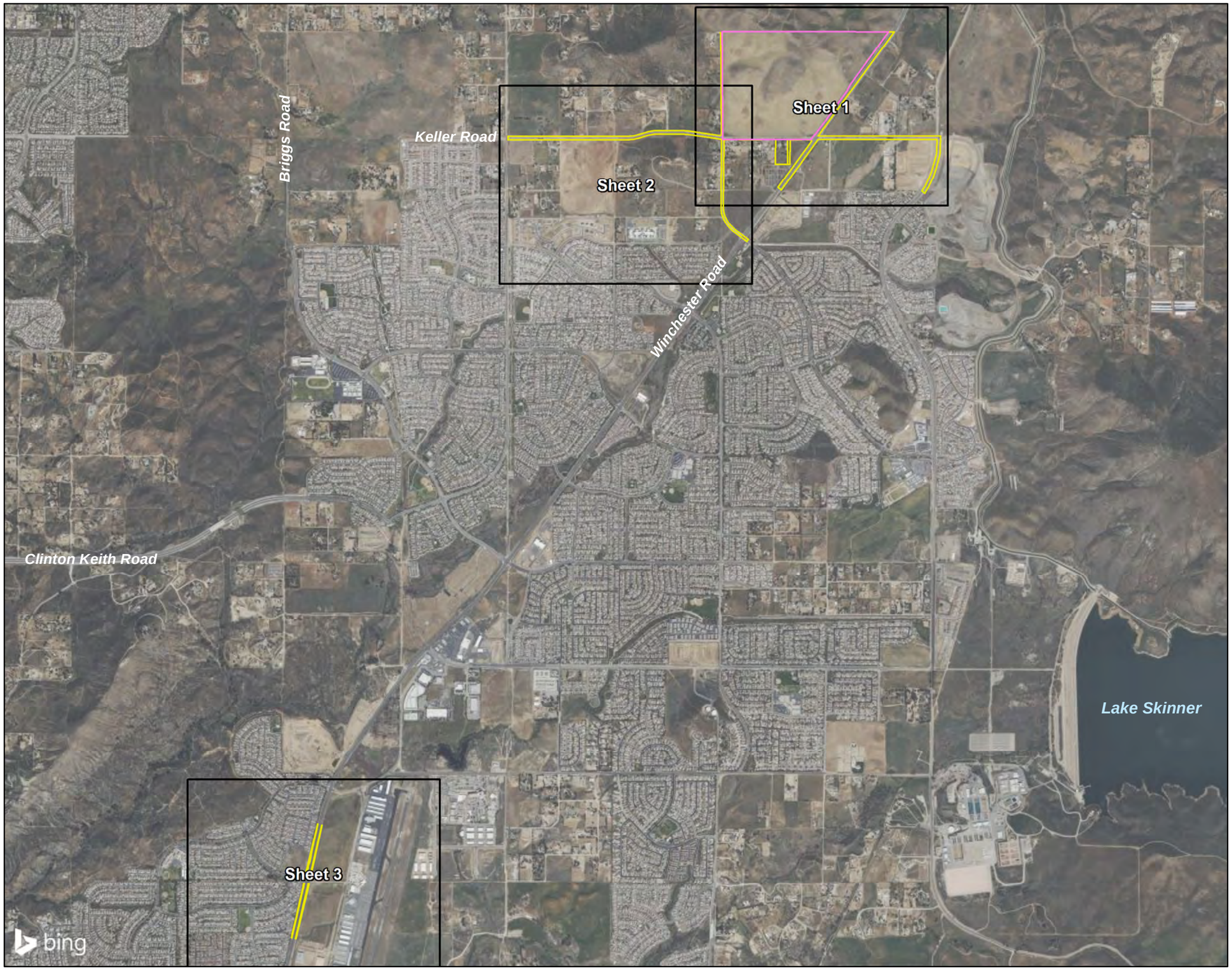
KELLER CROSSING PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Onsite Project Site

Offsite Project Site

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Key Map

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Onsite Project Site

Offsite Project Site

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: July 20, 2022

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

Onsite Project Site

Offsite Project Site

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: July 20, 2022

KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\446-162_Aerial_Sheet2.mxd

Offsite Project Site

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: July 20, 2022

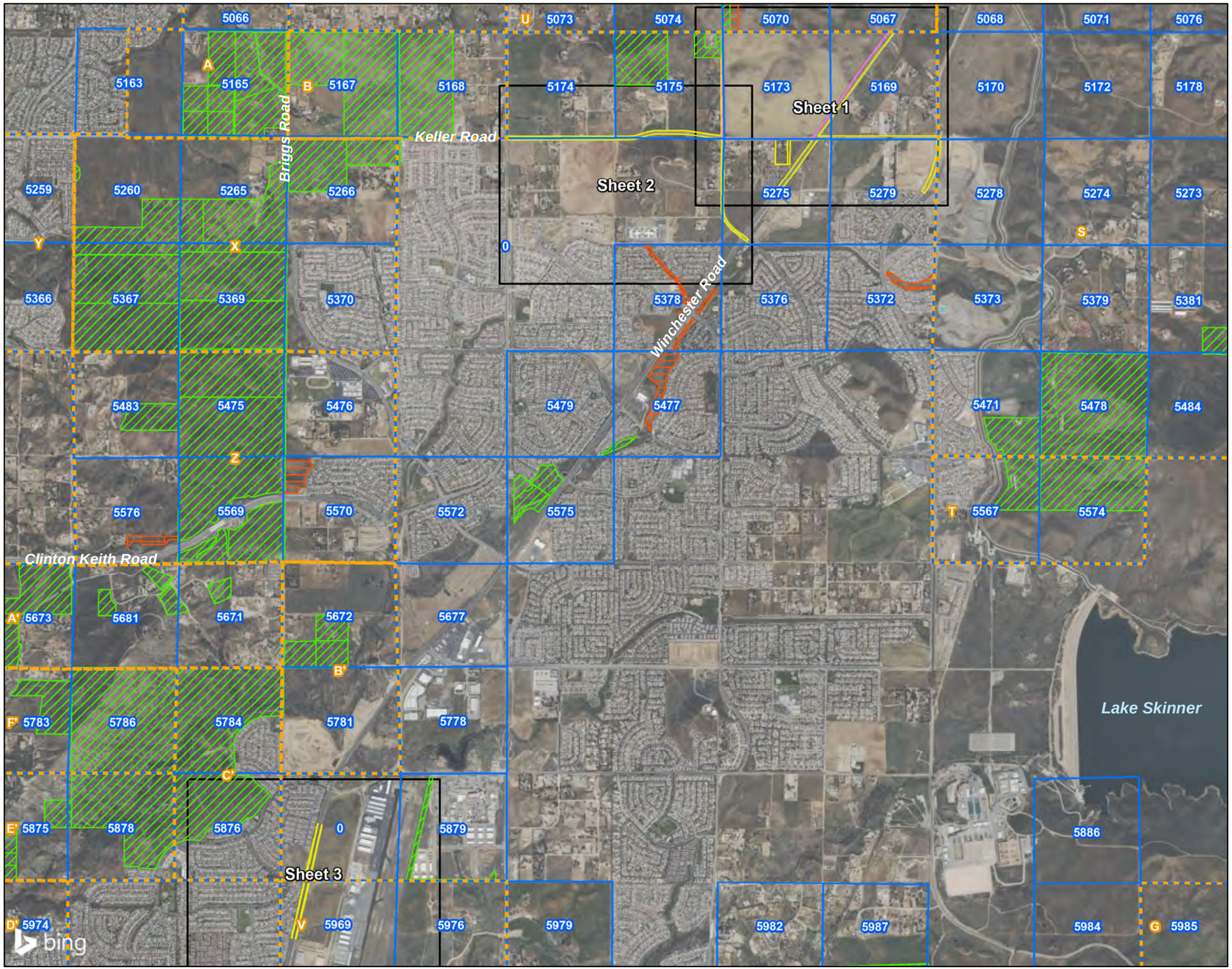
KELLER CROSSING PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\446-162_Aerial_Sheet3.mxd



Onsite Project Site

Offsite Project Site

Cell Group

Criteria Cell

MSHCP Conserved Lands

MSHCP Conservation Easements

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 5A - Key Map

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

Onsite Project Site
Offsite Project Site
Cell Group
Criteria Cell
MSHCP Conserved Lands
MSHCP Conservation Easements

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 5A - Sheet 1

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

Onsite Project Site

Offsite Project Site

Cell Group

Criteria Cell

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 5A - Sheet 2

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

Offsite Project Site

Cell Group

Criteria Cell

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: July 20, 2022

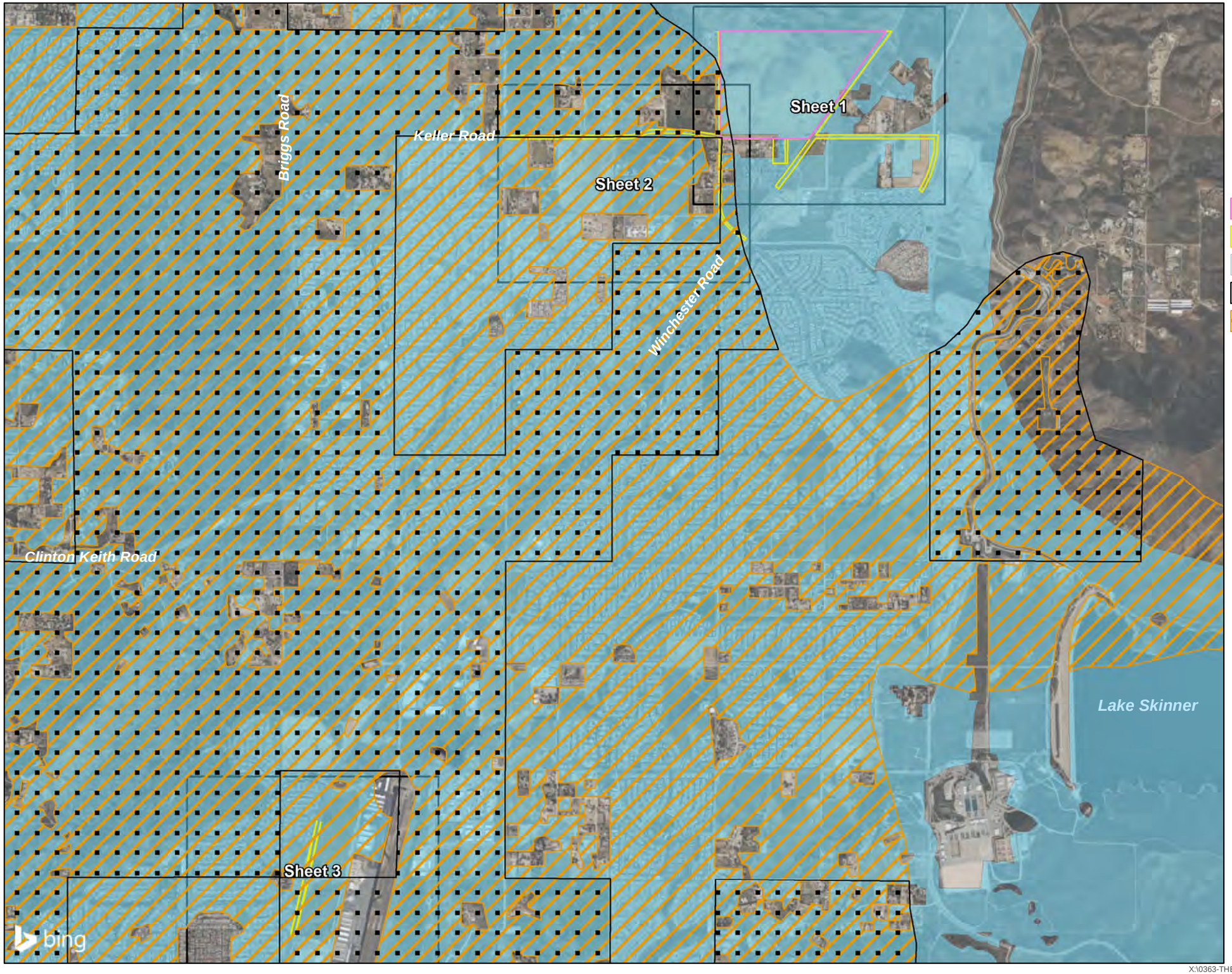
KELLER CROSSING PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 5A - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Overlay_Sheet3.mxd



Onsite Project Site
Offsite Project Site
Burrowing Owl Survey Area
Criteria Area Species Survey Area
Narrow Endemic Plant Species Survey Area

N

0 1,200 2,400 4,800
Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

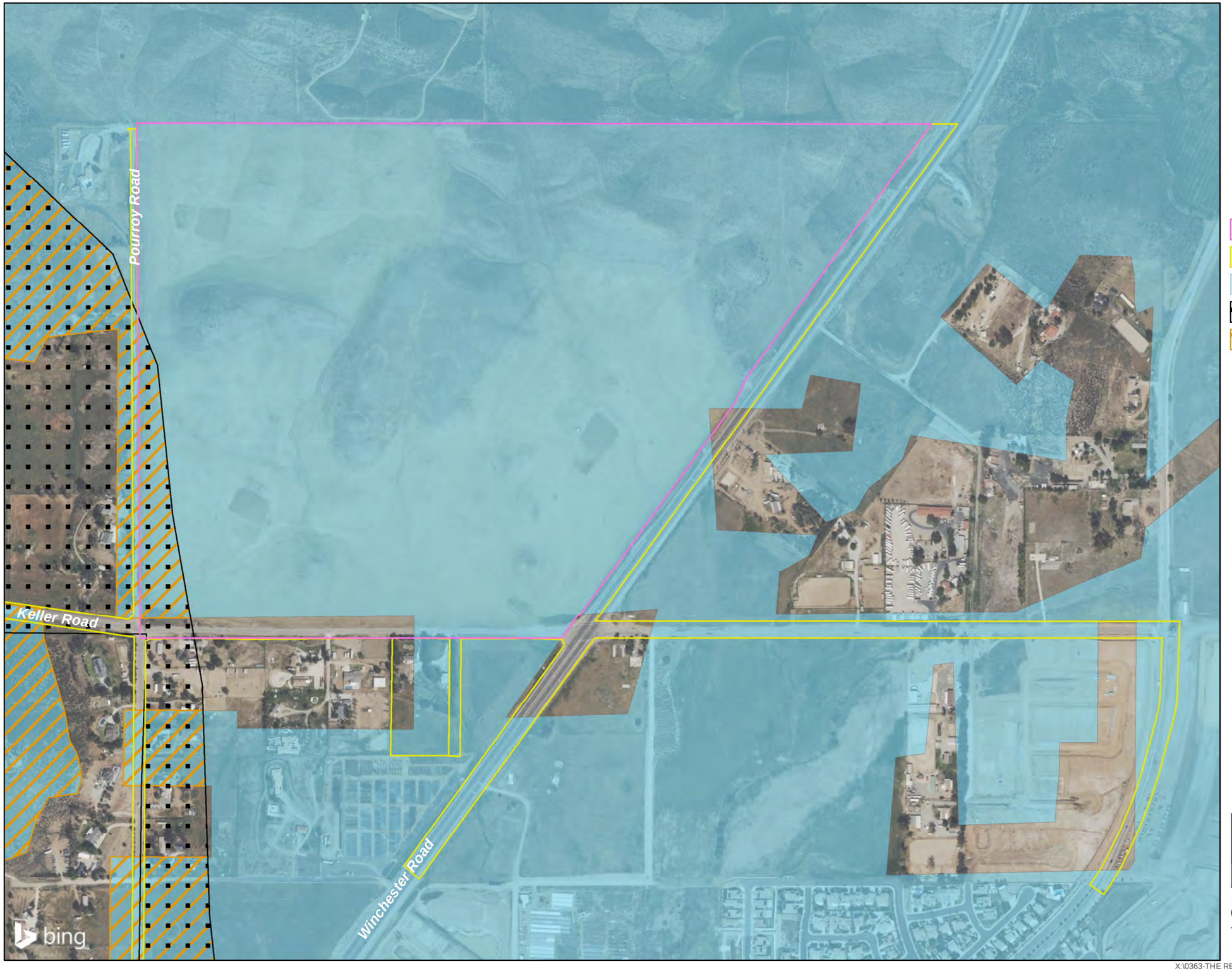
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 5B - Key Map

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



Onsite Project Site
Offsite Project Site
Burrowing Owl Survey Area
Criteria Area Species Survey Area
Narrow Endemic Plant Species Survey Area

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: July 20, 2022

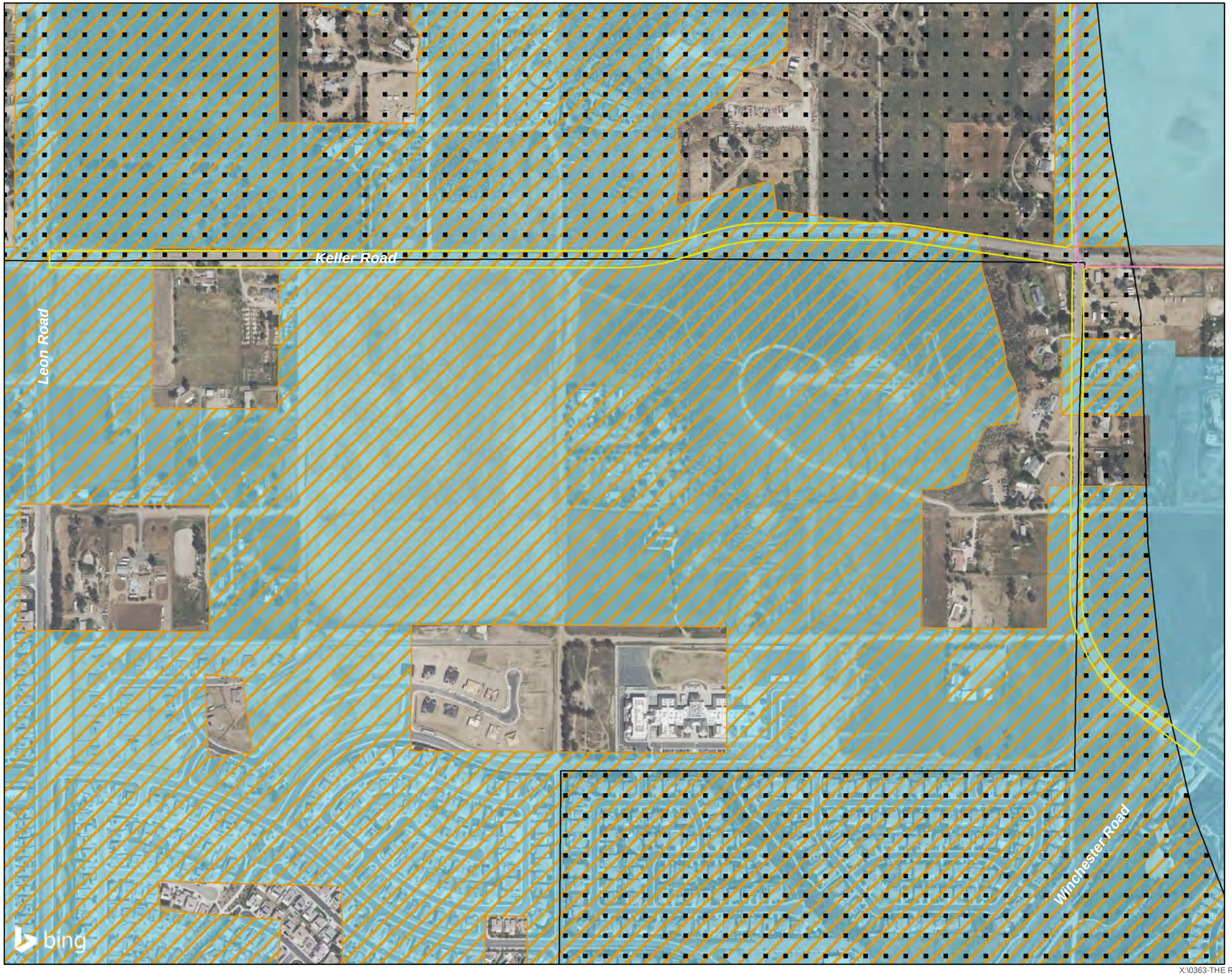
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 5B - Sheet 1

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Survey_Sheet1.mxd



Onsite Project Site
Offsite Project Site
Criteria Area Species Survey Area
Narrow Endemic Plant Species Survey Area
Burrowing Owl Survey Area

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: July 20, 2022

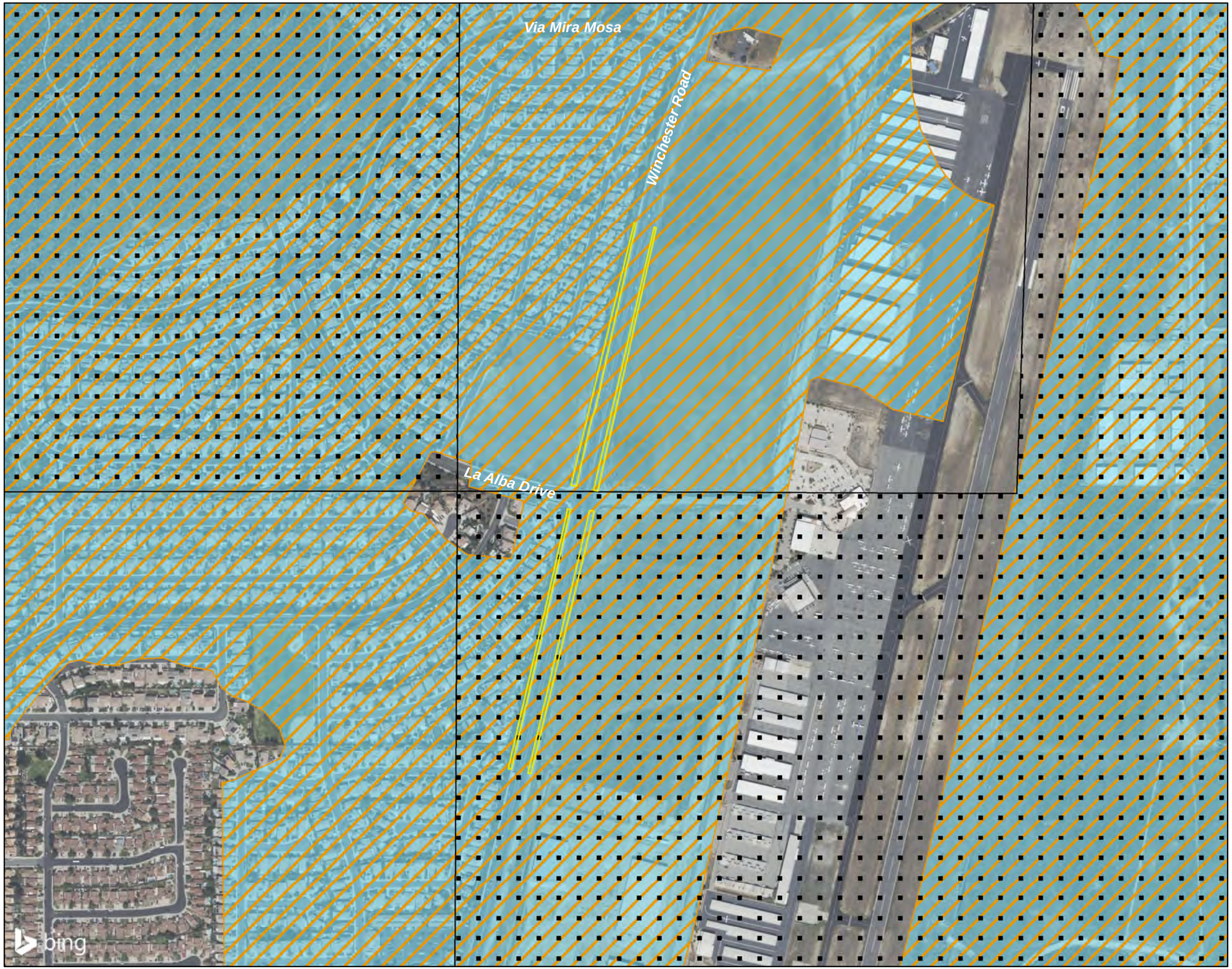
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 5B - Sheet 2

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



Offsite Project Site

Burrowing Owl Survey Area

Criteria Area Species Survey Area

Narrow Endemic Plant Species Survey Area

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: July 20, 2022

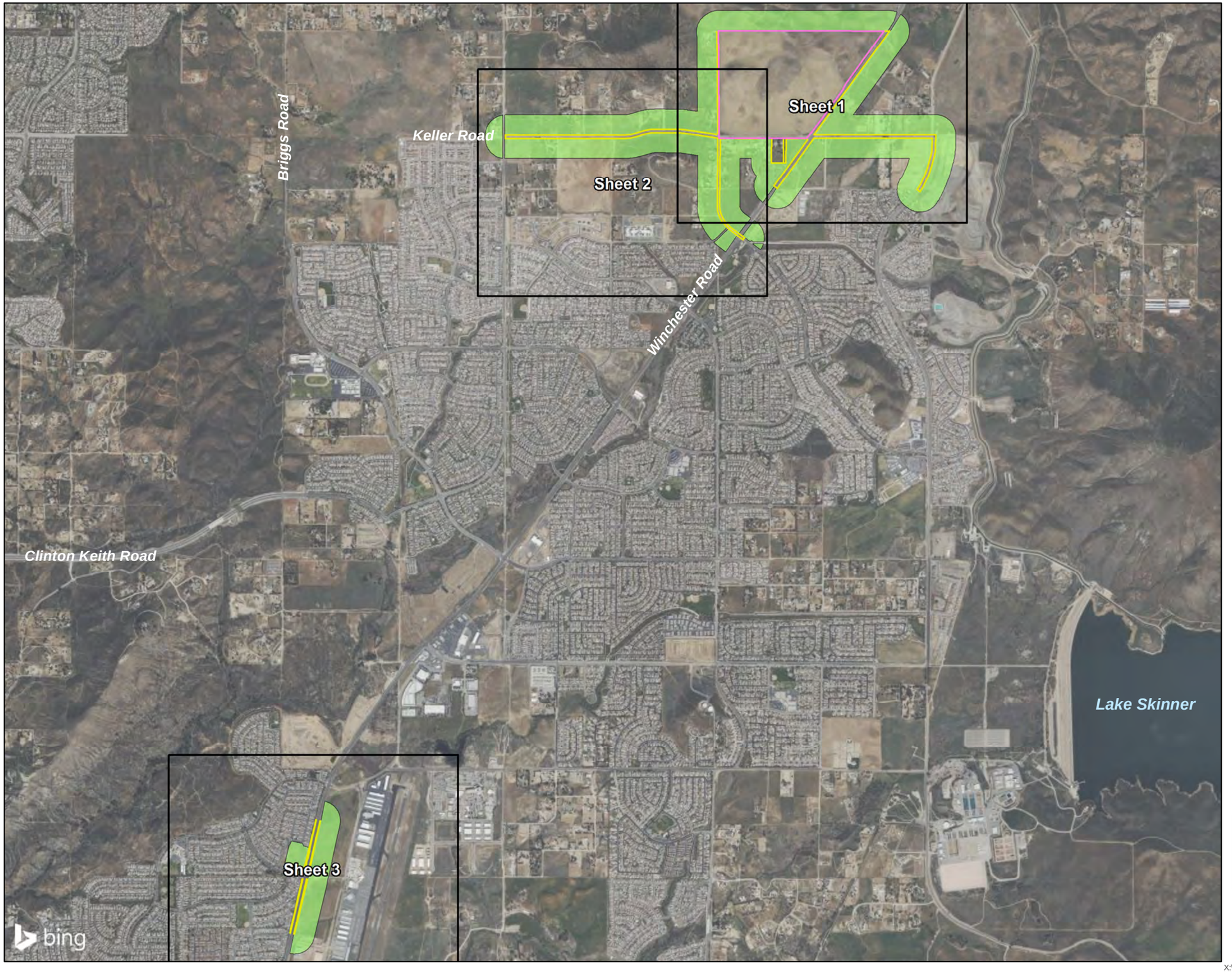
KELLER CROSSING PROJECT

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 5B - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\MSHCPGIS\446-162_MSHCP_Survey_Sheet3.mxd



Onsite Project Site

Offsite Project Site

500' Visual Survey Area

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Key Map

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

Onsite Project Site

Offsite Project Site

500' Visual Survey Area

Transect

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: July 20, 2022

KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 1

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

Onsite Project Site

Offsite Project Site

500' Visual Survey Area

Transect

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: July 20, 2022

KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 2

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

Offsite Project Site

500' Visual Survey Area

Transect

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: July 20, 2022

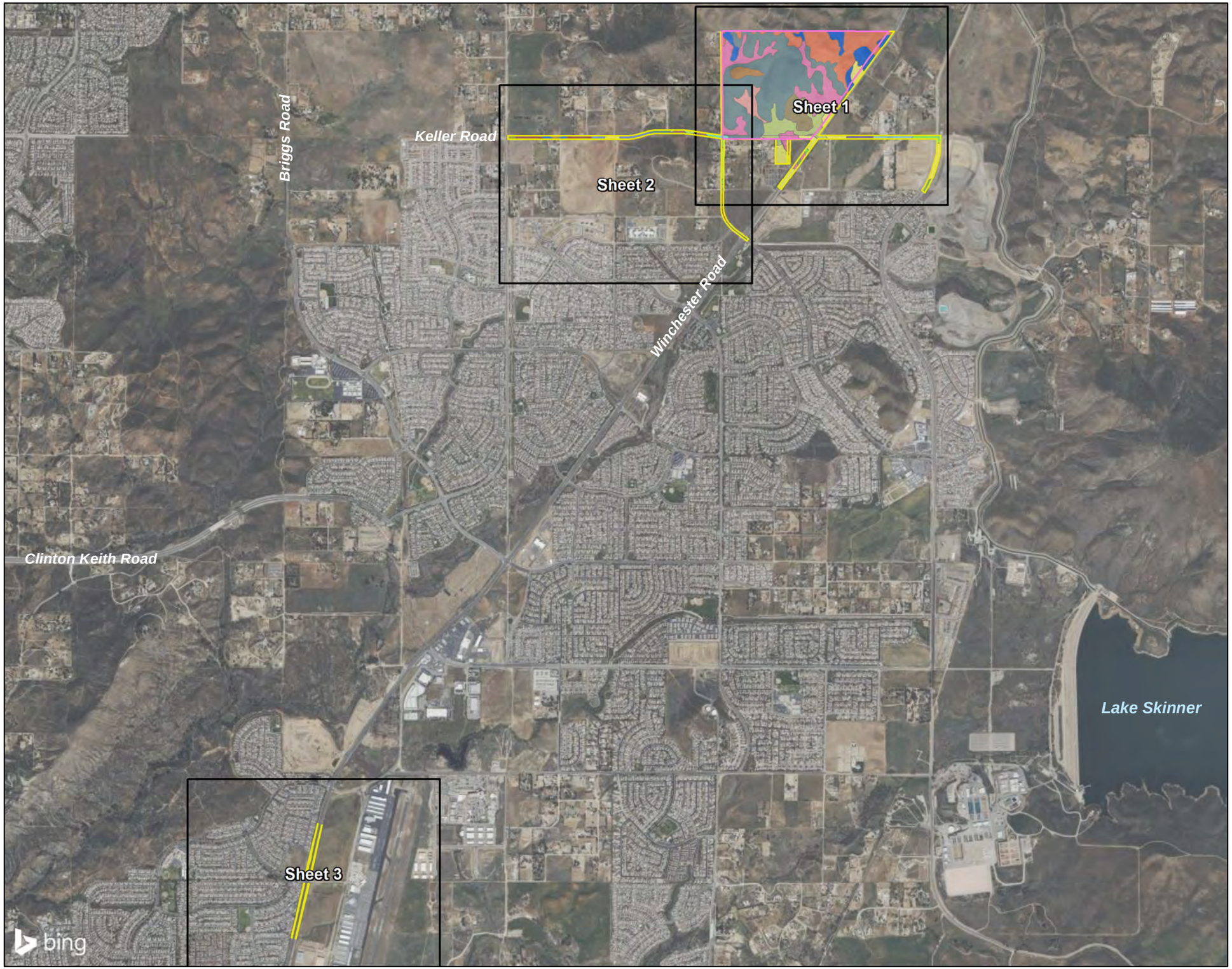
KELLER CROSSING PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\BUOWGIS\446-162_BUOW_Sheet3.mxd



- Onsite Project Site
- Offsite Project Site
- AaF - Altamont clay, 25 to 50 percent slopes
- AuC - Auld clay, 2 to 8 percent slopes
- AuD - Auld clay, 8 to 15 percent slopes
- BfC - Bosanko clay, 2 to 8 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 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

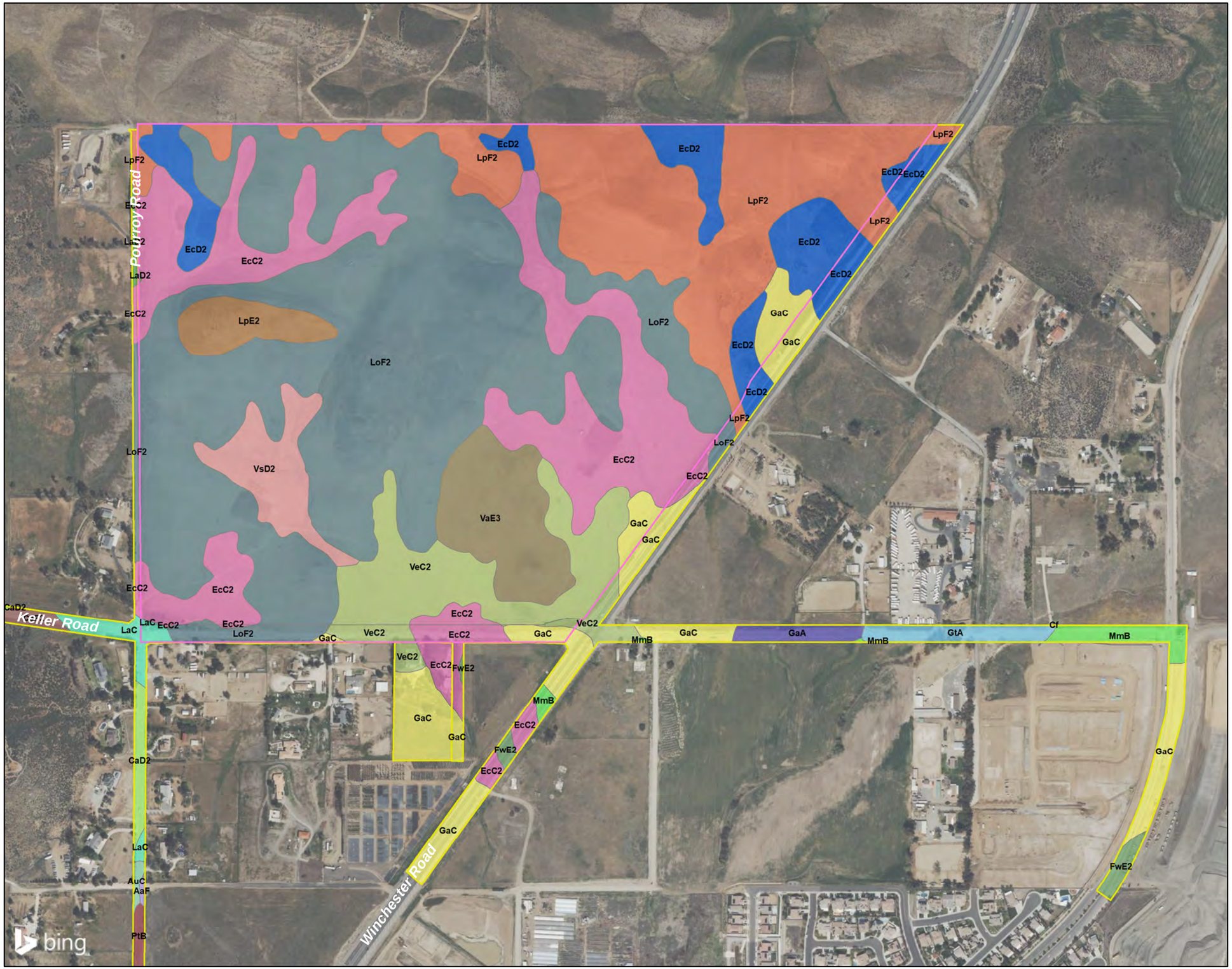
KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Key Map

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



- Onsite Project Site
- Offsite Project Site
- 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: July 20, 2022

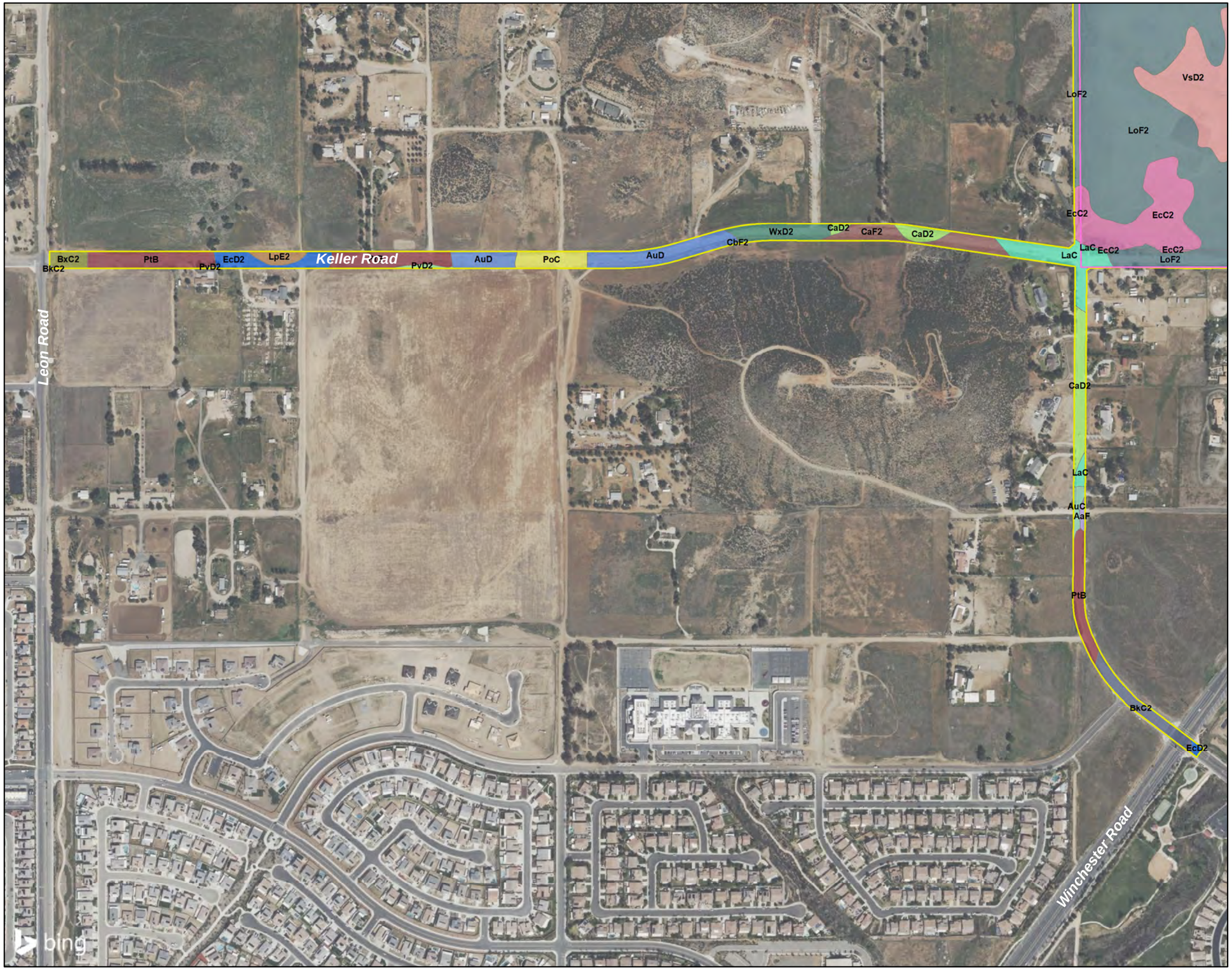
KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Sheet 1

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



- Onsite Project Site
- Offsite Project Site
- 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: July 20, 2022

KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Sheet 2

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

Offsite Project Site
AuC - Auld clay, 2 to 8 percent slopes
BfC - Bosanko clay, 2 to 8 percent slopes
BxC2 - Buren loam, deep, 2 to 8 percent slopes, eroded
LaC - Las Posas loam, 2 to 8 percent slopes
MmC2 - Monserate sandy loam, 5 to 8 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: July 20, 2022

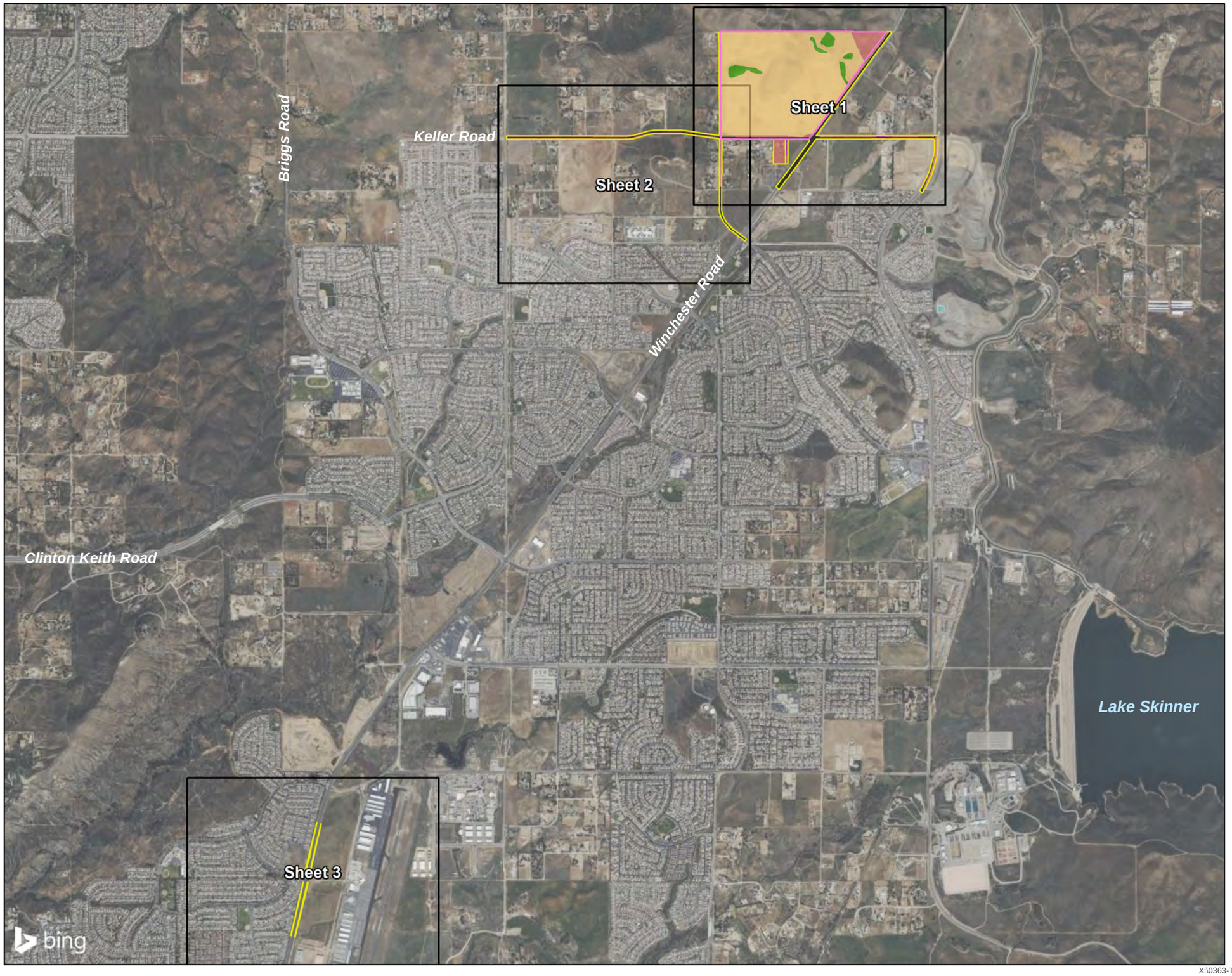
KELLER CROSSING PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7 - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\SoilsGIS\446-162_Soils_Sheet3.mxd



- Onsite Project Site
- Offsite Project Site
- Agriculture
- Disturbed Mulefat Scrub
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Ornamental

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

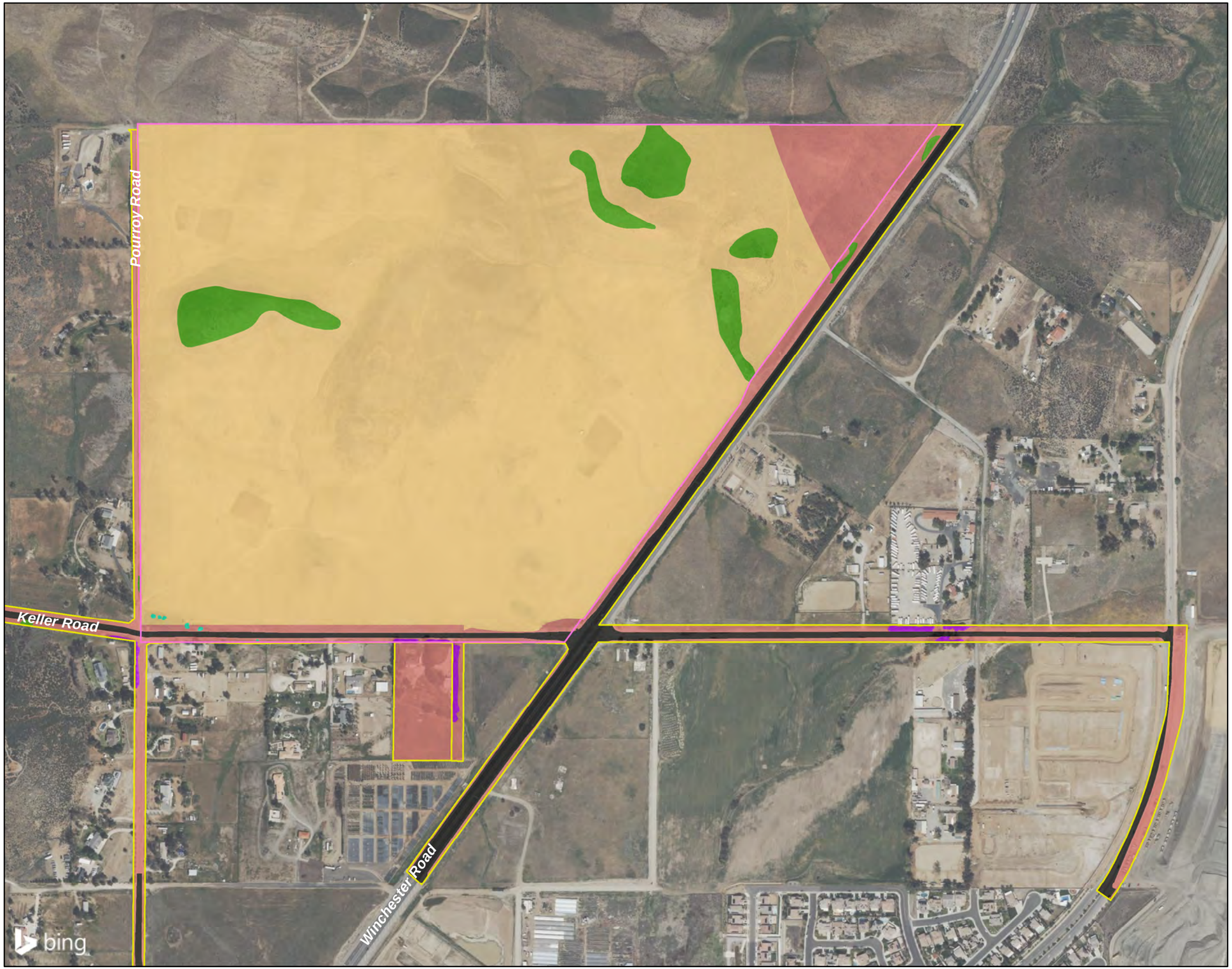
KELLER CROSSING PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 8 - Key Map

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



Onsite Project Site
Offsite Project Site
Agriculture
Disturbed Mulefat Scrub
Developed
Disturbed
Disturbed Buckwheat 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: July 20, 2022

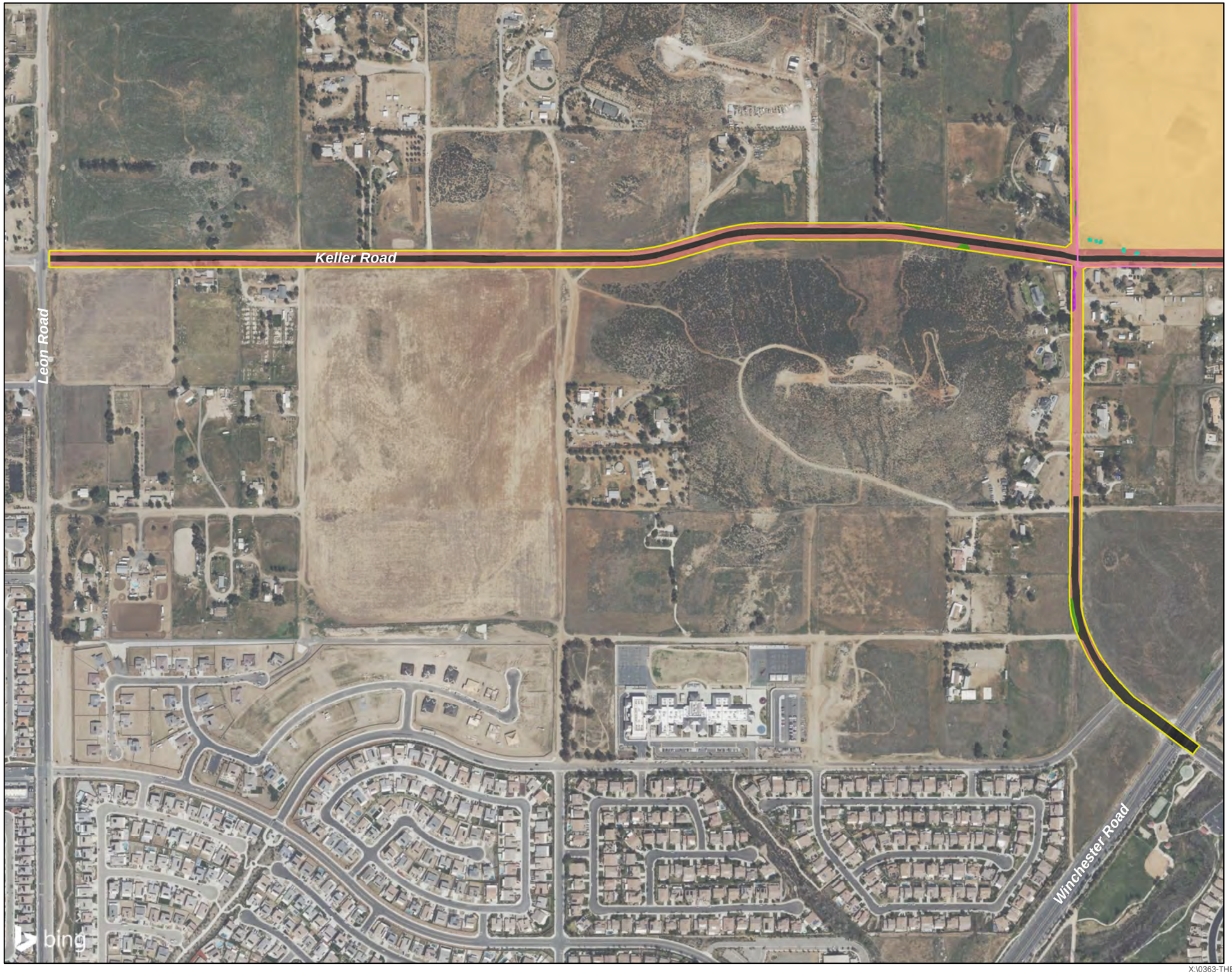
KELLER CROSSING PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 8 - Sheet 1

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



Onsite Project Site
Offsite Project Site
Agriculture
Disturbed Mulefat Scrub
Developed
Disturbed
Disturbed Buckwheat 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: July 20, 2022

KELLER CROSSING PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 8 - Sheet 2

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

- Offsite Project Site
- Developed
- Disturbed
- Disturbed Buckwheat 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: July 20, 2022

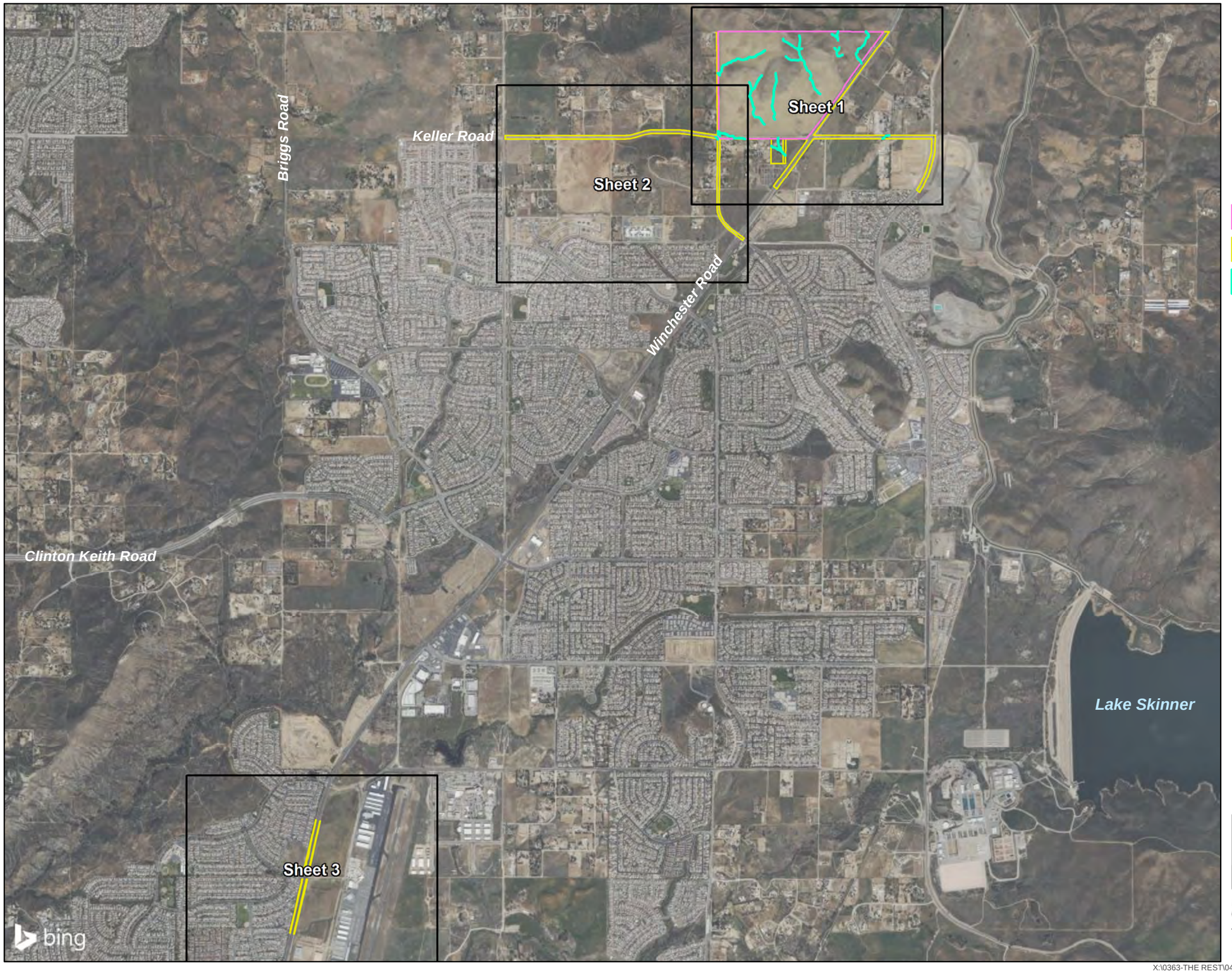
KELLER CROSSING PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 8 - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\VegetationGIS\446-162_Veg_Sheet3_REV1.mxd



Onsite Project Site

Offsite Project Site

Non-Wetland Waters of the State

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

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

Onsite Project Site

Offsite Project Site

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: July 20, 2022

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

Onsite Project Site

Offsite Project Site

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: July 20, 2022

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

Offsite Project Site

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: July 20, 2022

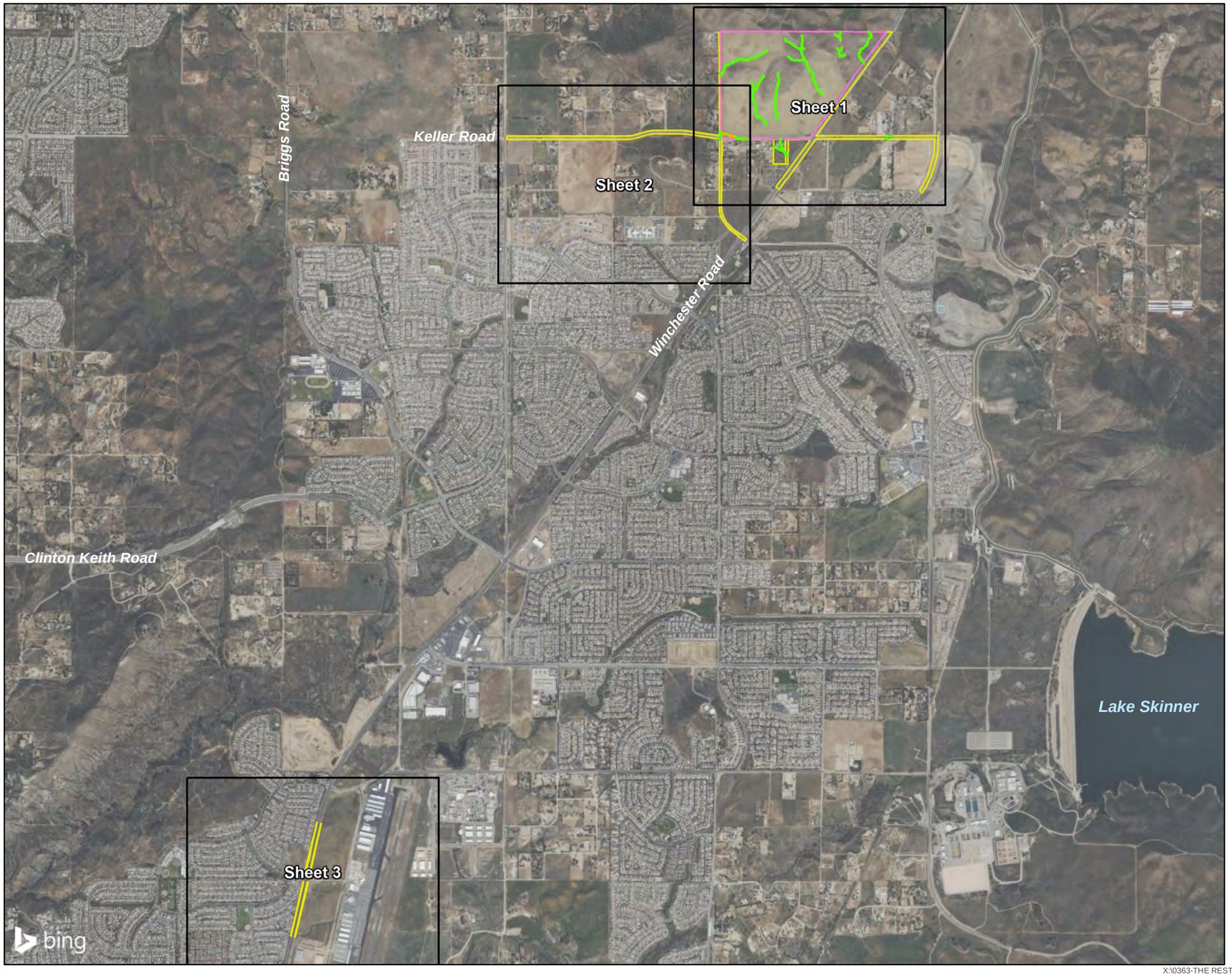
KELLER CROSSING PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9A - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\DelineationGIS\REV1\446-162_RWQCB_Sheet3_REV1.mxd



Onsite Project Site

Offsite Project Site

CDFW Non-Riparian Stream

CDFW Riparian

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Key Map

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Onsite Project Site

Offsite Project Site

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: July 20, 2022

KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Sheet 1

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Onsite Project Site

Offsite Project Site

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: July 20, 2022

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

Offsite Project Site

Offsite Project Footprint

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: July 20, 2022

KELLER CROSSING PROJECT

CDFW Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 9B - Sheet 3

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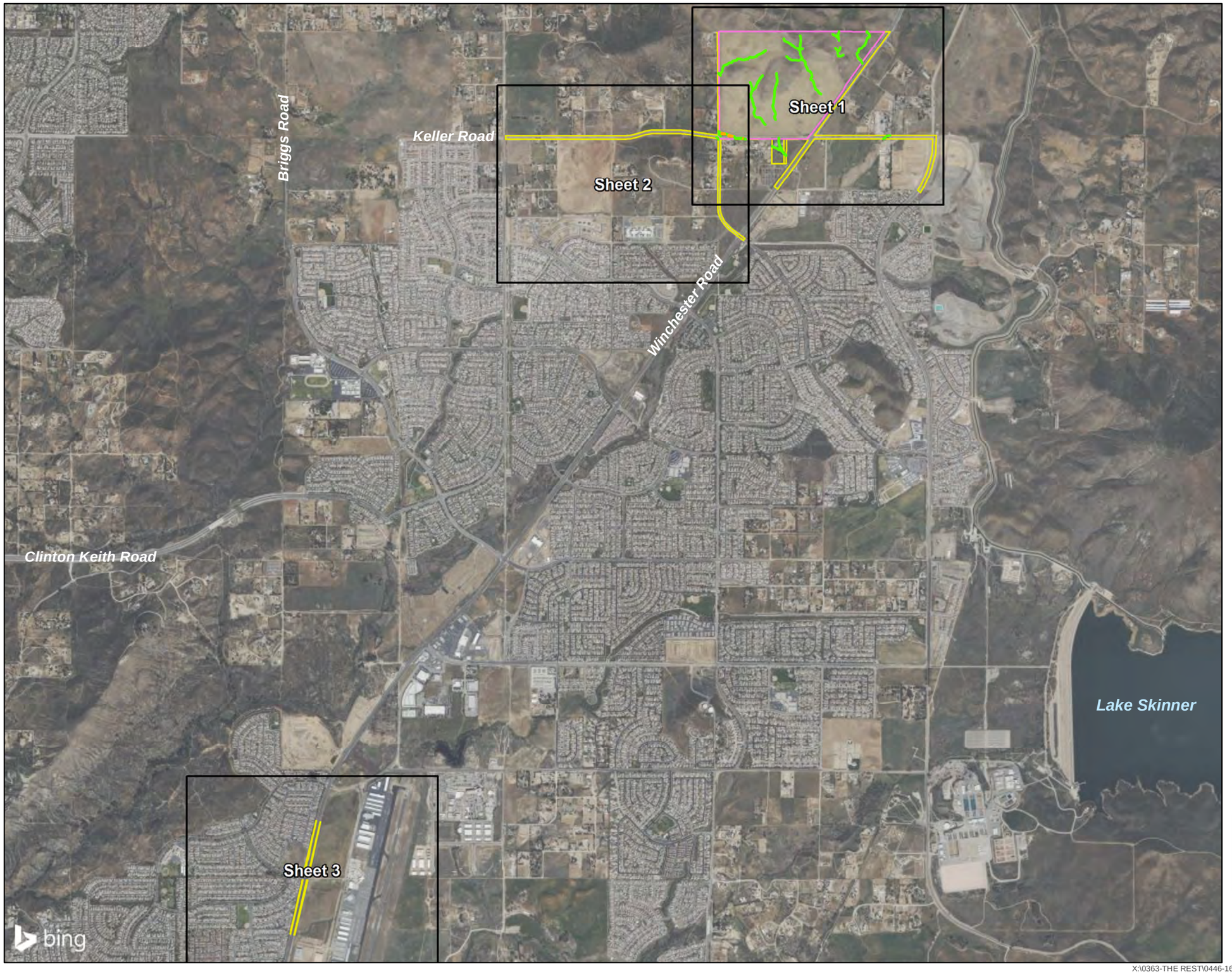

Onsite Project Site

Offsite Project Site

MSHCP Riverine

MSHCP Riparian

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Key Map

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Onsite Project Site

Offsite Project Site

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Sheet 1

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Onsite Project Site

Offsite Project Site

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Sheet 2

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Offsite Project Site

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 9C - Sheet 3

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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.

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.

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.

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.

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

Regional Conservation Authority
Western Riverside County

RCA Joint Project Review (JPR)

JPR #: 09-12-14-01
Date: 1-25-10

Project Information

Permittee: **County of Riverside**
Case Information: **HANS 1995**
Site Acreage: **195.13 acres**
Portion of Site Proposed for MSHCP Conservation Area: **61.1 acres**

Criteria Consistency Review

Consistency Conclusion: The project is consistent with both the Criteria and other Plan requirements.

Data:

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

APN	Sub-Unit	Cell Group	Cell
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	SU 5 – French Valley/Lower Sedco Hills	Independent U	5169 5173 5070 5175

Comments:

a. 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.

b. Approximately 156.38 acres of the approximately 195-acre site is located within Cell 5173. 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.

c. Approximately 36 acres of the 195-acre site is located in Cell 5169. 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.

d. Approximately 1 acre of the site is located in Cell 5175. 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.

e. Approximately 1 acre of the site is located in 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 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.

f. 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 (0.1 acre) of 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 acres, the project does contribute to Reserve Assembly requirements.

Other Plan Requirements

Data:

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

Yes. There are riparian/riverine resources on site. There are no vernal pools and/or fairy shrimp habitat on site.

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

Yes. The project site is located within a Narrow Endemic Plant Species Survey Area (NEPSSA) for Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis.

Section 6.3.2 – Was Additional Survey Information Provided?

Yes. The project site is located in a Criteria Area Species Survey Area (CASSA) for Davidson's saltscale, Parish's brittlescale, thread-leaved brodiaea, smooth tarplant, round-leaved filaree, Coulter's goldfields, and little mousetail. The project site is also located in an Additional Survey Area for burrowing owl.

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

Yes. The property is located near Conservation Areas.

Comments:

a. Section 6.1.2: 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.

b. Section 6.1.3: 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.

c. Section 6.3.2: 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. 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.

d. Section 6.1.4: 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 should be considered by the Permittee in their actions relative to the project. Specifically, the Permittee should include as project conditions of approval the following measures:

   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 directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.

   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. Consider the invasive, non-native plant species listed in Table 6-2 of the MSHCP in approving landscape plans to 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.

vi. 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 into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

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

SNS

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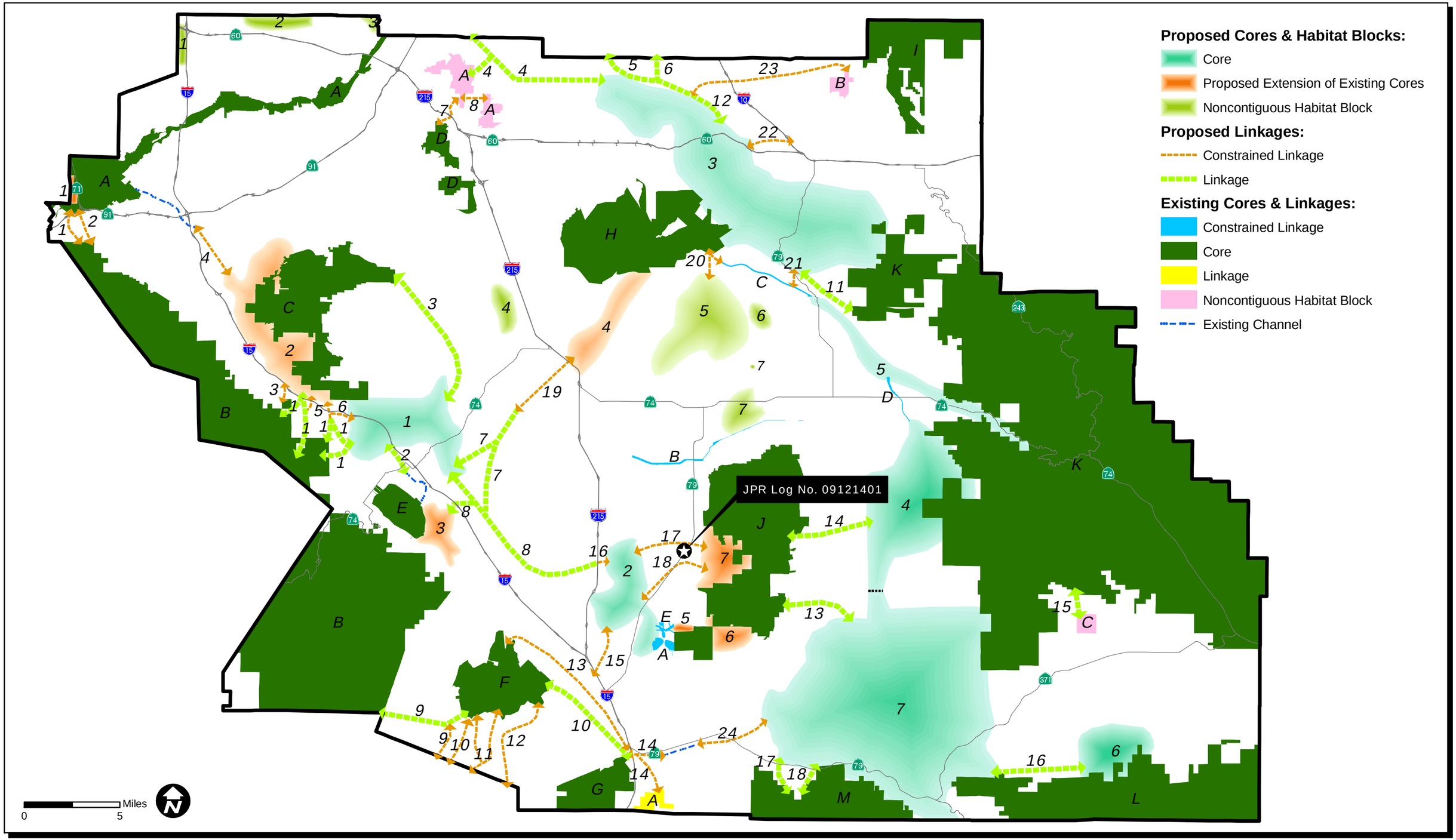
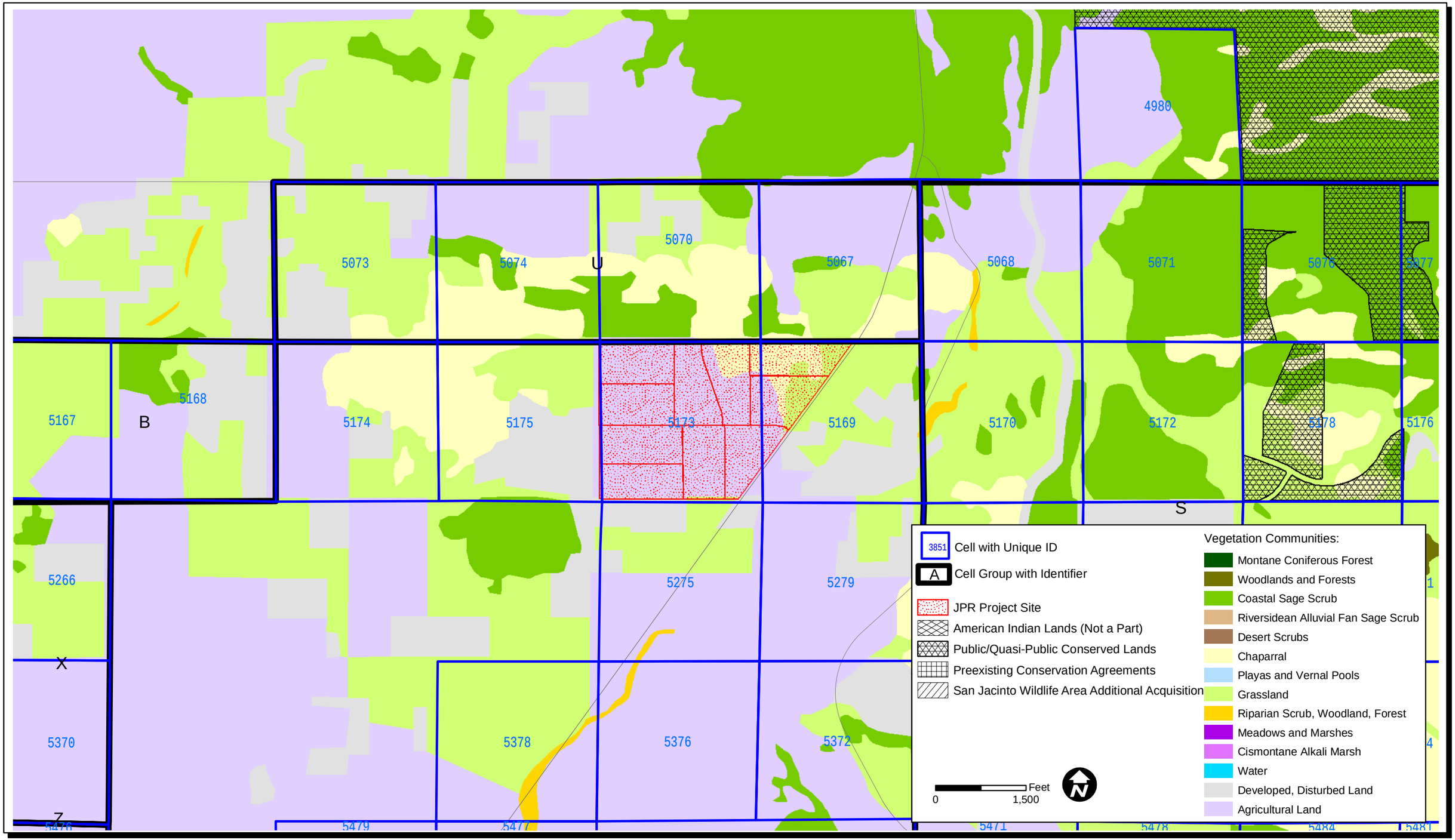


JPR Log No. 09121401

Vicinity Map with MSHCP Schematic Cores and Linkages

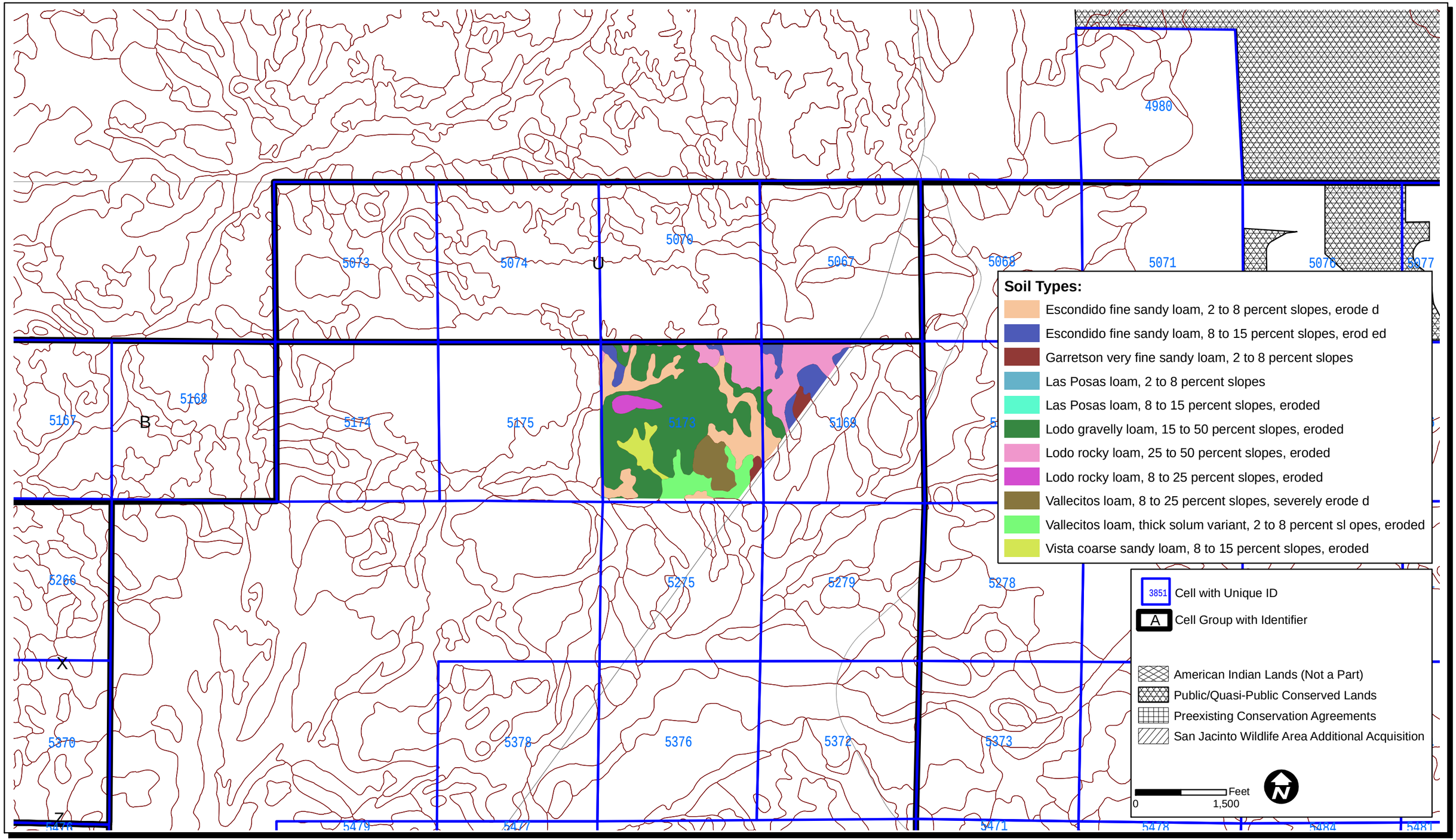
EXHIBIT A



JPR Log No. 09121401

Criteria Area Cells with MSHCP Vegetation and Project Location

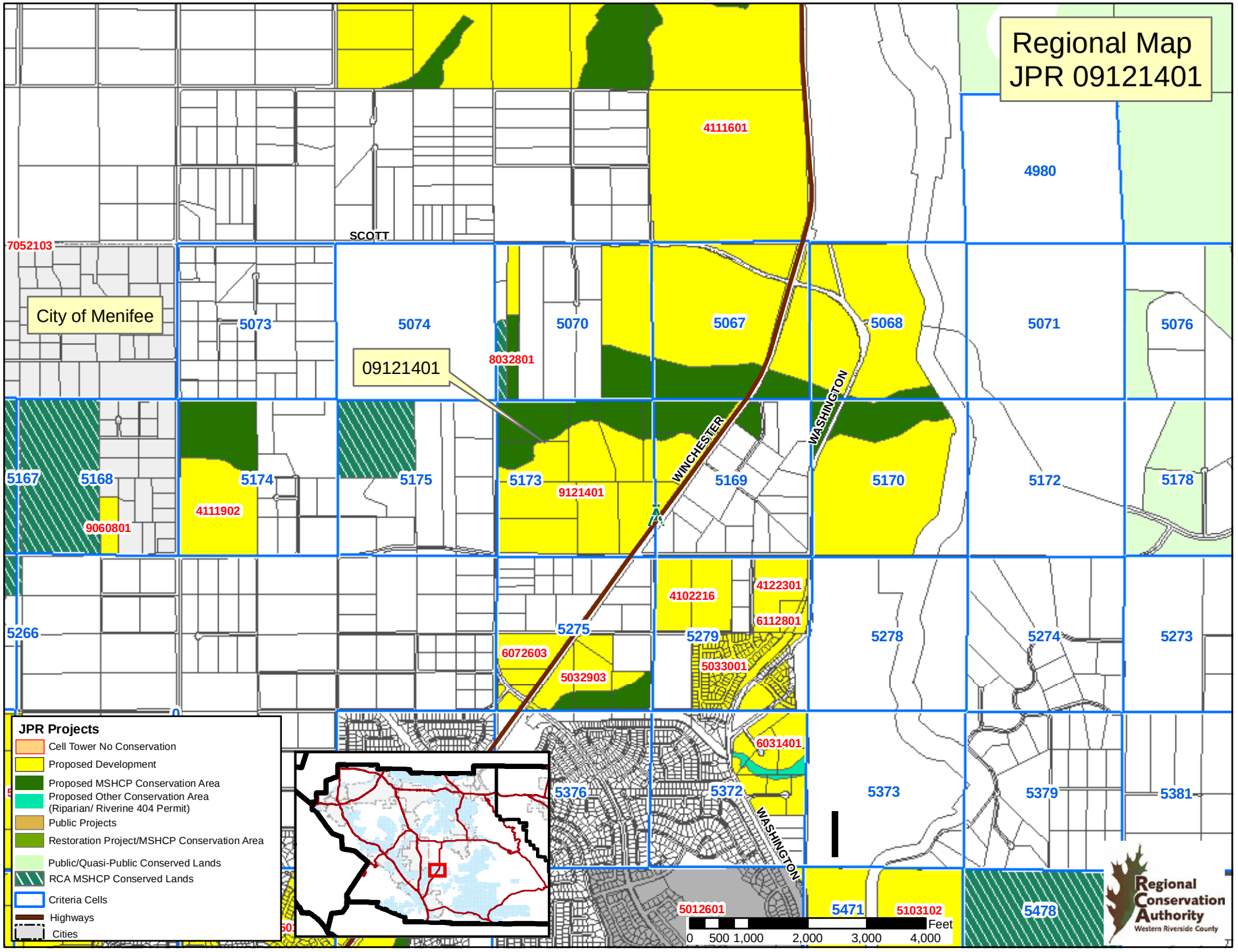
EXHIBIT B



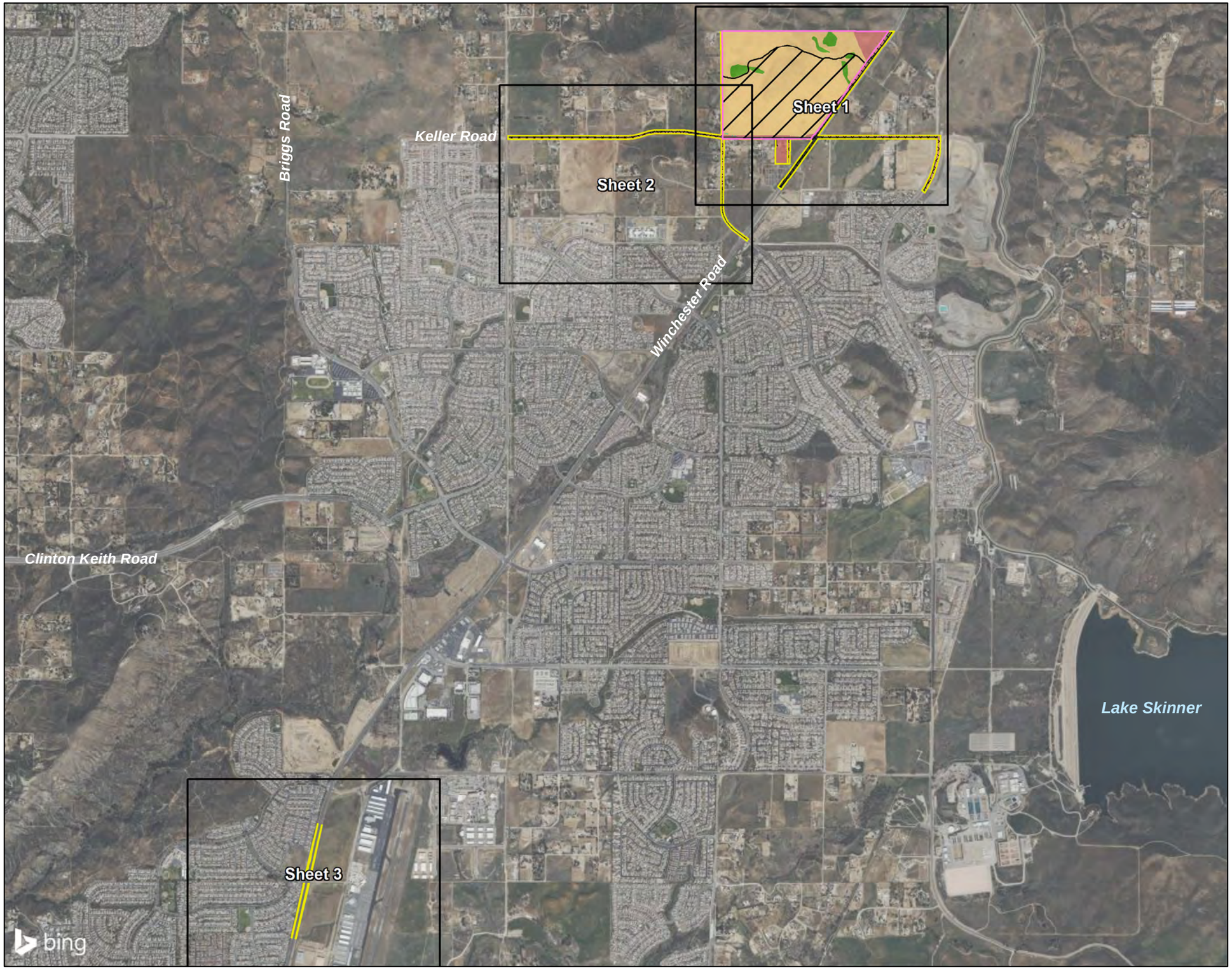
JPR Log No. 09121401

Criteria Area Cells with MSHCP Soils and Project Location

EXHIBIT C



Rough Step Unit # 6



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

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

Vegetation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 12 - Key Map

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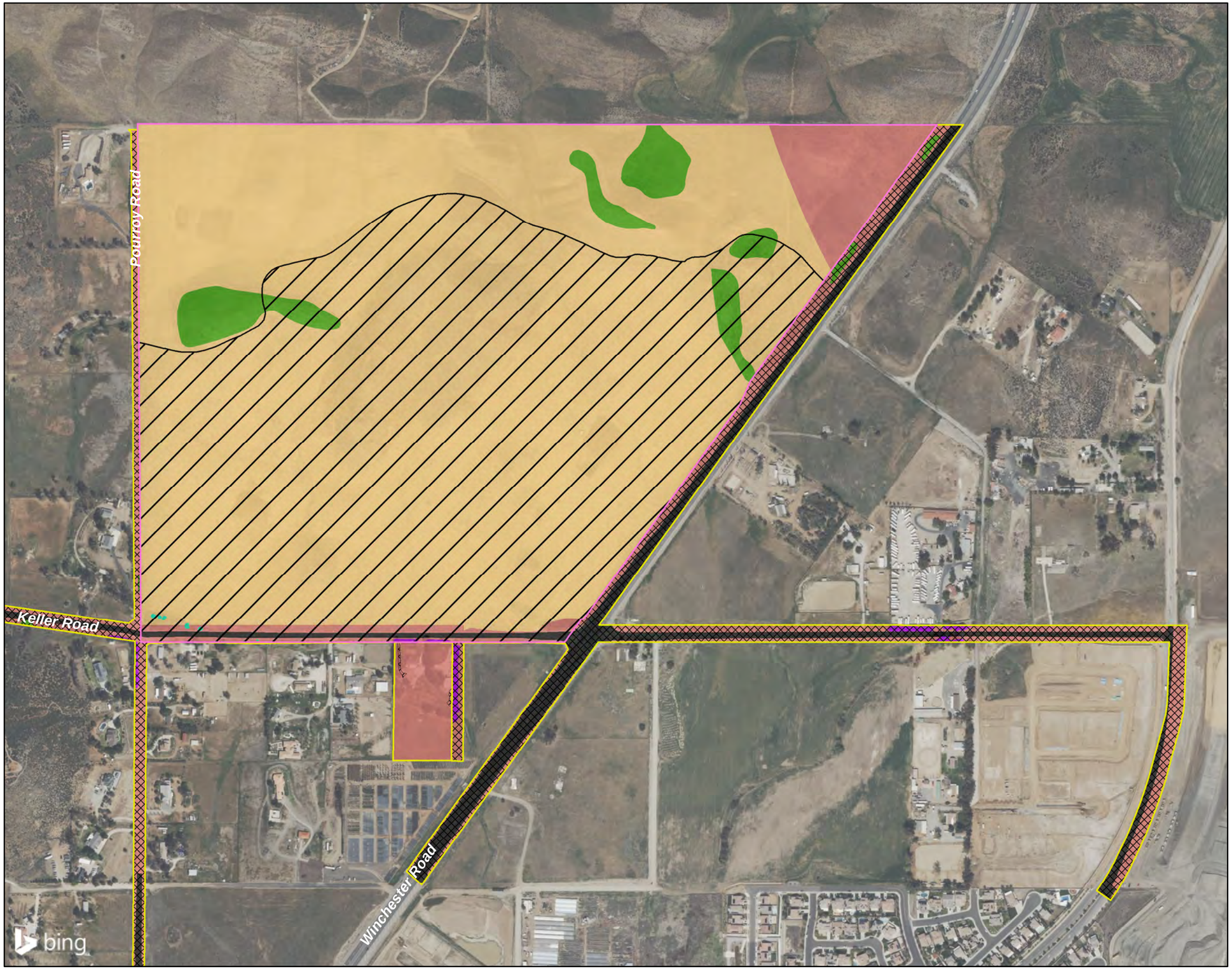

Onsite Project Site
Offsite Project Site
Onsite Project Footprint
Offsite Project Footprint
Agriculture
Disturbed Mulefat Scrub
Developed
Disturbed
Disturbed Buckwheat Scrub
Ornamental

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: July 20, 2022

KELLER CROSSING PROJECT

Vegetation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 1

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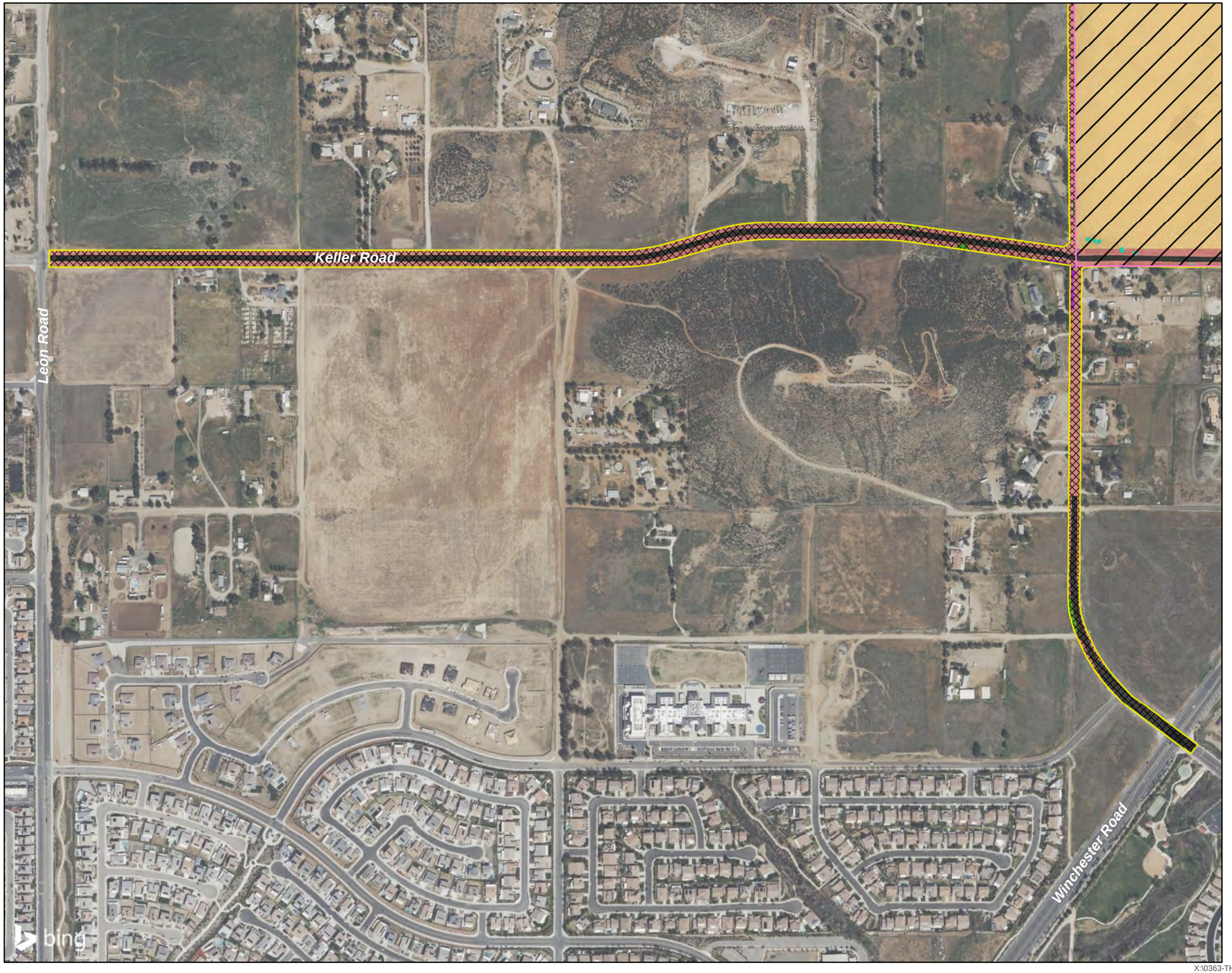

- Onsite Project Site
- Offsite Project Site
- Onsite Project Footprint
- Offsite Project Footprint
- Agriculture
- Disturbed Mulefat Scrub
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Ornamental

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: July 20, 2022

KELLER CROSSING PROJECT

Vegetation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 2

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- Onsite Project Footprint
- Offsite Project Footprint
- Developed
- Disturbed
- Disturbed Buckwheat 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: July 20, 2022

KELLER CROSSING PROJECT

Vegetation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 3

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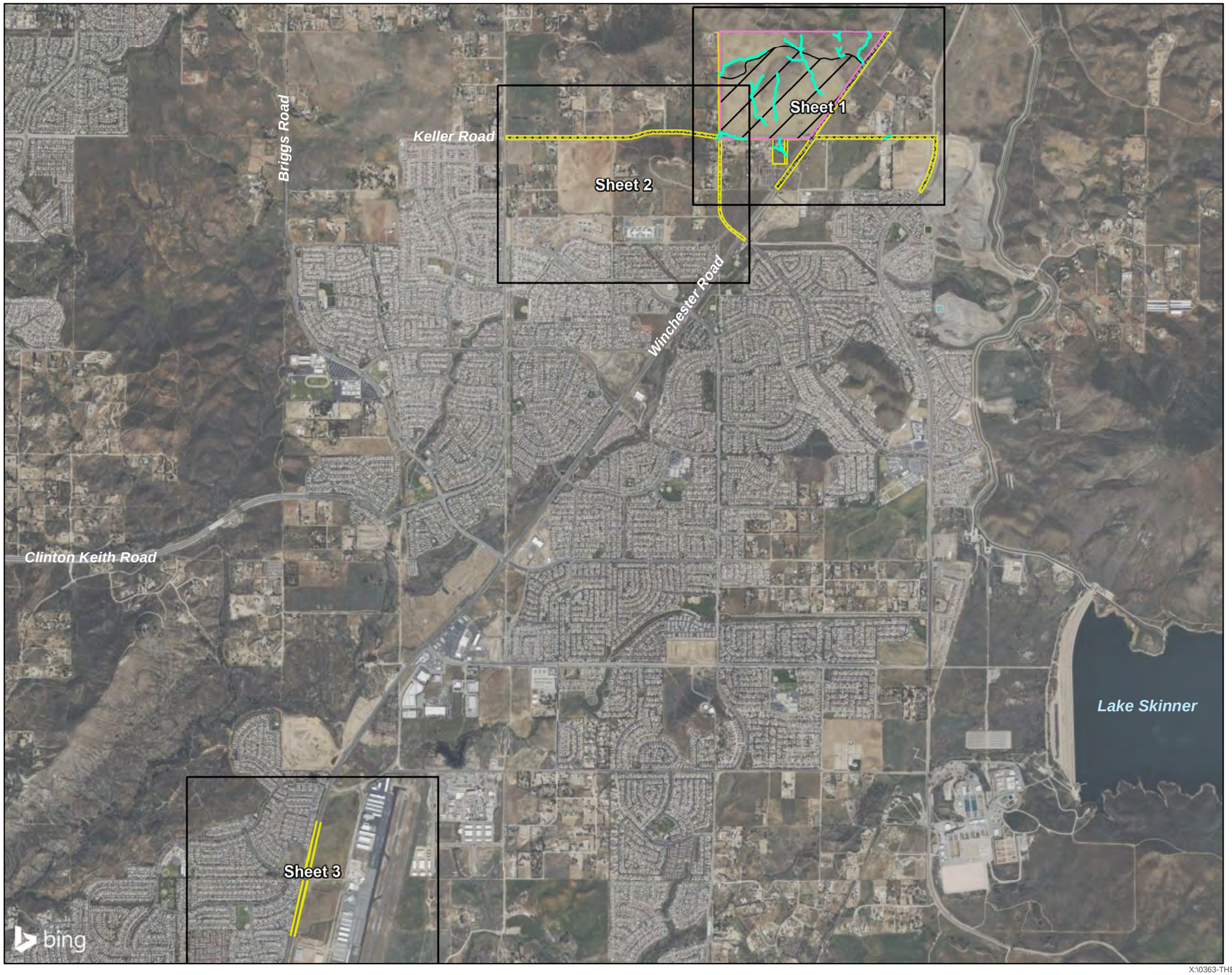

Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

Non-Wetland Waters of the State

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

RWQCB Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13A - Key Map

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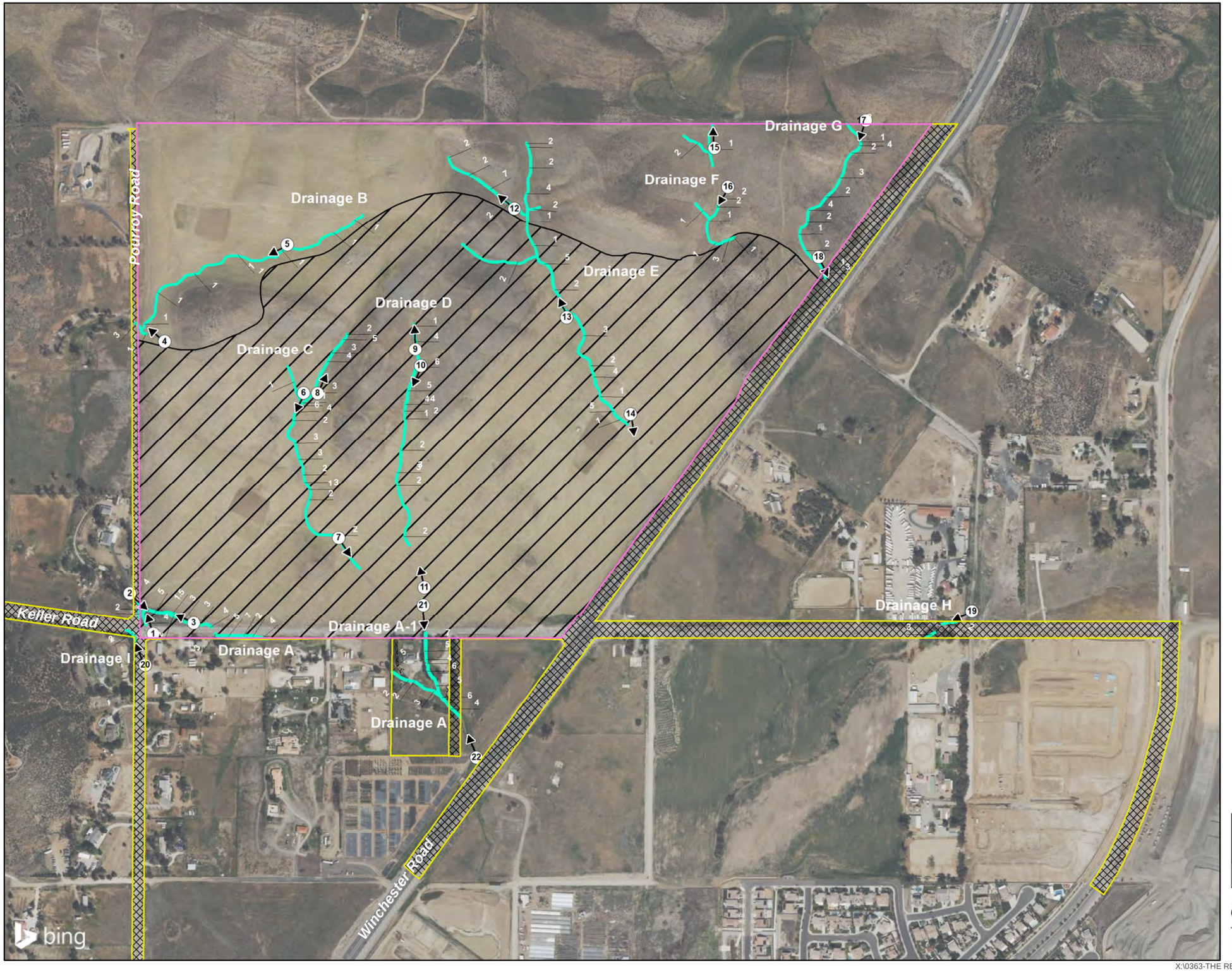

Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

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: July 20, 2022

KELLER CROSSING PROJECT

RWQCB Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13A - Sheet 1

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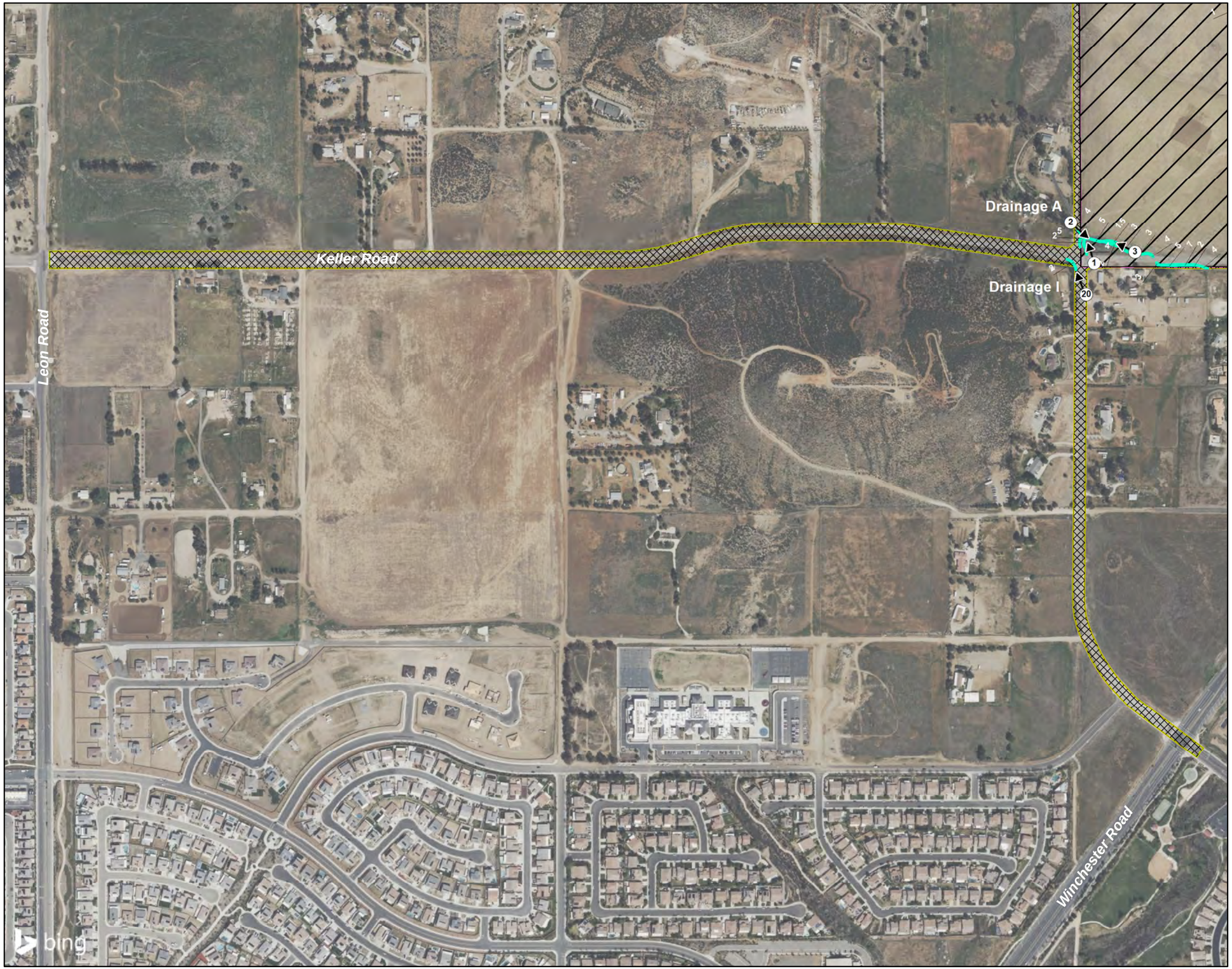

Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

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
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KELLER CROSSING PROJECT

RWQCB Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13A - Sheet 2

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Offsite Project Site

Offsite Project Footprint

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: July 20, 2022

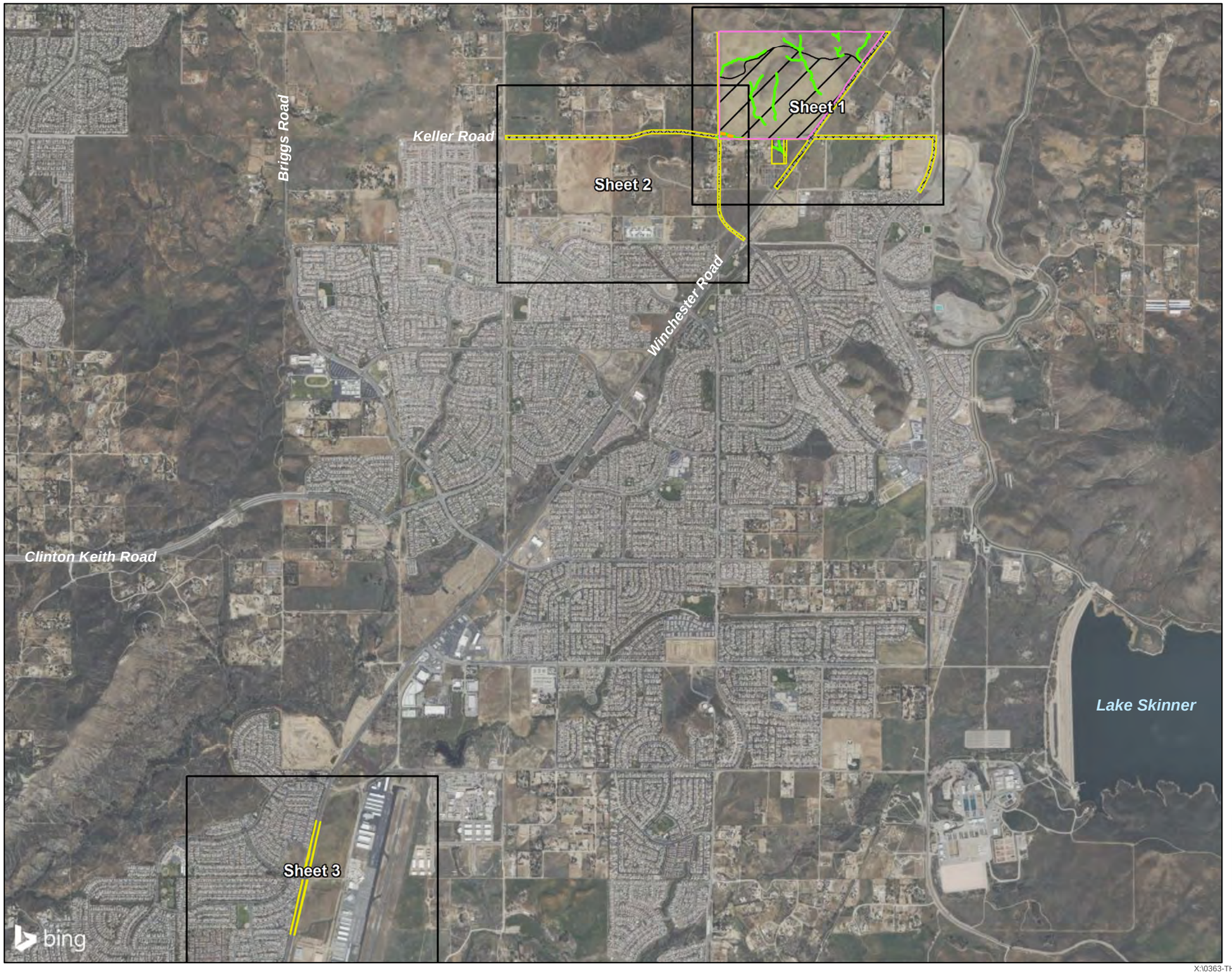
KELLER CROSSING PROJECT

RWQCB Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13A - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RWQCBImpacts_Sheet3.mxd



Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

CDFW Non-Riparian Stream

CDFW Riparian

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

KELLER CROSSING PROJECT

CDFW Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13B - Key Map

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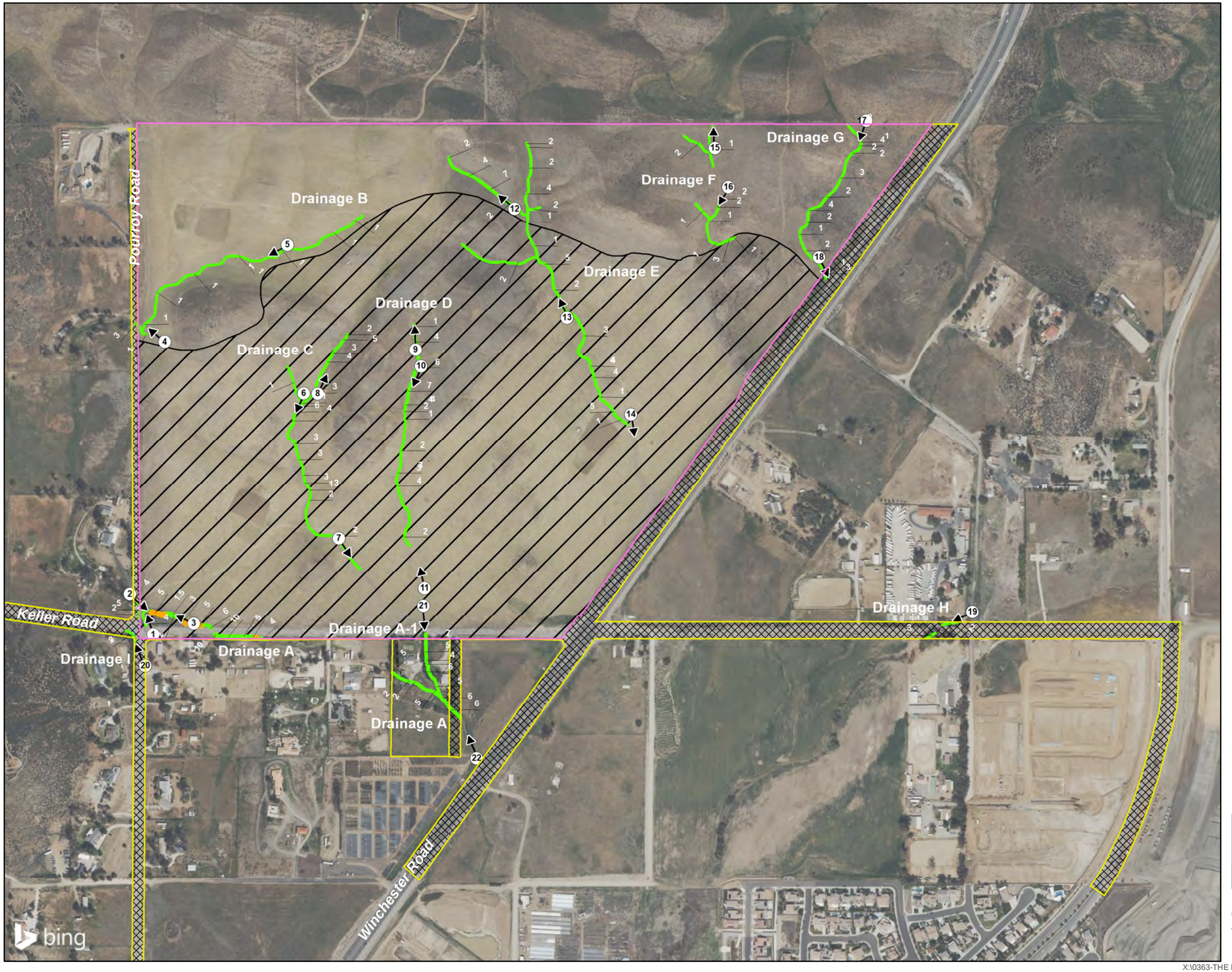

- Onsite Project Site
- Offsite Project Site
- Onsite Project Footprint
- Offsite Project Footprint
- CDFW Non-Riparian Stream
- CDFW Riparian
- Width of Non-Riparian Stream in Feet
- Photo Location

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: July 20, 2022

KELLER CROSSING PROJECT

CDFW Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13B - Sheet 1

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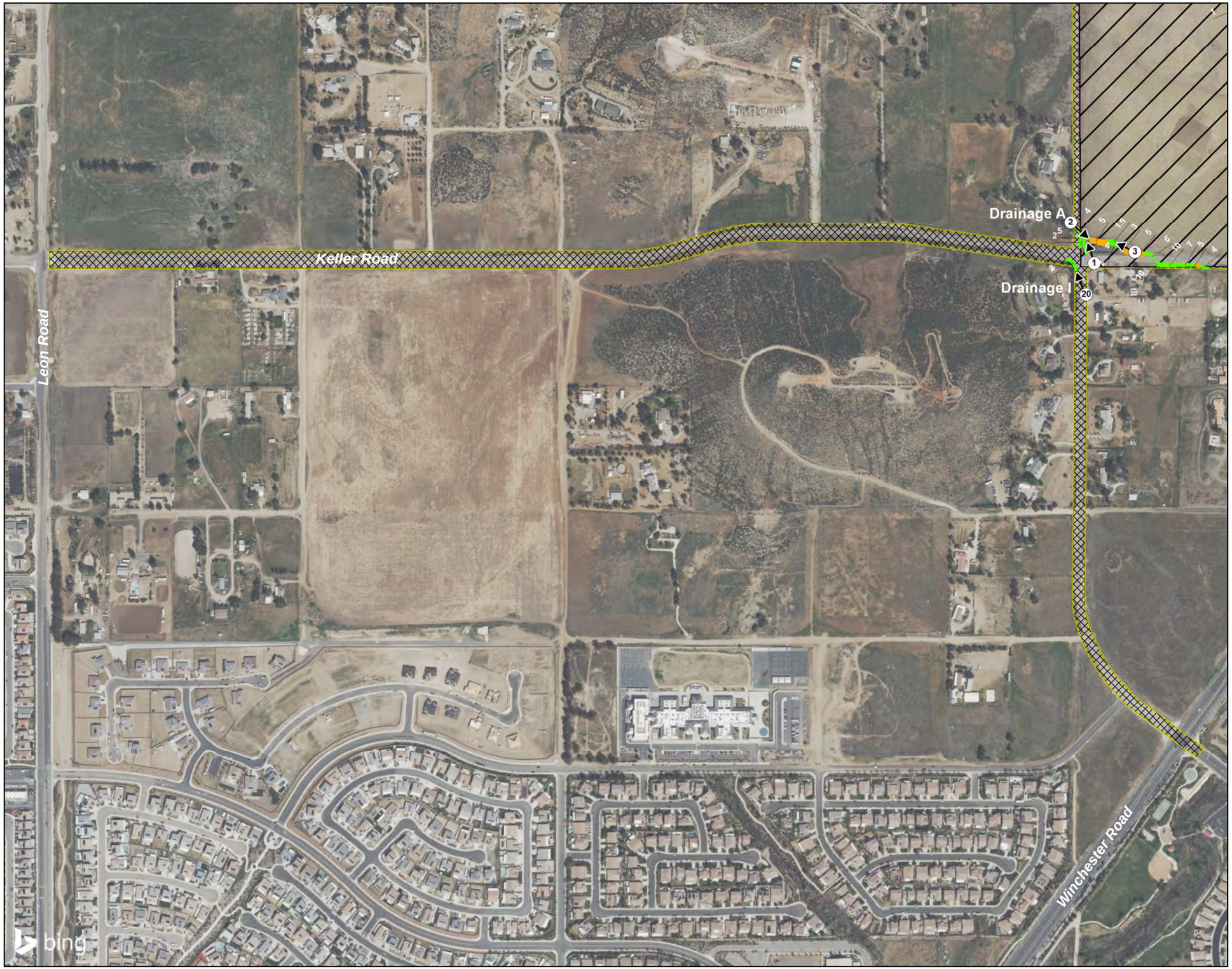


- Onsite Project Site
- Offsite Project Site
- Onsite Project Footprint
- Offsite Project Footprint
- CDFW Non-Riparian Stream
- CDFW Riparian
- Width of Non-Riparian Stream in Feet
- Photo Location

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: July 20, 2022

KELLER CROSSING PROJECT

CDFW Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13B - Sheet 2

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

Offsite Project Site

Offsite Project Footprint

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: July 20, 2022

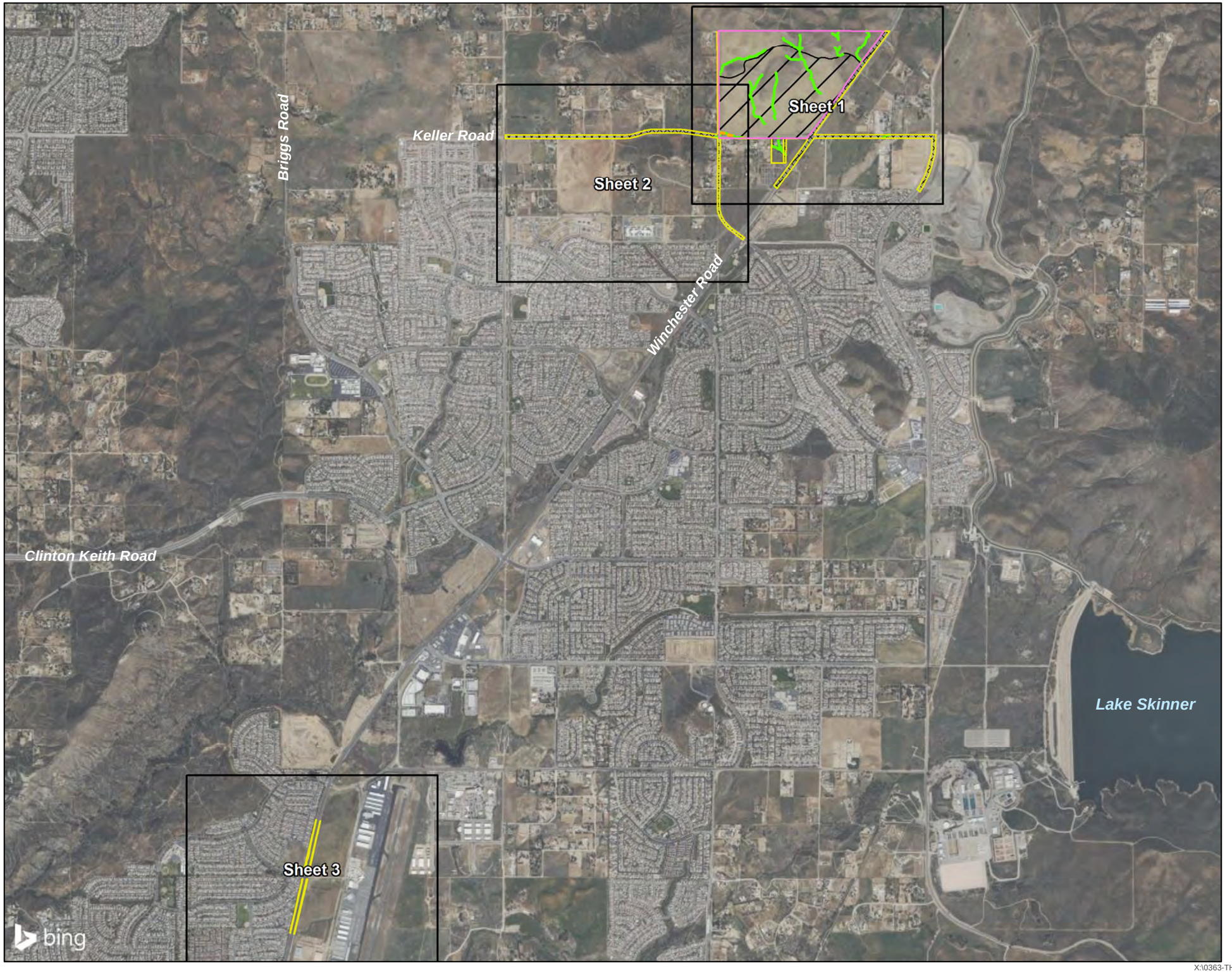
KELLER CROSSING PROJECT

CDFW Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13B - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_CDFWImpacts_Sheet3.mxd



Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

MSHCP Riverine

MSHCP Riparian

N

0 1,200 2,400 4,800

Feet

1 inch = 2,400 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: July 20, 2022

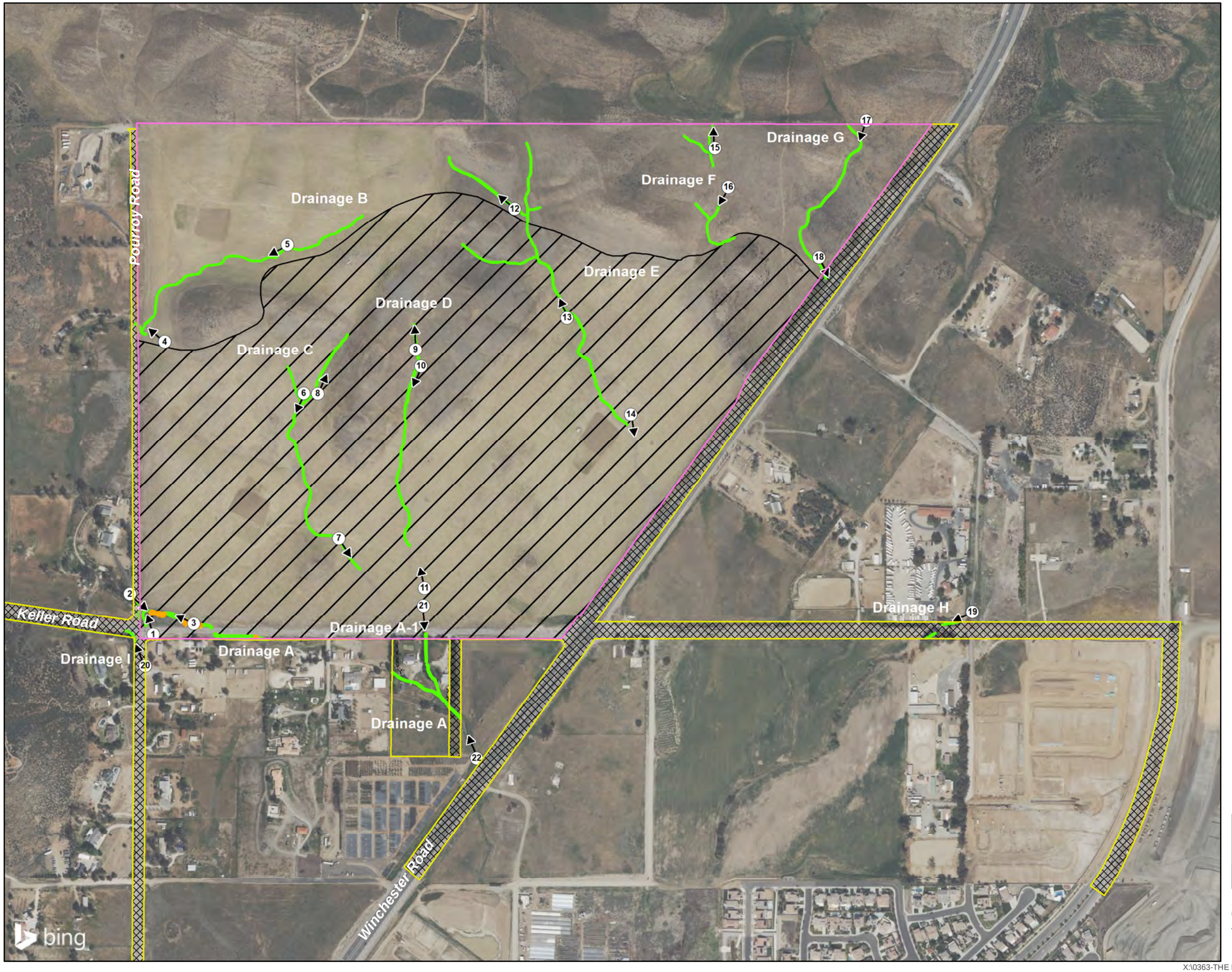
KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13C - Key Map

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



Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13C - Sheet 1

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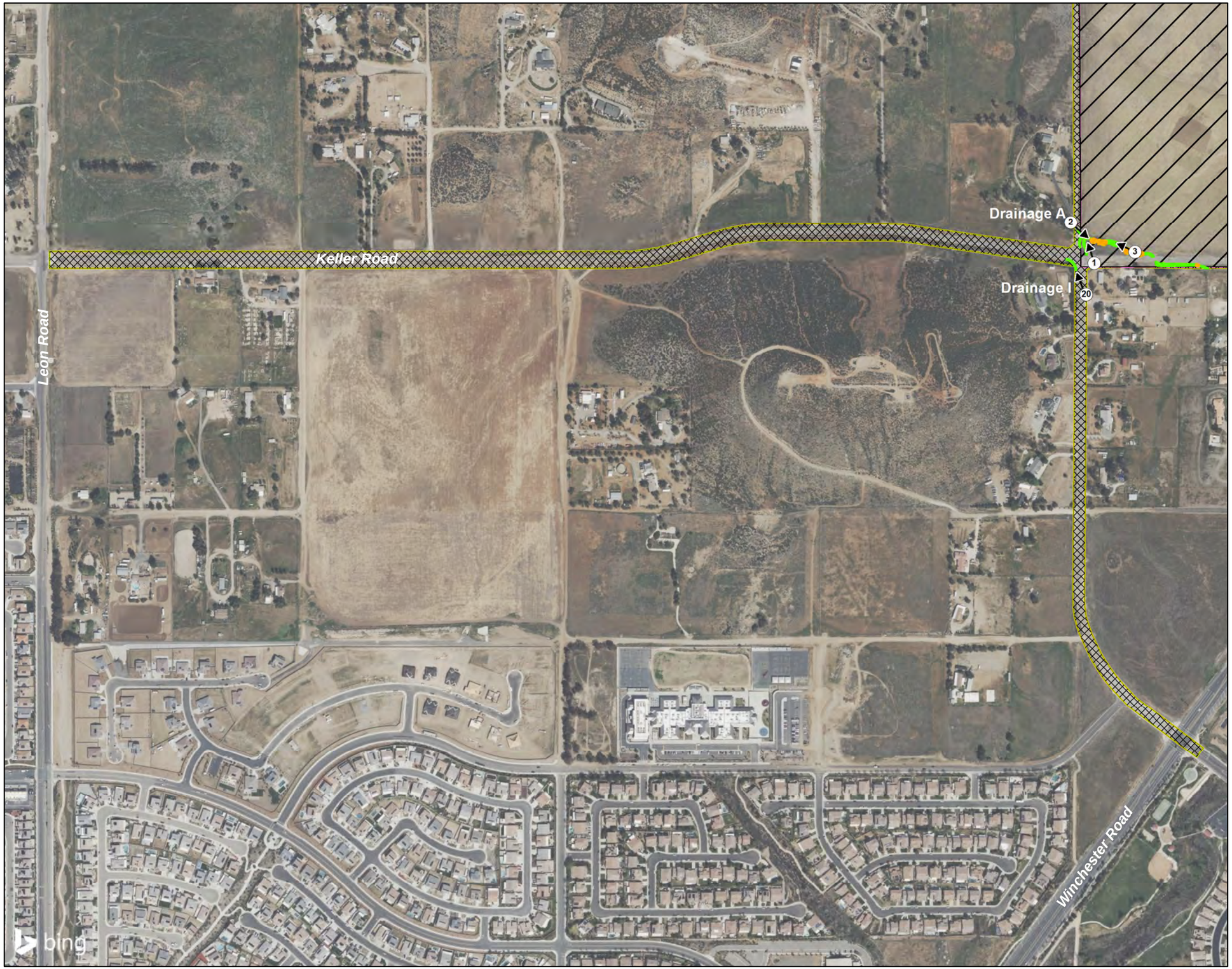

Onsite Project Site

Offsite Project Site

Onsite Project Footprint

Offsite Project Footprint

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13C - Sheet 2

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RipRivImpacts_Sheet2.mxd

Offsite Project Site

Offsite Project Footprint

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: July 20, 2022

KELLER CROSSING PROJECT

MSHCP Riparian/Riverine Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 13C - Sheet 3

X:\0363-THE REST\0446-162KELL\446-162_GIS\ImpactsGIS\446-162_RipRivImpacts_Sheet3.mxd

APPENDIX A
FLORAL COMPENDIUM

The floral compendium lists species identified on the project site. Taxonomy follows the Jepson Manual (Baldwin et al 2012) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory (Tibor 2001). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al (2004). An asterisk (*) denotes a non-native species. A cross (†) denotes special-status species

Scientific Name	Common Name
ANGIOSPERMOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONS	**MONOCOTS**
Poaceae	**Grass Family**
**Avena barbata*	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
Themidaceae	**Brodiaea Family**
Dichelostemma capitatum	Blue dicks
EUDICOTYLEDONS	**EUDICOTS**
Adoxaceae	**Muskroot Family**
Sambucus nigra ssp. *caerulea*	Blue elderberry
Asteraceae	**Sunflower Family**
Artemisia californica	Coastal sage brush
Baccharis salicifolia	Mulefat
**Centaurea melitensis*	Tocalote
Corethrogyne filaginifolia	Common sandaster
Deinandra fasciculata	Clustered tarweed

†*Deinandra paniculata*	Paniculate tarplant
Ericameria palmeri	Palmer goldenweed
Erigeron canadensis	Canada horseweed
**Hypochaeris glabra*	Smooth cat's ear
**Lactuca serriola*	Prickly lettuce
Lasthenia californica	Goldfields
* *Oncosiphon pilulifer*	Stinknet
Senecio vulgaris	Common groundsel
Uropappus lindleyi	Silver puffs
**Verbesina enceliodes*	Golden crown beard
**Xanthium spinosum*	Sparse cocklebur
Boraginaceae	**Borage Family**
Amsinckia menziesii	Fiddleneck
Pectocarya linearis	Sagebrush combseed
Phacelia minor	Wild canterbury bells
Brassicaceae	**Mustard Family**
**Brassica nigra*	Black mustard
**Capsella bursa-pastoris*	Shepherd's purse
**Hirschfeldia incana*	Summer mustard
Lepidium nitidum	Shining pepper grass
**Raphanus sativus*	Wild radish
**Sisymbrium irio*	London rocket
Cactaceae	**Cactus Family**
Cylindropuntia californica var. parkeri	Cane cholla
Chenopodiaceae	**Goosefoot Family**
**Salsola tragus*	Russian thistle
Cucurbitaceae	**Cucumber Family**
Marah macrocarpa	Wild cucumber
Euphorbiaceae	**Spurge Family**
Croton setiger	Doveweed
Euphorbia albomarginata	Rattlesnake sandmat
Fabaceae	**Pea Family**
Acmispon glaber	Deerweed
Acmispon strigosus	Strigose lotus
**Albizia julibrissin*	Silktree
Lupinus bicolor	Lupine

Lupinus sparsiflorus	Coulter's lupine
Lupinus succulentus	Arroyo lupine
**Melilotus indicus*	Annual yellow sweetclover
**Parkinsonia aculeata*	Palo verde
**Vicia villosa*	Hairy vetch
Geraniaceae	**Geranium Family**
**Erodium cicutarium*	Coastal heron's bill
Lamiaceae	**Mint Family**
Salvia columbariae	Chia sage
Trichostema lanceolatum	vinegar weed
Malvaceae	**Mallow Family**
**Malva parviflora*	Cheeseweed
Meliaceae	**Mahogany Family**
**Melia azedarach*	China berry tree
Myrtaceae	**Myrtle Family**
**Eucalyptus sp.*	Eucalyptus
Nyctaginaceae	**Four o'clock Family**
Mirabilis laevis	Desert wishbone bush
Onagraceae	**Evening Primrose Family**
Clarkia purpurea	Purple clarkia
Plantaginaceae	**Plantain Family**
Plantago erecta	California plantain
Polygonaceae	**Buckwheat Family**
Chorizanthe fimbriata	Fringed spineflower
Chorizanthe staticoides	Turkish rugging
Eriogonum fasciculatum	California buckwheat
Rubiaceae	**Madder Family**
Galium aparine	Common bedstraw
Salicaceae	**Willow Family**
Salix lasiolepis	*Salix lasiolepis*

Solanaceae	**Nightshade Family**
Datura wrightii	Jimsonweed
**Nicotiana glauca*	Tree tobacco
Tamaricaceae	**Tamarix Family**
**Tamarix ramosissima*	Tamarisk
Ulmaceae	**Elm Family**
**Ulmus parvifolia*	Siberian elm
Urticaceae	**Nettle Family**
Urtica dioica	Stinging nettle

GYMNOSPERMS

CONIFEROPHYTA — CONE-BEARING PLANTS

PINACEAE	**Pine Family**
* *Pinus pinea*	Italian stone pine

APPENDIX B
FAUNAL COMPENDIUM

The faunal compendium lists species identified on the Study Area. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (2009) for amphibians and reptiles, Bradley, et al. (2014) for mammals, and AOU Checklist (1998) for birds. An (*) denotes non-native species. A (†) denotes special-status species.

TERRESTRIAL INVERTEBRATES

GRYLLIDAE – TRUE CRICKETS
**Gryllodes sigillatus*
tropical house cricket

FORFICULIDAE - EARWIGS
Forficulidae sp.
earwig

LYCAENIDAE – GOSSAMER-WINGED BUTTERFLIES
Icaricia acmon
acmon blue

PIERIDAE - WHITES AND SULPHURS
**Pieris rapae*
cabbage white

POMPILIDAE - SPIDER WASPS
Pepsini sp.
tarantula hawk

SPARASSIDAE – GIANT CRAB SPIDERS
Sparassidae sp.
Huntsman spider

TENEBRIONIDAE – DARKLING BEETLES
Eleodes acuticauda
head-standing darkling beetle

TIPULIDAE – TRUE FIELS
Tipulidae sp.
cranefly

TERRESTRIAL VERTEBRATES

REPTILES

PHRYNOSOMATIDAE - PHRYNOSOMATID LIZARDS

Uta stansburiana
side-blotched lizard

SNAKES

COLUBRIDAE – COLUBRID SNAKES
Pituophis catenifer
gopher snake

VIPERIDAE – VENOMOUS SNAKES
Crotalus helleri
southern pacific rattlesnake

BIRDS

ACCIPITRIDAE – HAWKS AND OLD WORLD VULTURES
Buteo jamaicensis
red-tailed hawk
†*Circus cyaneus*
northern harrier

AEGITHALIDAE– BUSHTITS
Psaltriparus minimus
bushtit

ALAUDIDAE – LARKS
†*Eremophila alpestris actia*
California horned lark

ANATIDAE – DUCK, GEESE, AND WATERFOWLS
Branta canadensis
Canada goose

ARDEIDAE - HERONS AND BITTERNS
Ardea alba
great egret

CATHARTIDAE - NEW WORLD VULTURES
Cathartes aura
turkey vulture

CHARADRIIDAE - PLOVERS, DOTTERELS, AND LAPWINGS
Charadrius vociferus
killdeer

COLUMBIDAE - PIGEONS AND DOVES
**Columba livia*
rock pigeon
**Streptopelia decaocto*
Eurasian collared-dove
Zenaida macroura

mourning dove

CORVIDAE - JAYS AND CROWS

Aphelocoma californica
California scrub jay
Corvus brachyrhynchos
American crow
Corvus corax
common raven

EMBERIZIDAE – SPARROWS, BUNTINGS, WARBLERS, AND RELATIVES

Melospiza melodia
song sparrow
Passerculus sandwichensis
savannah sparrow
Pipilo maculatus
spotted towhee
Zonotrichia leucophrys
white-crowned sparrow

FALCONIDAE - FALCONS

Falco sparverius
American kestrel

FRINGILLIDAE - FINCHES

Carpodacus mexicanus
house finch
Carduelis psaltria
lesser goldfinch

HIRUNDINIDAE – SWALLOWS

Hirundo rustica
barn swallow
Petrochelidon pyrrhonota
cliff swallow

ICTERIDAE - BLACKBIRDS AND ORIOLES

Agelaius phoeniceus
red-winged blackbird
Icterus cucullatus
hooded oriole
Stelgidopteryx serripennis
northern rough-winged swallow
Sturnella neglecta
western meadowlark

MIMIDAE - THRASHERS

Mimus polyglottos
northern mockingbird

ODONTOPHORIDAE- NEW WORLD QUAILS

Callipepla californica
California quail

PASSERIDAE - TRUE SPARROWS
Passer domesticus
house sparrow
PASSERELLIDAE – NEW WORLD SPARROWS
Pooecetes gramineus
vesper sparrow

STRIGIDAE - TRUE OWLS
Tyto alba
barn owl

STURNIDAE - STARLINGS
**Sturnus vulgaris*
European starling

TROCHILIDAE - HUMMINGBIRDS
Calypte anna
Anna's hummingbird

TROGLODYTIDAE – WRENS
Thryomanes bewickii
Bewick's wren

TYRANNIDAE - TYRANT FLYCATCHERS
Sayornis nigricans
Black phoebe
Sayornis saya
Say's phoebe
Tyrranis vociferans
Cassin's kingbird

MAMMALS

BOVIDAE – HOOFED MAMMALS
Ovis aries
domestic sheep

CANIDAE - FOXES, WOLVES, AND ALLIES
**Canis familiaris*
domestic dog

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

SCIURIIDAE - SQUIRRELS

Otospermophilus beecheyi

California ground squirrel