BIOLOGICAL TECHNICAL REPORT
FOR
THE STONERIDGE COMMERCE CENTER PROJECT

August 2023

U.S. Geological Survey 7.5-Minute
Perris and Romoland Quadrangles
San Bernadino Meridian, Riverside County, California

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Certification

The undersigned certify - under penalty of law, that they have personally examined and are familiar with the information submitted in this document and all appendices and that, based on an inquiry of those individuals immediately responsible for obtaining the information, believe that the information is true, accurate, and complete. The undersigned are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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1.0 INTRODUCTION / SUMMARY

This document provides the results of general and focused biological surveys for the Stoneridge Commerce Center Project located near the City of Perris in unincorporated Riverside County, California (Appendix A, Figure 1). The County of Riverside is the Lead Agency for the Stoneridge Commerce Center Project (Project), and Richland Developers, Inc. (Richland) is the Project Applicant (Applicant). The report addresses existing conditions within three distinct Project Components, the Project Footprint, Offsite, and Conservation areas. The Project includes a disturbance footprint (Project Footprint), off-site roadway improvements (Offsite), and conservation (Conservation) (Appendix A, Figure 2). For decades, the majority of Project Components have been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

To that end, 98% of the Project Footprint, 98% of the Offsite, and 60% of the Conservation aeras are characterized as *Anthropogenic Biomes*. *Anthropogenic Biomes* are ecosystems that have been significantly altered by human activities. This includes everything from agricultural lands shaped by farming practices, developed lands transformed by urbanization and construction, to areas dominated by non-native species due to human influence, and ruderal habitats colonizing lands disturbed by human activities. As a result of the Project's disturbed land cover, it has diminished value as suitable breeding, nesting and foraging habitat for native and special status species as well. Although the Project is large in total size – it has very low species richness and diversity, and lacks high quality breeding and refuge habitats for special status species. This is to be expected as a result of the significant ground disturbance (i.e., grading, disking, tilling and deep ripping, weed abatement, fire suppression, and livestock grazing) associated with crop cultivation, and numerous other human related undertakings that have occurred over the past quarter of a century.

Nonetheless, 40% of the Conservation area has been determined to include *Xerophytic Communities*, or land cover types which represent unique habitats for various native plant and animal species; many of which are specialized to survive in the southwestern United States, specifically in Southern California. As such, the following special-status plants were detected within the Conservation areas: Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) (California Rare Plant Rank [CRPR] 1B.1); San Jacinto Valley crownscale (*Atriplex coronata var. notatior)* (Federally Endangered [FE], CRPR 1B.1); smooth tarplant (*Centromadia pungens ssp. Laevis*) (CRPR 1B.1); and spreading navarretia (*Navarretia fossalis*) (Federally-Threatened [FT], CRPR 1B.1). However, there will be no Project impacts to these species, as the Project has been deliberately designed to avoid and conserve the areas where these special-status plants occur. These lands – identified and labeled as the Project's, Conservation areas throughout this document and its appendices, are expected to be dedicated to the Western Riverside County Regional Conservation Authority (RCA) for long-term management. Additionally, no special status plants were identified within the Project Footprint, or the Offsite areas.

The following special-status animals were detected within the Project Footprint, and Conservation areas: ferruginous hawk (*Buteo regalis*, CDFW- Species of Special Concern [SSC]); northern harrier (*Circus cyaneus*, CDFW-SSC); white-tailed kite (*Elanus leucurus* CDFW-Fully Protected [FP]); loggerhead shrike (*Lanius ludovicianus*, CDFW-SSC); LAPM (*Perognathus longimembris brevinasus*, CDFW-SSC); northwestern San Diego pocket mouse (*Chaetodipus fallax*, CDFW-SSC); San Diego desert woodrat (*Neotoma lepida intermedia*, CDFW-SSC); Stephens' kangaroo rat (*Dipodomys stephensi*, State Threatened

[ST], FE); and San Diego blacktailed jackrabbit (*Lepus californicus sandiogensis*, CDFW-SSC). No special-status animals were detected within the Offsite areas.

But it is worth noting that of the four special-status (non-listed) bird species known to occur within the Project Footprint and Conservation areas, the northern harrier and loggerhead shrike are not expected to nest within areas that will be directly impacted by the Project. Five special-status small mammal species are known to occur within the Project Footprint and Conservation areas as well. But these mammalian species were distributed along the Project's dirt roads, development boundaries, and away from the active agricultural fields. Typically, fossorial mammals do not currently occur within highly impacted agricultural fields. Densities within the Project Footprint and Conservation areas occupied small mammal habitats suggest that these species occur sporadically in the area, and in trace densities. The aforementioned road network within the Project Footprint and Conservation areas, might allow for some marginal connectivity to other potential and documented small mammal habitats in the region – albeit tenuous. Therefore, the small mammal population within the Project Footprint is considered minor, limited in area of distribution, relatively isolated and of limited value. The animals within the Conserved areas will not be impacted by Project development; and movement of animals within the Project Footprint will not be affected by Project implementation.

Furthermore, development will result in impacts to United States Army Corps of Engineers (USACE) jurisdiction pursuant to Clean Water Act (CWA) Section 404, Regional Board jurisdiction under Section 401 of the CWA and Section 13260 of the California Water Code (CWC), California Department of Fish and Wildlife (CDFW) jurisdiction pursuant Section 1600 of the California Fish and Game Code, and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) riparian/riverine areas. But based on the 2021 Hydrology Analysis by Hunsaker & Associates, the drainage patterns associated with the Project transporting flows toward the San Jacinto River that occur under existing conditions, will be unchanged by Project implementation (Hunsaker & Associates 2021). Furthermore, portions of the Offsite and Conservation areas lie partially - or completely, within USFWS Designated Critical Habitat for spreading navarretia.

1.1 Project Location & Project Description

The County of Riverside is the Lead Agency for the Project, and Richland is the Applicant. The fundamental purpose and goal of the Project is to accomplish the orderly development of light industrial, business park, and commercial retail land uses to increase employment opportunities in a housing rich portion of unincorporated Riverside County. The Project Footprint and Conservation areas are in unincorporated Riverside County, California (Appendix A, Figure 1). The Project's off-site roadway improvements (Offsite) are predominately within the existing paved portion of roadways, other than the small expansion of roadway to accommodate a lift station (or pump station that uses a collection system to move material from a lower to a higher elevation), and various discrete intersection modifications to address the use of the area by truck traffic (Appendix A, Figure 2).

1.2 Relationship of the Project with the Western Riverside Multiple Species Habitat Conservation Plan

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

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project-specific survey / conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA. The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered "adequately conserved". A number of these species have survey requirements based on a project's occurrence within a designated MSHCP Survey Area and / or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP Volume I, Section 6.1.3), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP Volume I, Section 6.3.2) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by Survey Areas (MSHCP Volume I, Section 6.3.2); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, 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 (PQP) Lands, and approximately 153,000 acres of Additional Reserve Lands targeted within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into Subunits, and further divided into Criteria Cells and Cell Groups (a group of criteria cells). Each Cell Group and ungrouped, independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if lands are targeted for inclusion in the MSHCP Reserve. In addition, all Projects located within the Criteria Area are subject to the Joint Project Review (JPR) process, where the Project is reviewed by the Regional Conservation Authority (RCA) to determine overall compliance/consistency with the biological requirements of the MSHCP.

To that end, the Project Footprint and Conservation areas are located within the Lakeview / Nuevo Area Plan of the MSHCP. Specifically, the Project Footprint and Conservation areas fall partially - or completely, within portions of Criteria Cells: 2442, 2547, 2651,2762 (Appendix A, Figure 3). The Project Footprint and Conservation areas are located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), Narrow Endemic Plant Species Survey Area (NEPSSA), Mammal Survey Area for the Los Angeles pocket mouse (LAPM), and Burrowing Owl (*Athene cunicularia*) Survey Area (Appendix A, Figure 5). Pursuant to the MSHCP, CAPSSA and NEPSSA 3 target species must be evaluated through habitat assessments and focused surveys - if suitable habitat is present. The Project Footprint and Conservation areas are not located within the MSHCP Amphibian Survey Area, Delhi Sands Flower-loving Fly Survey Area or Core and Linkage areas. It is worth noting, that development of the Project Footprint was previously determined to be consistent with the MSHCP as part of JPR 06-08-18-01, dated September 15, 2006. This JRP required the conservation of 80 acres of land along the San Jacinto River as part of the project. A HANS determination letter, HANS 269, was also approved for the Project, dated September 18, 2006. This letter determined that the RCA concurred with the conservation documented in the JPR. It is expected that amendments to the HANS and JPR may be needed to cover the Project's proposed off-site roadway and utility improvements (Offsite). A copy of the HANS determination letter is attached as Appendix B, in addition to the JPR approval letter.

A majority of the Offsite areas are located predominately within existing roadway right-of-way for City General Plan Roads, covered under the MSHCP. Portions of the Offsite areas are located within the Lakeview/Nuevo Area Plan, Reche Canyon/Badlands Area Plan, Mead Valley Area Plan and Harvest Valley/Winchester Area Plan of the MSHCP. Specifically, some of the Offsite areas fall partially - or completely, within portions of Criteria Cells: 2762, 2865, 2863, 2761, 2760, 2969, 2970, 3069 and 3070 (Appendix A, Figure 3). Portions of the Offsite areas are also located within the CAPSSA, NEPSSA, Mammal Survey Area for the LAPM, and Burrowing Owl Survey Area (Appendix A, Figure 5). Pursuant to the MSHCP, CAPSSA, NEPSSA 3 and 9 target species must be evaluated through habitat assessments and focused surveys - if suitable habitat is present-. The Project site is not located within the MSHCP Amphibian Survey Area, Delhi Sands Flower-loving Fly Survey Area or Core and Linkage areas (Appendix A, Figure 4).

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 to demonstrate consistency with the MSHCP.

2.0 METHODS

Initial literature reviews were performed in 2019, and again in 2023. The purpose of the literature reviews was to evaluate whether special status species (or their habitats), sensitive natural communities, and/or regulated wetlands and other surface waters were likely to occur, or were known to occur, within the Project Footprint, Offsite, and Conservation areas. The literature review consisted of contacting local resource specialists, reviewing publicly available data from a variety of public agencies, geospatial data warehouses, and previously written reports related to the Project to safeguard that current and accurate data were integrated into the review.

Pertinent sources reviewed included, but were not limited to the following:

- Biological Technical Report for Stoneridge Commerce Center. (GLA 2022a);
- Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. (GLA 2022);
- US Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2023a);
- USFWS Riverside County Field Office Species List (USFWS 2023b);
- USFWS National Wetlands Inventory database (USFWS 2023c);
- Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021 (Hunsaker & Associates. 2021).
- Regional South Coast Missing Linkages Project Report (South Coast Wildlands 2008);
- California Natural Diversity Database maintained by the California Department of Fish and Wildlife (CDFW) (CDFW 2023);
- Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO) (USDA-NRCS 2023);
- California Native Plant Society (CNPS) Electronic Inventory (CNPS 2023);
- MSHCP Transportation and Land Management Agency Geographic Information Services Database (GISD 2023);
- Regional Conservation Authority GIS Data Mapping Tool (RCA 2032, https://www.wrc-rca.org/rcamaps/);
- Western Riverside County Multiple Species Habitat Conservation Plan (Dudek 2003); and
- Aerial Photographs (Microsoft Corporation 2023).

To support the analysis detailed above, pedestrian-based field surveys were performed to assess land cover, general and dominant vegetation communities, habitat types, and species present within communities. Community descriptions were based on observed dominant vegetation composition, and derived from the criteria and definitions of widely accepted vegetation classification systems (Holland 1986 and Sawyer et al. 2009).

Plants were identified to the lowest taxonomic level sufficient to determine whether the species observed were non-native, native, or special-status. Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded according to Baldwin et al. (2012). The presence of a wildlife species was based on direct observation and/or detection of wildlife sign (e.g., tracks, burrows, nests, scat, skeletal remains or vocalization). Field data compiled for wildlife species included scientific name, and common name. Wildlife of uncertain identity were documented and subsequently identified from specialized field guides and related literature (Burt and Grossenheider 1980; Halfpenny 2000; Sibley 2000; Elbroch 2003 and Stebbins 2003).

Additionally, the Project Footprint, Offsite, and Conservation areas were assessed for their unique potential to support special-status species based on habitat[1] suitability comparisons with reported occupied habitats (Appendix C). The following potential for occurrence definitions were utilized within Appendix C:

- ✓ Absent [A] – Species distribution is restricted by substantive habitat requirements which do not occur – or are negligible[2] within the Project Footprint, Offsite or Conservation areas, and no further survey or study is necessary to determine likely presence or absence of this species.
- ✓ Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements which occur within the Project Footprint, Offsite or Conservation areas and further study may be necessary to determine likely presence or absence of species.
- ✓ Present [P] – Species or species sign were observed within the Project Footprint, Offsite or Conservation areas, or historically has been documented within Project limits.
- ✓ Critical Habitat [CH] – The Project Footprint, Offsite or Conservation areas is located within a USFWS-designated critical habitat unit.

2.1 Focused Surveys

As a result of literature reviews and general biological surveys, additional targeted census activities were performed for Burrowing Owl, Criteria Area Plant Species, Narrow Endemic Plant Species and for the LAPM.

2.1.1 Burrowing Owl

Survey methods for Burrowing Owl were derived from generally accepted professional standards, including – but not limited to, the 1993 California Burrowing Owl Consortium Survey Protocol and Mitigation Guidelines (CBOC 1993), the 1995, 2012 California Department of Fish and Game Staff Reports on Burrowing Owl Mitigation (CDFG 1995 and 2012) and the *2006 Western Riverside County MSHCP Burrowing Owl Survey Instructions*. Please note that Burrowing Owls are of limited distribution - or occur infrequently throughout California, and their status is therefore monitored by resource agencies[3]. But the Burrowing Owl is not a Federal and/or State listed species.

A Burrowing Owl habitat suitability assessment and burrow survey was conducted in accordance with the March 29, 2006 Western Riverside County MSHCP Burrowing Owl Survey Instructions. Natural and non-natural substrates were examined for potential burrow sites and complexes. Potential burrows encountered were examined for shape, size, molted feathers, whitewash, cast pellets and/or prey remains. Disturbance characteristics and other animal sign encountered within the Project Footprint, Offsite and Conservation area were documented, to the greatest extent practical.

Since suitable habitat was observed for Burrowing Owls within the Project Footprint, Offsite and Conservation area, surveys were performed on 12, 15, 16, 19, 20, 21, 22, 23, and 26 August 2019, 14 May 2020, 11 and 25 June 2020, and 8 July 2020, 06 and 21 April 2021, 6 and 12 May 2021, 14 and 27 April, 14 May, and 9 June, 2023. A hand-held, global positioning system (GPS) unit with sub meter accuracy was

[1] A “habitat” is defined as the place or type of locale where a plant or animal naturally or normally lives and grows.

[2] In this instance, negligible is a reference to a numeric value being “mathematically insignificant," or a result that is not statistically significant. The typical threshold for statistical significance is less than 5%. In a broader context, "negligible" is used to describe a value that is so small relative to other values in the analysis, that it can be dismissed without noticeably affecting the outcome.

[3] This species could be important locally with deference to preparation of environmental documents relating to the California Environmental Quality Act (CEQA) - based on CEQA Guidelines §15125 (c), and/or §15380.

used to survey predetermined transects that were prepared within a Geographic Information System prior to the start of owl surveys. Survey transects were spaced at appropriate intervals to allow for complete visual coverage of the Project Footprint, Offsite, Conservation areas, and a 500 ft buffer – to the greatest extent practical. Where necessary, transect spacing was reduced or expanded in the field - to account for differences in terrain, vegetation density, visibility, health and safety, and access (i.e., private property) considerations. Where access was limited, observations were made from the nearest appropriate vantage points by means of public rights-of-way with the use of binoculars and spotting scopes. The presence of a species was based on direct observations of individual(s), sign, and/or vocalization. Avian scientific nomenclature and common names follows Sibley (2000). Field surveys were conducted when weather conditions were conducive to observing birds. Surveys were not performed during rain, extreme temperatures, high winds (> 25 miles per hour), or dense fog. Surveys were performed when weather conditions were conducive to observing owls outside of burrows.

2.1.2 Criteria Area Plant Species and Narrow Endemic Plant Species

Field surveys for MSHCP Criteria Area Plant Species and Narrow Endemic Plant Species were also performed. Plant survey methods were derived from the standardized guidelines issued by the U.S. Fish and Wildlife Service (USFWS 2000), California Department of Fish and Wildlife (CDFW 2009) and the California Native Plant Society (CNPS 2001). The field surveys were specifically conducted to determine the presence/absence of MSHCP Criteria Area Plant Species and Narrow Endemic Plant Species, but the surveys were floristic[4] in nature.

The Project Footprint and Conservation areas are located within the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), and Narrow Endemic Plant Species Survey Area (NEPSSA) (Appendix A, Figure 5). Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): San Jacinto Valley crownscale, Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana var. davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant, Coulter's goldfields, little mousetail (*Myosurus minimus* ssp. apus), and mud nama (*Nama stenocarpa*). The Project Footprint and Conservation areas also occur within or portions of NEPSSA 3. Therefore, 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, California orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii var. wrightii*).

Similarly, portions of the Offsite areas are located within the CAPSSA, and NEPSSA as well (Appendix A, Figure 5). Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys - if suitable habitat is present: San Jacinto Valley crownscale, Parish's brittlescale, Davidson's saltscale, threadleaved brodiaea, round-leaved filaree, smooth tarplant, Coulter's goldfields, little mousetail, and mud nama. Additionally, the Offsite areas also occurs within or portions of NEPSSA 3 and 9. 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, San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya, spreading navarretia, California orcutt grass, Wright's trichocoronis, Hammitt's clay cress (*Sibarpsis hammittii*), many-stemmed dudleya, and San Miguel savory (*Clinopodium chandleri).*

[4] Focused on the distribution, number, types, and relationships of plant species in an area or areas.

Therefore, surveys were conducted during the appropriate blooming period for the targeted MSHCP species. As such, plants were identified to the lowest taxonomic[5] level sufficient to determine whether the species detected were non-native, native, or special-status. Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded according to The Jepson Manual (Baldwin et al. 2012).

Habitat assessments and focused botanical surveys were conducted within the Project Footprint, Offsite and Conservation areas, on 26 March, 25 April, 28 May, 5 and 27 June 2019, 3 March and 7 April 2020, 21 April 2021, and 14, 27 April 2023. Field survey methods were derived from the standardized guidelines issued by the U.S. Fish and Wildlife Service (USFWS 2000), California Department of Fish and Wildlife (CDFW 2009) and the California Native Plant Society (CNPS 2001).

An evaluation of reference populations was also performed prior to initiating surveys to safeguard that survey timing was appropriate[6], and to assess local variations in plant phenology[7]. To that end, a targeted and methodical pedestrian-survey for MSHCP Criteria Area Plant Species and Narrow Endemic Plant Species was conducted by walking through areas of suitable habitat within the Project Footprint, Offsite and Conservation areas. Survey transect[8] spacing was reduced or expanded in the field to account for differences in terrain, vegetation density, visual field, health and safety considerations, access issues, and areas of potential habitat to provide adequate visibility.

2.1.3 Los Angeles pocket mouse

Portions of the Project Footprint, Offsite and Conservation areas, are located within the MSHCP Mammal Survey Area for the LAPM. As such, habitat assessments and focused surveys for the LAPM were performed in accordance with the MSHCP survey guidelines. The guidelines stipulate that a qualified biologist with a Memorandum of Understanding (MOU) with CDFW will perform a habitat assessment to determine the distribution of suitable habitat for LAPM. Within suitable habitat, a live-trapping program. Based on the limits of suitable habitat, the live-trapping program was implemented within the Project Footprint and Conservation areas on 28, 29 and 30 June, and 1, 2, 3, 4 and 5 July 2020. Detailed LAPM habitat assessment and survey methods, results, and assumptions are presented within Appendix D.

2.1.4 Evaluation of Wetlands and Waterways

Based on the aforementioned review of commercially available literature and habitat assessments, the presence and/or absence of surface water conveyance features, riparian plant communities, riverine land cover types and wetlands - including vernal pools, was evaluated within the Project Footprint, Offsite and Conservation areas. The Project Components were evaluated via field surveys on November 2019, September 2020, April 2021, January, June and July, 2023 for the presence of riverine/riparian and vernal pool areas, and jurisdictional waters (i.e., waters as regulated by the United States Army Corps of Engineers [USACE] and Regional Water Quality Control Board [RWQCB], streambeds and associated riparian habitat as regulated by the CDFW, and those resources defined under Section 6.1.2 of the MSHCP for Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools).

[5] Botanical taxonomy is the practice and science of categorization or classification. A taxonomy (or taxonomical classification) is a scheme of classification, especially a hierarchical classification, in which plants are organized into groups or types.

[6] Prior to field surveys, a botanist visited a representative number of reference populations to safeguard that survey timing was appropriate and to assess local variations in plant phenology. Reference populations were visited for both species that have a potential to occur.

[7] Phenology is the study of periodic events in biological life cycles and how these are influenced by seasonal and interannual variations in climate, as well as habitat factors.

[8] A transect is a path along which one counts and records occurrences of the objects of study.

This evaluation was completed using data acquired from current and historic imagery, hydrologic databases, analytic tools, and physical on the ground analyses/measurements by subject matter experts. Historic and current aerial photography of the Project Components were reviewed, prior to and during the field assessments. Aerial photography was informative with deference to the state and function of land resources in both the present, and historic context. As, inundation and vegetative signatures on aerial images can imply the presence - or absence, of waters, or a stream system within a discrete location.

The U.S. Environmental Protection Agency (EPA) WATERS GeoViewer tool also provided access to spatial data sets - such as interactive Upstream/Downstream search capabilities, and interactive Watershed Delineation, to assist in determining the jurisdictional status of resources detected within the region (epa.maps.arcgis.com/apps/webappviewer). Additionally, the Federal Emergency Management Agency (FEMA) flood zone was reviewed, in addition to the National Wetland Inventory (NWI, Appendix A, Figure 11) – which is maintained by the U.S. Fish and Wildlife Service (USFWS). This was done to support with the identification of potential aquatic resources within the Project Footprint, Offsite and Conservation areas.

Detailed delineation methods, results, and assumptions are presented within Appendix E1 and E2.

3.0 RESULTS

This section provides the results of literature review, general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a delineation for Waters of the State (WoS), Waters of the United States (WoUS) -including wetlands subject to the jurisdiction of the USACE, Regional Board, and CDFW. Representative photos of the Project Footprint, Offsite and Conservation areas are provided in Appendix F.

The Project predominantly occur between the Ramona Expressway to the north and Nuevo Road to the south; the San Jacinto River, River Park Mitigation Bank, and agricultural land occur to the east; and undeveloped land occurs to the west, with existing residential developments beyond. Furthermore, the drainage patterns associated with the Project transporting flows toward the San Jacinto River that occur under existing conditions, will be unchanged by Project implementation (Hunsaker & Associates 2021). Dating back to the 1960s, the majority of the Project Components have been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

To that end, 98% of the Project Footprint, 98% of the Offsite, and 60% of the Conservations aeras are characterized as *Anthropogenic Biomes*. *Anthropogenic Biomes* are ecosystems that have been significantly altered by human activities. This includes everything from agricultural lands shaped by farming practices, developed lands transformed by urbanization and construction, to areas dominated by non-native species due to human influence, and ruderal habitats colonizing lands disturbed by human activities. Although the Project is large in total size – it has very low species richness and diversity, and lacks high quality breeding and refuge habitats for special status species. This is to be expected as a result of the significant ground disturbance (i.e., grading, disking, tilling and deep ripping, weed abatement, fire suppression, and livestock grazing) associated with crop cultivation, and numerous other human related undertakings that have occurred over the past quarter of a century.

Additionally, 40% of the Conservation area has been determined to include *Xerophytic Communities*, or land cover types which represent unique habitats for various native plant and animal species; and the Project has been specifically designed to avoid and conserve these areas, as there is potential for special-status species to occur there. These lands are expected to be dedicated to the RCA for long-term management.

3.1 Vegetation Communities and Land Cover Types

In 2012 the MSHCP mapped the vegetation within the Project Components as detailed below in Table 1. (GISD 2023, Appendix A, Figure 6).

Table 1. Summary of 2012 MSHCP Mapped Vegetation/Land Use Types

2012 Vegetation Communities and Land Cover Types	Project Component	Acreage[9]
Annual Grassland	Conservation Area	37.80
Coastal Scrub	Conservation Area	15.18

[9] Offsite Project Component includes the intersection buffers.

2012 Vegetation Communities and Land Cover Types	Project Component	Acreage[9]
Cropland, Orchard - Vineyard	Conservation Area	38.43
Urban	Conservation Area	5.70
Annual Grassland	Offsite	6.32
Coastal Scrub	Offsite	3.63
Cropland, Orchard - Vineyard	Offsite	65.40
Urban	Offsite	78.09
Annual Grassland	Project Footprint	13.63
Coastal Scrub	Project Footprint	2.27
Cropland, Orchard - Vineyard	Project Footprint	469.40
Urban	Project Footprint	0.23

Nonetheless, in 2023 eight (8) land cover types were observed within the Project Footprint, Offsite and Conservation areas (Table 2 and Appendix A, Figure 7). The types observed in 2023 are described below. Plant species detected during field surveys are identified in Appendix G.

Table 2. Summary of Vegetation/Land Use Types

Vegetation Communities and Land Cover Types	Project Component	Acreage[10]	Percentage of Project Component	Percentage Anthropogenic Biomes[11]	Percentage Xerophytic Communities[12]
Agricultural	Conservation	21.29	22%	60%	40%
Developed/Disturbed	Conservation	3.51	4%		
Disturbed Alkali Playa	Conservation	21.45	22%		
Non-Native Grassland	Conservation	1.38	1%		
Riversidean Sage Scrub	Conservation	16.18	17%		
Ruderal	Conservation	32.11	33%		
Southern Riparian Scrub	Conservation	1.18	1%		
Conservation		97.11	100%		
Agricultural	Offsite	21.47	14%	98%	2%
Developed/Disturbed	Offsite	85.01	55%		
Non-Native Grassland	Offsite	0.01	<1%		
Ornamental	Offsite	0.97	1%		
Riversidean Sage Scrub	Offsite	2.04	1%		
Ruderal	Offsite	43.64	28%		
Southern Riparian Scrub	Offsite	0.29	<1%		
Offsite		153.42	100%		

[10] Offsite Project Component includes the intersection buffers.

[11] An Anthropogenic Landscapes or Biomes, refers to ecosystems that have been significantly altered by human activities. This can include everything from agricultural lands shaped by farming practices, developed lands transformed by urbanization and construction, to areas dominated by non-native species due to human influence, and ruderal habitats colonizing lands disturbed by human activities.

[12] Xerophytic Communities represents a unique habitat for various native plant and animal species, many of which are specialized to survive in the southwestern United States, specifically in regions like Southern California.

Vegetation Communities and Land Cover Types	Project Component	Acreage[10]	Percentage of Project Component	Percentage Anthropogenic Biomes[11]	Percentage Xerophytic Communities[12]
Agricultural	Project Footprint	155.53	32%	98%	2%
Developed/Disturbed	Project Footprint	10.80	2%		
Non-Native Grassland	Project Footprint	0.01	<1%		
Riversidean Sage Scrub	Project Footprint	8.33	2%		
Ruderal	Project Footprint	310.84	64%		
Southern Riparian Scrub	Project Footprint	0.03	<1%		
Project Footprint		485.53	100%		

Agriculture

This type is – or has historically been, in active agriculture (i.e., cultivated watermelon, irrigated alfalfa farming, barley and oat dry-land farming, potato farming, etc.). Agriculture practices have been noted on the Project historically and are subject to varying crop types and acreages.

Disturbed Alkali Playa

The disturbed alkali playa type, exhibits sign of temporary inundation and is within the historic floodplain of the San Jacinto River. The disturbed alkali playas include a mosaic of alkali adapted species including silverscale saltbush (Atriplex argentea), alkali weed (*Cressa truxillensis*), bush seepweed (*Suaeda nigra*), salt heliotrope (*Heliotropium curassavicum*), alkali mallow (Malvella leprosa), and special-status San Jacinto Valley crownscale (federally Endangered [FE], California Rare Plant Rank [CRPR] 1B.1) and smooth tarplant (CRPR 1B.1). However, dense patches of non-native species also occur within these areas, including foxtail barley (Hordeum murinum), summer mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), saltcedar (*Tamarix ramosissima*). Native ground cover species within these areas included Jimsonweed (*Datura wrightii*) and doveweed (*Croton setiger*).

Disturbed/Developed

The disturbed/developed areas occur in the form of unpaved access roads, paved vehicular roads, and developed infrastructure such as the San Jacinto River levee. These areas are routinely maintained and are primarily unvegetated.

Non-Native Grasslands

The non-native grassland areas are differentiated from the ruderal vegetation classification as they are not as routinely maintained, but are often grazed by sheep then subsequently allowed to develop into a functioning grassland system. Dominant species found within the non-native grassland areas were common fiddleneck (*Amsinckia menziesii*), ripgut grass (*Bromus diandrus*), red brome tragus), and barbwire Russian thistle (*Salsola australis*).

Ornamental

Ornamental plantings are associated with residential land uses, predominately adjacent to proposed Offsite areas.

Riversidean Sage Scrub

The majority of the Riversidean sage scrub areas have been disturbed due to off-road vehicles, or is undisturbed due to the steepness of the terrain and large boulders that occur throughout. These areas

are dominated with California buckwheat (*Eriogonum fasciculatum var. polifolium*), California sagebrush (*Artemisia californica*), sticky monkeyflower (*Diplacus aurantiacus*), brittlebush (*Encelia farinosa*), ripgut brome, and red brome.

Ruderal

Ruderal vegetation covers areas that are routinely disked for weed abatement and fire suppression. Dominant plant species observed included stinknet (*Oncosiphon piluliferum*), puncture vine (*Tribulus terrestris*), London rocket (*Sisymbrium irio*), red-stemmed filaree (*Erodium cicutarium*), cheeseweed (*Malva parviflora*), ripgut grass, red brome, tocalote, Russian thistle, barbwire Russian thistle, and doveweed. The common fiddleneck was also observed infrequently throughout this vegetation community.

Southern Riparian Scrub

Southern Riparian Scrub was detected within and along the banks of the San Jacinto River. This area includes riparian species including Goodding's black willow (*Salix gooddingii*), saltcedar, and mulefat (*Baccharis salicifolia*), with herbaceous species including common spikerush *(Eleocharis palustris*) and toothed dock (*Rumex dentatus*). Non-native species such as summer mustard, foxtail barley, and annual brome grasses are also dominant along the banks of the river.

3.2 Special-Status Plants

Several Federal or State listed plant species have been documented within 10 miles the Project Footprint, Offsite and Conservation areas (Appendix A, Figure 9, and Appendix C). Additionally, discrete portions of the Offsite and Conservation areas overlap with USFWS-designated critical habitat for Spreading navarretia (Appendix A, Figure 10). As noted above, the Project Footprint, Offsite and Conservation areas lie partially - or completely, within predetermined survey areas for the MSHCP Criteria Area Plant Species Survey Area (CAPSSA), Narrow Endemic Plant Species Survey Area (NEPSSA). According to the RCA MSHCP Information Map, Project components are within MSHCP NEPSSA designated Survey Areas 3 and/or 10, as well as CAPSSA designated Survey Area 3.

Appendix C, provides a list of special-status plants evaluated by means of general biological surveys, habitat assessments, and focused surveys. The following special-status plants were detected within the Conservation areas *Xerophytic Communities*:

- Coulter's goldfields (CRPR 1B.1);
- San Jacinto Valley crownscale (federally -Endangered, CRPR 1B.1);
- smooth tarplant (CRPR 1B.1); and
- spreading navarretia (federally-Threatened, CRPR 1B.1).

No special status plants – or their suitable habitat, were identified within the Project Footprint or the Offsite areas. Special-status plants detected within the Conservation areas are described in more detail below.

Coulter's Goldfields – This species is designated as a CNPS List 1B.1, but is not a state or federally listed species. This annual herb is known to occur in marshes and swamps, as well as playas and vernal pools below 4,000 feet (1,220 meters) amsl. Coulter's goldfields are known to occur from San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties. It is known to bloom from February through June. Coulter's goldfields were observed within the Conservation areas disturbed alkali playa vegetation community. The Coulter's goldfields were initially observed on March 26, 2019.

San Jacinto Valley crownscale – This species is designated as federally Endangered, as well as a CNPS List 1B.1. This annual herb is known to occur in playas, valley and foothill grasslands, and alkaline vernal pools from 456 to 1,640 feet (139 to 500 meters) amsl. San Jacinto valley crownscale is known to occur from Kern and Riverside Counties and is known to bloom from April through August. San Jacinto Valley crownscale individuals were observed and documented within the Conservation areas disturbed alkali playa vegetation community. The population occurs in multiple discrete patches and was initially observed on March 26, 2019.

Smooth Tarplant – This species is designated as a CNPS List 1B.1, but is not a state or federally listed species. This annual herb is known to occur in chenopod scrub, meadows and seeps, playas, riparian woodland and saline valley and foothill grasslands below 2,100 feet (640 meters) amsl. Smooth tarplant is known to occur from Riverside, San Bernardino, and San Diego Counties and is known to bloom from April through September. Smooth tarplant individuals were observed within the Conservation areas disturbed alkali playa vegetation community.

Spreading Navarretia – This species is federally Threatened, as well as a CNPS List 1B.1. This annual herb is known to occur in chenopod scrub, marshes and swamps, as well as playas and vernal pools from 30 to 4,265 feet (1,300 meters) amsl. Spreading navarretia is known to occur from San Luis Obispo, Los Angeles, Riverside, and San Diego Counties, and is known to bloom from April through June. Spreading navarretia individuals were observed within the Conservation areas disturbed alkali playa vegetation community.

3.3 Wildlife

Wildlife species observed within the Project Components consisted of commonly-occurring species - including, but not limited to, house finch (*Haemorhous mexicanus*), western meadowlark (*Sturnella neglecta*), common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos), California ground squirrel (Otospermophilus beecheyi)* and western cottontail (*Sylvilagus audubonii*). Wildlife detected during the surveys are identified in Appendix H.

3.4 Special-Status Wildlife

Several Federal or State listed wildlife species have been documented within 10 miles the Project Footprint, Offsite and Conservation areas (Appendix A, Figure 9 and Appendix C). Nonetheless, the Project Footprint, Offsite and Conservation areas do not overlap with any USFWS-designated critical habitat for wildlife (Appendix A, Figure 10).

Appendix C provides a list of the special-status animals evaluated through general biological surveys, habitat assessments, and focused surveys. The following special-status animals were detected within the Project Footprint, and Conservation areas:

- ferruginous hawk (CDFW-SSC);
- northern harrier (CDFW-SSC);
- white-tailed kite (CDFW-FP);
- loggerhead shrike (CDFW-SSC);
- LAPM (CDFW-SSC);
- northwestern San Diego pocket mouse (CDFW-SSC);
- San Diego desert woodrat (CDFW-SSC);
- Stephens' kangaroo rat (ST, FE); and
- San Diego blacktailed jackrabbit (CDFW-SSC).

No special-status animals were detected within the Offsite areas. Special-status animals detected within the Project Footprint, and Conservation areas are described in more detail below.

Ferruginous Hawk – The ferruginous hawk does not have a federal or state designation, however this species is considered locally rare when wintering and is a California Species of Special Concern (SSC). The ferruginous hawk is a fairly common winter resident of grassland and agricultural areas in southwestern California (Garrett and Dunn 1981). The ferruginous hawk breeds in northern Nevada, eastern Oregon and Washington, and eastward to the western Dakotas. A single ferruginous hawk was observed foraging over the Project Footprint, and Conservation areas in March of 2019. This species is not expected to nest within the Project Footprint, Offsite or Conservation areas; as they are all located outside of the breeding range for this species.

Loggerhead Shrike – The loggerhead shrike is designated as a SSC when nesting and is a covered species under the MSHCP. The loggerhead shrike is found throughout the foothills and lowlands of California as a resident (Zeiner et al. 1990). The loggerhead shrike 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. Individual loggerhead shrikes were observed multiple times foraging near the San Jacinto River in 2019 and 2020. The loggerhead shrike is expected to forage in the Project Footprint, and Conservation areas. It is not expected to occur within the Offsite areas.

Northern Harrier – The northern harrier is designated 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. An individual northern harrier foraging on three separate visits to the Project Footprint and Conservation areas was detected in 2019. It is unknown if the same individual was observed on each occasion. This species is expected to forage in the Project Footprint, and Conservation areas. It is not expected to occur within the Offsite areas.

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 California Fully Protected (CFP) species and is a covered species under the MSHCP. The white-tailed kite 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. Multiple individual white-tailed kites were observed foraging on separate visits to the Project Footprint and Conservation areas in 2019. This species is expected to forage in the Project Footprint, and Conservation areas. It is not expected to occur within the Offsite areas.

Los Angeles Pocket Mouse – The LAPM is designated as a SSC and is a covered species under the MSHCP. The LAPM prefers fine, sandy soils and may utilize these soil types for burrowing. Vegetation communities associated with LAPM habitat include non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, and chaparral. Protocol trapping for the LAPM was conducted, as required by the MSHCP - from June 27 to July 5, 2020. Fourteen (14) LAPM individuals were captured during the survey within the Project Footprint, and Conservation areas. No suitable LAPM habitat was detected within the Offsite Areas. Please see Appendix D for more details.

Northwestern San Diego Pocket Mouse – The northwestern San Diego pocket mouse is designated as a SSC and is a covered species under the MSHCP. The northwestern San Diego pocket mouse inhabits coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. It inhabits open, sandy areas of both the Upper and Lower Sonoran life-zones of southwestern California and northern Baja California (McClenaghan 1983). During LAPM protocol surveys, 27 northwestern San Diego pocket mice were captured within the Project Footprint, and Conservation areas (Appendix D). No suitable San Diego pocket mice habitat was detected within the Offsite areas.

San Diego Black-Tailed Jackrabbit – The San Diego blacktailed jackrabbit is designated as a SSC and is a covered species under the MSHCP. The blacktailed-jackrabbit occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats. Jackrabbits typically are not found in high grass or dense brush where movement is difficult, and the openness of open scrub habitat probably is preferred over dense chaparral. Black-tailed jackrabbits are found in most areas that support annual grassland, Riversidean sage scrub, alluvial fan sage scrub, Great Basin sagebrush, chaparral, disturbed habitat, and agriculture (MWD and RCHCA 1995). Individual black-tailed jackrabbits were observed within the Project Footprint and Conservation areas on multiple occasions during general and focused surveys. This species is expected to occur on the marginal areas between the Riversidean sage scrub, the open non-native grasslands and San Jacinto River banks where the vegetation is not disturbed as frequently. This species does not occur within the Offsite areas, as these locales mainly consists of paved roads and maintain road shoulders.

San Diego Desert Woodrat – The San Diego desert woodrat is designated as a SSC and is a covered species under the MSHCP. The San Diego desert woodrat is a sub-species of the desert woodrat (*N. lepida*); which is more widespread and found throughout central and Southern California and the Great Basin, Mojave, and Colorado deserts. Woodrats are noted for their flexibility or plasticity in utilizing various materials, such as twigs and other debris (sticks, rocks, dung), to build elaborate homes or "middens," which typically include several chambers for nesting and food, as well as several entrances. Middens may be used by several generations of woodrats (Cameron and Rainey 1972). The most common natural habitats utilized by the San Diego sub-species are chaparral, coastal sage scrub (including Riversidean sage scrub and Diegan coastal sage scrub) and grassland. During LAPM protocol surveys, one (1) San Diego desert woodrat was captured during the surveys (Appendix D). No suitable San Diego desert woodrat habitat was detected within the Offsite areas.

Stephens' Kangaroo Rat – The Stephens' kangaroo rat (SKR) is designated as a federally endangered species, a state threatened species, and is a covered species under the USFWS Habitat Conservation Plan. The SKR is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer (Bleich 1973). As a fossorial (burrowing) animal, SKR typically is found in sandy and sandy loam soils with a low clay to gravel content, although there are exceptions where they can utilize the burrows of Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel. During LAPM protocol surveys, five SKR individuals were captured (Appendix D). No suitable SKR habitat was detected within the Offsite areas.

The following special-status wildlife species were confirmed absent via focused surveys of the Project Footprint, Offsite and/or Conservations areas:

- Burrowing Owl;
- Dulzura Pocket Mouse (Chaetodipus californicus femoralis);
- San Bernardino Kangaroo Rat (Dipodomys merriami parvus), and
- Southern Grasshopper Mouse (Onychomys torridus ramona).

3.5 Raptor Use & Nesting Birds

The Project Footprint and Conservations areas provide suitable foraging and low-quality breeding habitat for a number of raptor species, including special-status raptors. As southern California holds a diversity of birds of prey (raptors), foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. Species, such as red-tailed hawk (*Buteo jamaicensis*) and American kestrel (Falco sparverius), are adaptable to human disturbance and can be readily observed adjacent to anthropogenically influenced environments. These species still require appropriate foraging habitat and insulation from disturbance in vicinity of nesting sites. Many of the raptors that would be expected to forage and nest within western Riverside are fully covered species under the MSHCP, with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Even common raptor species (e.g., American kestrel and red-tailed hawk) are not covered by the MSHCP, but are expected to be conserved - due to the parallel habitat needs with those raptors covered under the MSHCP.

It is also notable that the Project Footprint and Conservations areas contain trees, shrubs, and ground cover that also provide suitable habitat for nesting native birds. Mortality of native birds (including eggs) is prohibited under the California Fish and Game Code[13]. Even though the Project Footprint and Conservations areas support suitable ground nesting habitat within the ruderal vegetation and disturbed areas. The San Jacinto River, adjacent to the Project, does not exhibit a dense canopy of riparian or old growth trees that would be utilized by larger raptors such as Cooper's hawk or red-tailed hawk. However, these areas may provide nesting habitat for smaller bird species. The Offsite areas, do not contain suitable habitat for nesting birds, as a majority of this area consists of existing paved roadways.

3.6 Wildlife Linkages/Corridors and Nursery Sites

Habitat linkages are areas which provide a connection between two, or more habitats - which are often, larger or superior in quality to the linkage. Such linkages can be quite small - or constricted, but may be vital to the long-term health of coupled habitats. Linkage values are often addressed in terms of "gene flow" between populations. Corridors are similar to linkages, but provide specific opportunities for individual animals to disperse or migrate between locales, and separated regions. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor has functional value.

The Project is located within the proposed extension of MSHCP Existing Core 4 (Appendix A, Figure 4, and Appendix B). The MSHCP's proposed extension of Existing Core 4 includes the middle reach of the San Jacinto River, and is contiguous with existing conservation lands in the Lake Perris Recreation Area to the north of the Project. This linkage provides habitat for a number of Narrow Endemic Plant Species and movement for species connecting to Lake Perris, and additional areas downstream of the San Jacinto River, and Canyon Lake. Planning Species within the MSHCP's proposed extension of Existing Core 4 include San Jacinto Valley crownscale, thread-leaved brodiaea, arroyo toad, and LAPM. More specifically, the San Jacinto River drainage, to the south and east of the Project provide a movement corridor for medium to small mammals such as coyote, bobcat, and racoon between the adjacent open space associated with Lake Perris to the north and open space to the southwest of the Project. The river drainage also provides an aerial corridor for various bird and bat species moving through the region.

[13] 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.

3.7 Critical Habitat

Portions of the Offsite (13.11-acres) and Conservation (47.54-acres) areas lie partially - or completely, within USFWS Designated Critical Habitat for spreading navarretia (Appendix A, Figure 10). The USFWS Designated Critical Habitat is within the floodplain of the San Jacinto River. As stated above, spreading navarretia was observed within the Conservation areas associated with the disturbed alkali playa. However, these areas will be conserved by Richland, and will not be impacted by the Project, thus achieving the 90% conservation requirement per Sections 6.1.3 and 6.3.2 of the MSHCP for this species.

3.8 Wetlands and Waterways

The evidence obtained implies that the Project includes a notable amount of WoUS, and USACE defined wetlands (Appendix E1 - Figure 3). As features either bear signs of an OHWM, or satisfy the USACE criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential WoUS. The features observed are not isolated. Flows from them, via the San Jacinto River, eventually connect with Canyon Lake, then to Lake Elsinore and the Santa Ana River, before reaching the Pacific Ocean. These physical connections reinforce their potential status as WoUS. Table 3 below provide a summary of WoUS by Project Component.

Table 3. Summary of WoUS

Unique Identifier	USACE Non-Wetland Waters (Acres)	USACE Defined Wetland (Acres)	Total USACE Jurisdiction (Acres)	Total Length (Linear Feet)
Waters of the U.S. within the Project Footprint				
Feature 1	0	0	0	0
Feature 2	0	0.03	0.03	22
Waters of the U.S. within the Conservation Area				
Feature 1	0	20.59	20.59	2,040
Feature 2	0	1.42	1.42	1,134
Waters of the U.S. within the Offsite Areas				
Feature 1	0	0	0	0
Feature 2	0	0.26	0.26	253
TOTAL	**0**	**22.30**	**22.30**	3,449

The vast majority of signatures (i.e., >99%) within the Project Footprint are not WoS. Nonetheless, the Project includes riparian (22.30-acres) and non-riparian ephemeral dry washes and streambeds (7.92-acres) which total 5,211 linear feet (Appendix E2, Figure 3). These washes either connected, cross - or are within, the San Jacinto River. These distinct features have discernable bank lines with topographic relief, connectivity to the San Jacinto River, and subsequently to Canyon Lake, Lake Elsinore, the Santa Ana River and the Pacific Ocean. As a result, it has been determined that the aforementioned features consist of 30.22-acres of ephemeral, riparian and non-riparian streambeds which are characterized as WoS.

Table 4 below provides a summary of WoS by Project Component.

Table 4. Summary of WoS

Unique Identifier	Total CDFW Non-Riparian Stream (Acres)	Total CDFW Riparian Stream (Acres)	Total CDFW Jurisdiction (Acres)	Total Length (Linear Feet)
Waters of the State within the Project Footprint				
Feature 1	0	0	0	0
Feature 2	0.31	0.03	0.34	22
Feature 3	0	0	0	0
Feature 4	0	0	0	0
Waters of the State within the Conservation Area				
Feature 1	0	20.59	20.59	2,040
Feature 2	6.85	1.42	8.27	1,020
Feature 3	0	0	0	0
Feature 4	0	0	0	0
Waters of the State within the Offsite Areas				
Feature 1	0	0	0	0
Feature 2	0.39	0.26	0.65	253
Feature 3	0.26	0	0.26	960
Feature 4	0.11	0	0.11	916
Total	**7.92**	**22.30**	**30.22**	**5,211**

For the analysis within this report, all features that qualify as CDFW Section 1600 (et seq.) jurisdictional as WoS, are considered MSHCP riparian/riverine resources.

Detailed delineation methods, results, and assumptions are presented within Appendix E1 and E2.

3.9 Western Riverside Multiple Species Habitat Conservation Plan Riparian Riverine Resources & Vernal Pools

According to Section 6.1.2 of the MSHCP:

- "Riparian/Riverine Areas are 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."

- "Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the

> manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records."

As defined under Section 6.1.2 of the MSHCP, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, riparian/riverine areas are areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to several listed or special-status water-dependent fish, amphibian, avian, and plant species. For this analysis - within the Project Footprint, Offsite and Conservation areas, all features that qualify as CDFW jurisdiction as WoS, are considered MSHCP riparian/riverine resources. MSHCP riparian/riverine resources for the Project, include riparian (22.30-acres) and non-riparian ephemeral dry washes (7.92-acres) which total 5,211 linear feet

It is worth noting that the drainage patterns associated with the Project transporting flows toward the San Jacinto River that occur under existing conditions, will be unchanged by Project implementation (Hunsaker & Associates 2021). This is notable, as the San Jacinto River and its' terraces that are subject to flooding, and exhibit topography that may support vernal pools under the appropriate suite of circumstances. Nonetheless, areas within the disturbed alkali playas associated with the San Jacinto floodplain that exhibit topography and vernal pool soil characteristics, will be avoided as they are located within the proposed Conservation areas.

3.10 Soils

The Web Soil Survey is an online Geographic Information System (GIS) that provides the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) with online soil data (NRCS 2023). This website was used to assess soil characteristics and soil types within the Project Footprint, Conservation and Offsite areas. This database was also used to determine if the Project Component's mapped soils were likely to include any hydrologically influenced areas.

According to the USDA NRCS, the Project Components consists of the following soil complexes (Appendix A, Figure 8).

Project Footprint

- HcC, Haire clay loam, 0 to 9 percent slopes;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- MmD2, Miramar coarse sandy loam, moderately steep, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, Eroded;
- Wn, Wyo silt loam;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded; and
- RaC2, Rincon clay loam, 2 to 9 percent slopes, eroded.

Conservation Area

- Wn, Wyo silt loam;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;

- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- Wg, Wyo loam, deep over gravel; and
- RsC, Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14.

Offsite Area

- EnA, Exeter sandy loam, 0 to 2 percent slopes;
- EnC2, Elder shaly loam, 2 to 9 percent slopes, eroded;
- ReC2, Ramona very fine sandy loam, 0 to 8 percent slopes, eroded;
- HcC, Haire clay loam, 0 to 9 percent slopes;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, Eroded;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded; and
- Wn, Wyo silt loam.
- Wg,Wyo loam, deep over gravel
- Wh,Wyo gravelly loam, moderately deep over gravel
- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes

Of the above referenced soil types, none are formally classified as hydric. Please note that the NRCS Soil mapped units do not provide precise information, about the locations of soil types - or their inclusions. NRCS Soil Survey data users are cautioned that due to the limitations of mapping – primarily through aerial photo interpretation, a percentage of unique soil types may have gone unidentified, or misidentified.

4.0 IMPACTS

The following discussion examines potential Project impacts to plant and wildlife resources that could occur - within the Project Footprint, Offsite and Conservation areas, as a result of the Project implementation. Impacts (or effects) can occur in three forms, direct, indirect and cumulative.

- ✓ 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.

4.1 Impacts to Special Status Plants

Four special-status plant species were observed within the Conservation areas disturbed alkali playa habitat, including:

- Coulter’s goldfields;
- San Jacinto Valley crownscale;
- smooth tarplant, and
- spreading navarretia.

However, there will be no impacts to these species as the Project has been designed to avoid and conserve the areas where these special-status plants have the potential to occur. These lands – identified and labeled as the Project’s Conservation areas throughout this document, are also expected to be dedicated

to the RCA for long-term management. Therefore, no significant impacts to special-status plant species are expected.

Sections 6.1.3 and 6.3.2 of the MSHCP require that projects avoid 90% of areas providing long- term conservation value for applicable species when NEPSSA and/or CAPSSA species are detected. As stated above, the Project occurs within a NEPSSA and CAPSSA, and four special-status plant species were observed during focused-plant surveys. However, the Project will avoid impacts to the disturbed alkali playas where these four species have been detected. These areas are also expected to be dedicated to the RCA for long-term management. Therefore, the Project will meet the MSHCP requirement for avoidance of the NEPSSA and CAPSSA species by avoiding these populations.

No special-status plant species - or their habitats, occur within the Project Footprint and Offsite Areas, including NEPSSA or CAPSSA species; therefore, no temporary or permanent impact to special-status plants will occur in those locales.

4.2 Impacts to Special Status Wildlife

The Project will result in the loss of habitat that supports special-status species, including – but not limited to the following (Appendix C):

- ferruginous hawk;
- northern harrier;
- white-tailed kite;
- loggerhead shrike;
- LAPM;
- northwestern San Diego pocket mouse;
- San Diego desert woodrat;
- Stephens' kangaroo rat; and
- San Diego black-tailed jackrabbit.

Impacts to Birds

Of the four special-status (non-listed) bird species known to occur within the Project Footprint and Conservation areas, the northern harrier and loggerhead shrike are not expected to nest within areas that will be directly impacted by the Project. Impacts to these species are covered under the MSHCP conservation goals and therefore, Project impacts to suitable nesting habitat are addressed through consistency with the MSHCP[14], and specific measure outlined below in Sections 5 and 6.

Furthermore, the Project will avoid vegetation removal during the nesting bird season to the greatest extent practical. With implementation and coverage of the Project under the MSHCP conservation goals, and the avoidance of the bird breeding season, the Project would not have a significant impact on special-status bird species.

Impacts to Small Mammals

Five special-status small mammal species are known to occur within the Project Footprint and Conservation areas. The Project would directly impact small mammal habitat. Impacts to these species are covered under the MSHCP conservation goals and therefore, these impacts are addressed through

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

consistency with the MSHCP, and specific measure outlined within Sections 5 and 6, below. The Project is within the MSHCP Mammal Survey Area for LAPM; however, it was determined that there would be no significant impact to the LAPM and other species of small mammals, as the Project Footprint, and Conservation areas do not contain long-term conservation value for this species (Appendix D).

The LAPM – in addition to other species of small mammals, were distributed along the Project's dirt roads, development boundaries and away from the active agricultural fields. LAPM and other small mammals do not currently occur within highly impacted agricultural fields. LAPM densities within the Project's occupied habitat is consistent with documented densities for this species of less than 2 animals per hectare. Based on current and past surveys, and data base records of LAPM for the Project, LAPM occurs sporadically in this area, in trace densities. The Project's Road network might allow for some marginal connectivity to other potential and documented small mammal habitat in the region – albeit tenuous. Therefore, the LAPM population within the Project Footprint is small, limited in area of distribution, relatively isolated and of limited value. Movement of these animals within the Project Footprint will not be affected by Project implementation any more than they have been by ongoing agricultural activities in this area for decades. Furthermore, animals within the Conserved areas will not be impacted by Project implementation.

Based on the information noted above, the Project Footprint and Conservation areas do not have long-term conservation value for LAPM, or other small mammals. Development of the Offsite areas will not result in the loss of habitat supporting special-status wildlife species either, as a majority of those lands contains paved roadways, etc.

4.3 Impacts to Sensitive Vegetation Communities:

The Project will permanently impact 0.31-acre of Southern Riparian Scrub during construction. The loss of riparian habitat must be mitigated pursuant to Volume I, Section 6.1.2 of the MSHCP. Impacts to Southern Riparian Scrub would be reduced to a less than significant level through participation in the MSHCP, and the specific measure outlined below in Sections 5 and 6.

4.4 Impacts to Wetlands

Within the Conservation areas, 22.01-acres of WoUS – including USACE-defined wetlands occur within the disturbed alkali playa (20.59-acres) and the San Jacinto River (1.42-acres). The Project will avoid all impacts to the disturbed alkali playa, which will be dedicated as conservation land to the RCA for long-term management. Development related to utility installation and roadway improvements would impact 0.29-acre of WoUS – including USACE-defined wetlands within the San Jacinto River, and its associated floodplain.

Permanent impacts to wetlands will require compensatory mitigation. The Project proponent will seek wetland mitigation from an agency approved bank or in-lieu fee program at a minimum 1:1 ratio. As such, impacts to USACE defined wetlands will be less than significant with mitigation and the specific measure outlined below in Sections 5 and 6.

4.5 Impacts to Wildlife Movement and Native Wildlife Nursery Sites

The Project is located within the proposed extension of MSHCP Existing Core 4 (Appendix A, Figure 4, and Appendix B). The MSHCP's proposed extension of Existing Core 4 includes the middle reach of the San Jacinto River, and is contiguous with existing conservation lands in the Lake Perris Recreation Area to the north of the Project. This linkage provides habitat for a number of Narrow Endemic Plant Species and movement for species connecting to Lake Perris, and additional areas downstream of the San Jacinto

River, and Canyon Lake. Planning Species within the MSHCP's proposed extension of Existing Core 4 include San Jacinto Valley crownscale, thread-leaved brodiaea, arroyo toad, and LAPM. More specifically, the San Jacinto River drainage, provide a movement corridor for medium to small mammals such as coyote, bobcat, and racoon between the adjacent open space associated with Lake Perris to the north and open space to the southwest of the Project. The river drainage also provides an aerial corridor for various bird and bat species moving through the region.

To that end, the Conservation areas disturbed alkali playas and floodplain terraces of the San Jacinto River are contiguous with the proposed extension of MSHCP Existing Core 4. These areas are also expected to be dedicated to the RCA for long-term management. Therefore, the Project will have a beneficial long-term effect on wildlife movement; even though temporary disturbances may occur during construction. 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, and the specific measure outlined below in Sections 5 and 6 would reduce impacts to wildlife movement. Additionally, no native wildlife nursery sites were observed within the Project Components, and therefore, no significant impacts to wildlife nursery sites would occur.

4.6 Local Policies or Ordinances

The Project will not conflict with any local policies or ordinances protecting biological resources.

4.7 Habitat Conservation Plans

As discussed throughout this document, the Project Footprint, Offsite and Conservation areas fall within the boundaries of the MSHCP. This report analyzes the Project with respect to MSHCP Reserve Assembly and species/habitat requirements. Through compliance with the applicable requirements, and the specific measure outlined below in Sections 5 and 6, the Project will not conflict with the provisions of the MSHCP.

4.8 Impacts to Critical Habitat

As discussed throughout this document, portions of the Offsite and Conservation areas are located within USFWS Designated Critical Habitat for spreading navarretia. The USFWS Designated Critical Habitat within the floodplain of the San Jacinto River that will be impacted within the Project's Offsite areas. These impacts are curtailed to the Offsite areas – predominately tied to roadway improvements. Coordination with the RCA and USFWS regarding impacts to USFWS Designated Critical Habitat will be required. As stated above, spreading navarretia was observed within the Conservation areas associated with the disturbed alkali playa; however, these areas that support special status plants will be conserved by Richland and will not be impacted by the Project, thus achieving the 90% conservation requirement per Sections 6.1.3 and 6.3.2 of the MSHCP for this species.

4.9 Impacts to Jurisdictional Waters

The Project contains WoS or WoUS (Appendix E1 and E2). However, all WoS, WoUS and USACE defined wetlands within the Conservation areas will be avoided. Nonetheless, the Project will permanently impact 0.29-acres (275 linear feet) of WoUS – including USACE defined wetlands. While 1.36-acres of WoS (2,151 linear feet), which include riparian (0.29-acres) and non-riparian ephemeral dry washes and streambeds (1.07-acres) will be permanently impacted by Project development as well.

The Project's impacts to MSHCP riparian/riverine areas are identical to impacts to WoS, and CDFW as stated above. The Project's riparian areas do not contain suitable habitat for riparian-associated birds including least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. However,

these drainages still support hydrological and biological functions and values including water transport, flood attenuation, groundwater recharge, and providing habitat for downstream aquatic resources.

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 DBESP is required, which will be prepared at a later date under a separate cover and submitted for approval to the RCA and Wildlife Agencies prior to impacts to MSHCP riparian/riverine resources. The Project's consistency with the MSHCP, and the specific measure outlined below in Sections 5 and 6 would reduce impacts to a level of less than significant.

4.10 Indirect Impacts to Biological Resources

With deference to biological resources, indirect effects are those effects associated with developing areas adjacent to 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 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 Project Footprint, Offsite and Conservation areas are 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), and the specific measure outlined below in Sections 5. These guidelines – when followed, are intended to address indirect effects associated with locating projects (particularly development) in proximity to MSHCP Conservation Areas. To minimize potential edge effects, the guidelines are to be implemented in conjunction with development projects in proximity to the MSHCP Conservation Area.

To that end, the Project will implement measure consistent with the MSHCP guidelines to address the following:

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

4.10.1 Drainage

The Project shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to safeguard 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 MSHCP Conservation Areas. 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 MSHCP Conservation Areas. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to safeguard effective operations of runoff control systems. Additionally, the Project will also develop a Stormwater Pollution Prevention Plan (SWPPP) for runoff and water quality during construction.

4.10.2 Toxics

Land uses in proximity to MSHCP Conservation Areas that use chemicals or generate bioproducts that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to safeguard that application of such chemicals does not result in discharge to MSHCP Conservation Areas. Measures such as those employed to address drainage issues shall be implemented. As previously discussed within this document, the Project will also develop a Stormwater Pollution Prevention Plan (SWPPP) for runoff and water quality during construction.

4.10.3 Lighting

Night lighting shall be directed away from MSHCP Conservation Areas to protect species within MSHCP Conservation Areas from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to safeguard ambient lighting in the MSHCP Conservation Area is not increased.

4.10.4 Noise

Proposed noise generating land uses affecting MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on resources within MSHCP Conservation Areas pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes Section 6.1.4 of the MSHCP specifies that wildlife within Conservation Areas should not be subject to noise that would exceed residential noise standards. Since the Project will include noise generating loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, truck movements, and drive-through speakerphone activity, operational noise levels have been calculated in the nearby habitat locations and compared to the City of Riverside residential noise level limits[15]. The Western Riverside County Regional Conservation Authority recommends a noise level limit of 65 A-weighted Decibels (dBA) Equivalent Continuous Sound Level (Leq)[16]. Thus, Project construction activities are evaluated against a 65 dBA Leq limit.

4.10.5 Invasive Species

As discussed, the Project is adjacent to MSHCP Conservation Areas, therefore it 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.

4.10.6 Barriers

As discussed, the Project is adjacent to MSHCP Conservation Areas, therefore uses adjacent to MSHCP Conservation Areas shall incorporate barriers, where appropriate to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms.

4.10.7 Grading/Land Development

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

[15] Urban Cross Roads. 2023. Stoneridge Commerce Center Specific Plan Noise and Vibration Analysis, County of Riverside. June 12, 2023.

[16] B. Lawson, Registered Professional Traffic Engineer and a Certified Acoustical Consultant. Personal Communication. August 23, 2023. Mr. Lawson maintains a wide range of technical expertise that includes transportation planning, traffic engineering, neighborhood traffic control, and noise impact analysis. Mr. Lawson has over 25 years of community noise experience and has personally prepared and directed the development of well over 2,000 noise study reports throughout Southern California. Additionally, Mr. Lawson holds a Master of Science in Civil and Environmental Engineering, and a Bachelor of Science in City and Regional Planning California Polytechnic State University, San Luis Obispo.

5.0 MINIMIZATION/AVOIDANCE MEASURES

The following discussion provides project-specific minimization and avoidance measures for actual - or potential impacts, to special-status resources.

5.1 Burrowing Owl

The Project Footprint, Offsite and Conservation areas contain suitable habitat for burrowing owls; however, burrowing owls were not detected during focused surveys. MSHCP Objective 6 for burrowing owls requires a pre-construction survey prior to grading. 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 safeguard that no owls have colonized the Project Footprint or Offsite areas in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the Project Footprint or Offsite areas 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, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur but the Project Footprint or Offsite areas are left undisturbed for more than 30 days, a pre-construction survey will again be necessary to safeguard burrowing owl has not colonized the area since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

5.2 Nesting Birds

The Project Footprint, Offsite and Conservation areas contain 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 mortality to nesting birds.

- ✓ To the greatest extent practical, vegetation clearing should be conducted outside of the nesting season, which is generally identified as March 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance, 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.

5.3 Jurisdictional Waters

As discussed above, 0.29-acres (275 linear feet) of WoUS – including USACE defined wetlands would be permanently impacted by Project development. Since these features are considered WoUS, they are also subject to the USACE's jurisdiction in accordance with Section 404 of the CWA, and Regional Board jurisdiction under Section 401 of the CWA as well.

Additionally, a total of 1.36-acres of WoS (2,151 linear feet), which include riparian (0.29-acres) and non-riparian ephemeral dry washes and streambeds (1.07-acres) would be permanently impacted by Project development. Since these features are considered WoS, they are also subject to jurisdiction by the CDFW pursuant to Section 1600 (et seq.) of the CFG Code, and the Regional Board in accordance with Section 13260 of the CWC.

Therefore, the following measure identifies mitigation proposed for impacts to jurisdictional waters.

- ✓ Impacts to jurisdictional waters (i.e., WoS and WoUS) shall be mitigated at a minimum 3:1 ratio, subject to approval of the USACE, Regional Board and CDFW, and include the purchase of rehabilitation and/or re-establishment credits at the Riverpark Mitigation Bank, or an equivalent intuition/organization.

5.4 MSHCP Riparian/Riverine Areas

The Project's impacts to MSHCP riparian/riverine areas are identical to impacts to WoS, and CDFW as stated above. Therefore, impacts include a total of 1.36-acres of MSHCP Riparian/Riverine areas (2,151 linear feet), which include riparian (0.29-acres) and non-riparian ephemeral dry streambeds (1.07-acres) within the Offsite areas. But the Project's riparian areas do not contain suitable habitat for riparian-associated birds including least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo.

The following measures will address these impacts. 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 is not feasible, and the compensation provided to safeguard 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 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.

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

- ✓ Impacts to riparian/riverine resources shall be mitigated at a minimum 3:1 ratio, subject to approval of the RCA, and include the purchase of rehabilitation and/or re-establishment credits at the Riverpark Mitigation Bank, or an equivalent intuition/organization.

5.5 Indirect Impacts to Biological Resources

As detailed below in Section 6, the Project will implement the MSHCP Urban/Wildland Interface Guidelines to address indirect effects associated with locating development in proximity to MSHCP Conservation Areas.

But to further minimize such edge effects, the following measures will be implemented in conjunction with the MSHCP Urban/Wildland Interface Guidelines:

- ✓ Prior to approval of implementing developments (i.e., plot plans, building permits, etc.) affecting lands adjacent to the on-site MSHCP Conservation Areas, the Project Applicant shall prepare and Riverside County shall review and approve an acoustical analysis to determine whether long-term operational noise associated with the implementing development would expose the proposed MSHCP Conservation Areas to noise levels exceeding 65 dBA Leq. In the event that the analysis shows that future site operations would expose the Conservation Areas to noise levels exceeding 65 dBA Leq, the required acoustical analysis shall incorporate recommendations to reduce Project-related operational noise affecting the Conservation Areas to below 65 dBA Leq. Noise attenuation measures may include, but are not necessarily limited to, the incorporation of screen

walls or other barriers (such as berms). Prior to issuance of building permits, the Riverside County Building and Safety Department shall ensure that any required noise attenuation measures have been incorporated into the plans, and shall verify that the noise attenuation measures have been implemented prior to final building inspection.

- ✓ To reduce nighttime artificial lighting-related impacts to wildlife using MSHCP Conservation Areas - including Riverpark Mitigation Bank, the Project shall take lightning measurements before, during, and post construction operations to determine impacts of nighttime artificial lightning. In the event that the analysis shows that future Project operations would expose MSHCP Conservation Areas - including Riverpark Mitigation Bank, to a net increase to ambient night- the analysis shall incorporate recommendations to reduce light or glare impacts. Light attenuation measures may include, but are not necessarily limited to, landscape shielding, dimming, lighting curfews or other appropriate measures.

- ✓ The Project will examine the use of tubular steel fencing, solid walls and other materials within targeted locations to reduce potential impacts and conflicts with MSHCP Conservation Area resources and prevent incidental impacts to wildlife.

5.6 MSHCP Consistency

The Project Footprint, Offsite and Conservation areas fall within the boundaries of the MSHCP. Therefore, the Project shall demonstrate consistency with the MSHCP Reserve Assembly and species/habitat requirements. The development of the Project Footprint was previously determined to be consistent with the MSHCP as part of JPR 06-08-18-01, dated September 15, 2006. A HANS determination letter, HANS 269, was also approved for the Project, dated September 18, 2006. Nonetheless, it is expected that amendments to the HANS and JPR are needed to cover the Project's proposed improvements within the Offsite areas. As a result, Richland proposes to amend JPR 06-08-18-01 to include the Offsite areas that were not evaluated 2006.

Pursuant to Section 6.1.2 of the MSHCP, the following measure has been identified to safeguard compliance and consistency with the MSHCP for the implementation of the Project relative to the JPR processes:

- ✓ A detailed MSHCP Consistency Analysis Report should be provided under a separate cover to Riverside County. As the Project is subject to a determination that proposed activities are consistent with the policies within Section 6.0 of the MSHCP.

6.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the Project with respect to compliance with biological aspects of the MSHCP. Specifically, this analysis evaluates the Project with respect to the 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).

6.1 Project Relationship to Reserve Assembly

As stated throughout this document, the development of the Project Footprint was previously determined to be consistent with the MSHCP as part of JPR 06-08-18-01, dated September 15, 2006. This JRP required the conservation of 80 acres of land along the San Jacinto River. A HANS determination letter, (HANS 269), was also approved for the Project, dated September 18, 2006. This letter determined that the RCA concurred with the conservation documented in the JPR. Nonetheless, it is expected that amendments to the HANS and JPR may be needed to cover the Project's proposed improvements within the Offsite areas. A copy of the HANS determination letter is attached as Appendix B, in addition to the JPR approval letter. The proposed improvements within the Offsite areas are presumably Covered Activities in MSHCP Section 7.3.5. But the Project Footprint, Conservation and Offsite areas are located in Criteria Cells and are therefore subject to the HANS process. However, since the Project is designed to avoid development of sensitive areas, providing conservation towards additional Reserve Assembly is not expected to be required when amending the aforesaid JPR.

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

The Project will impact 1.37-acres of MSCHP riparian/riverine habitat. No vernal pools were observed within the Project Footprint, Offsite and Conservation areas. However, several special-status plant species (e.g., Coulter's goldfields, San Jacinto Valley crownscale, smooth tarplant, and spreading navarretia) associated with vernal pools and alkali playas were observed, within the Conservation areas. These specific locations are outside of the Project's direct impact areas, and will be avoided and conserved. Furthermore, prior to construction these areas will be delineated with fencing and/or rope to demarcate the limits of disturbance and safeguard avoidance of these areas during construction.

Nonetheless, to offset 1.36-acres of permanent impacts to MSHCP riparian/riverine areas, the Project will purchase wetland/riparian habitat establishment and/or rehabilitation credits from an approved mitigation bank, such as the Riverpark Mitigation Bank, at a minimum 3:1 ratio. In addition, the Project will prepare and submit a DBESP analysis to the RCA and the Wildlife Agencies (CDFW and USFWS) for review and approval. Final compensation for the loss of 1.36-acres of MSHCP riparian/riverine areas will be determined through the DBESP process.

6.3 Protection of Narrow Endemic Plants

As noted above, the Project Footprint, Offsite and Conservation areas lie partially - or completely, within predetermined CAPSSA and NEPSSA. According to the RCA MSHCP Information Map, Project components are within MSHCP NEPSSA designated Survey Areas 3 and/or 9, as well as CAPSSA designated Survey Area 3.

The Conservation areas were found to support spreading navarretia as discussed above (Section 3). However, the areas in which these species were observed, will be avoided by the Project; thus, achieving the MSHCP requirement to avoid 90 percent of any population of these species located within the Project

Footprint. In addition, the survey of the Project Footprint and Offsite areas were negative for San Diego ambrosia, California Orcutt grass, and Wright's trichocoronis. These species were confirmed absent through focused plant surveys. As such, the Project would be consistent with Volume I, Section 6.1.3 of the MSHCP.

No sensitive plants were identified within the Project Footprint or Offsite areas.

6.4 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 MSHCP Conservation Areas. As development is expected to occur adjacent to MSHCP Conservation Areas. Future development in proximity to MSHCP Conservation Areas may result in edge effects with the potential to adversely affect biological resources.

To minimize such edge effects, the guidelines shall be implemented in conjunction with private development projects in proximity to MSHCP Conservation Areas, and address the following:

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

As discussed in Section 4 and 5 above, the Project Footprint, Offsite and Conservation areas will implement applicable measures as it relates to temporary construction impacts to minimize adverse indirect impacts on special-status resources within Conserved Lands. The Project will be consistent with Section 6.1.4 of the MSHCP.

6.5 Additional Survey Needs and Procedures

Pursuant to Volume I, Section 6.3.2 of the MSHCP, focused surveys were completed for Narrow Endemic Plant Species and Criteria Area Plants. The MSHCP requires that projects avoid 90% of areas providing long-term conservation value for applicable species when NEPSSA and/or CAPSSA species are detected. If avoidance is infeasible, then mitigation must be provided and a DBESP is required. Impacts to special-status plants are reduced to below a level of significance through compliance with the biological requirements of the MSHCP. The Conservation areas where these species occur, will be avoided, and conserved. No sensitive plants were identified within the Project Footprint or Offsite areas.

As noted within Section 5, MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to Project grading. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to safeguard 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 safeguard that no owls have colonized the Project Footprint or Offsite areas in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the Project Footprint or Offsite areas 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, including the possibility of preparing a Burrowing Owl Protection and

Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur but the Project Footprint or Offsite areas are left undisturbed for more than 30 days, a pre-construction survey will again be necessary to safeguard burrowing owl has not colonized the area since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

Pursuant to Volume I, Section 6.3.2 of the MSHCP, focused surveys were completed for the LAPM. A total of 14 LAPM were detected during focused surveys. However, it was determined that there would be no significant impact to the LAPM, as the Project Footprint, and Conservation areas do not contain long-term conservation value for this species.

The LAPM were distributed along the Project's dirt roads, development boundaries and away from the active agricultural fields. LAPM does not currently occur within highly impacted agricultural fields. Densities within the Project Footprint and Conservation areas are consistent with documented densities for this species of less than 2 animals per hectare. Based on current and past surveys, and data base records the LAPM, LAPM occurs sporadically in the area, and in trace densities. The aforementioned road network might allow for some marginal connectivity to other potential and documented LAPM habitat in the region – albeit tenuous. Movement of these animals within the Project Footprint will not be affected by Project implementation any more than they have been - by ongoing agricultural activities, in this area for decades. Therefore, the LAPM population within the Project Footprint is small, limited in area of distribution, relatively isolated and of limited value. Furthermore, animals within the Conserved areas will not be impacted by Project implementation

Based on the information noted above, the Project Footprint and Offsite areas do not have long-term conservation value for LAPM. As a result, impact to the LAPM would not be considered a significant impact. Additionally, a habitat assessment was conducted for the LAPM within the Offsite areas and it was determined that no suitable habitat for this species was present.

6.6 Conclusion of MSHCP Consistency

As outlined within this report, the Project will be consistent with the biological requirements of the MSHCP. More specifically, as the MSHCP pertains to the Project Footprint, Offsite and Conservation Areas 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).

7.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. The Jepson Manual: Vascular Plants of California. University of California Press. 1,568 pp.

Bleich, V.C. and O.A. Schwartz. 1974. Western range extension of Stephens' kangaroo rat (Dipodomys stephensi), a threatened species. California Department of Fish and Game 60:208-210.

Burt, W. H. and R. P. Grossenheider. 1980. A Field Guide to Mammals: North America; North of Mexico. New York, NY: Houghton Mifflin Company.

California Department of Fish and Wildlife. 2008. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. Dated September 2008.

Cameron, G.N. and D.G. Rainey. 1972. Habitat utilization by Neotoma lepida in the Mojave Desert. Journal of Mammalogy 53:251-266.

[CDFG] California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. State of California, California Natural Resources Agency, Department of Fish and Game. Dated November 24, 2009.

[CDFW] California Department of Fish and Wildlife. 2020 and 2021. Special Animals. State of California Resources Agency, Sacramento, California.

[CDFW] California Department of Fish and Wildlife. 2020 and 2021. State and Federally Listed Endangered and Threatened Animals of California. State of California Resources Agency. Sacramento, California.

[CDFW] California Department of Fish and Wildlife. 2020 and 2021. California Natural Diversity Database: RareFind 5. Records of occurrence for U.S.G.S. 7.5- minute Quadrangle maps: Perris and surrounding quads. California Department of Fish and Wildlife, State of California Resources Agency. Sacramento, California. [Accessed: October 2020].

[CNPS] California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, CA. x + 388pp.

[CNPS] California Native Plant Society, Rare Plant Program. 2020 and 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [Accessed: October 2020].

[Dudek] Dudek & Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Volumes 1 – 5. Prepared for the Transportation and Land Management Agency, County of Riverside, California as part of the Riverside County Integrated Project. Adopted June 2003, currently available at http://www.rcip.org/conservation.htm.

Dunn, J.P., J.A. Chapman, and R.E. Marsh. 1982. Jackrabbits. In J.A. Chapman and G.A. Feldhamer (eds.) Mammals of North America, pp 124-145.

Elbroch, M. 2003. Mammal Tracks & Sign, A Guide to North American Species. Mechanicsburg, PA: Stackpole Books.

ESD California Department of Fish and Game (ESD-CDFG 1994). 1994. A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607.

Garrett, K. and J. Dunn. 1981. Birds of Southern California: Status and Distribution. Los Angeles Audubon Society. 407 pp.

GISD. 2023. MSHCP Transportation and Land Management Agency Geographic Information Services Database.

Glenn Lukos Associates, Inc. (GLA). 2022a. Biological Technical Report for Stoneridge Commerce Center. February 24, 2022.

Glenn Lukos Associates, Inc. (GLA), 2022b. Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. February 4, 2022.

Halfpenny, J.C. 2000. Scats and Tracks of the Desert Southwest, A Field Guide to the Signs of 70 Wildlife Species. Helena, MT: Falcon Publishing, Inc.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Wildlife.

Hunsaker & Associates. 2021. Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021.

MacWhirter, R. B., and K. L. Bildstein. 1996. Northern Harrier (Circus cyaneus). In The Birds of North America, No. 210 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.

McClenaghan, L.R. Jr. 1983. Notes on the population ecology of Perognathus fallax in southern California. The Southwestern Naturalist 28:429-436.

[NRCS] Natural Resources Conservation Service. 2020 and 2021. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. [Accessed: October 2020 and August 2021].

[RCHCA] Riverside County Habitat Conservation Agency. 1996. Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California. Riverside, CA: Riverside County Habitat Conservation Agency.

RCA 2032, 2023. Regional Conservation Authority GIS Data Mapping Tool, https://www.wrc-rca.org/rcamaps/.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation. Second Edition. California Native Plant Society Press. Sacramento, California.

Sibley, D.A. 2000. National Audubon Society. The Sibley Guide to Birds. New York, NY: Alfred A. Knopf, Inc.

South Coast Wildlands. 2008. Regional South Coast Missing Linkages Project Report.

Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. New York, NY: Houghton Mifflin.

[USDA-NRCS] U.S. Department of Agriculture-Natural Resources Conservation Service. 2023. Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO).

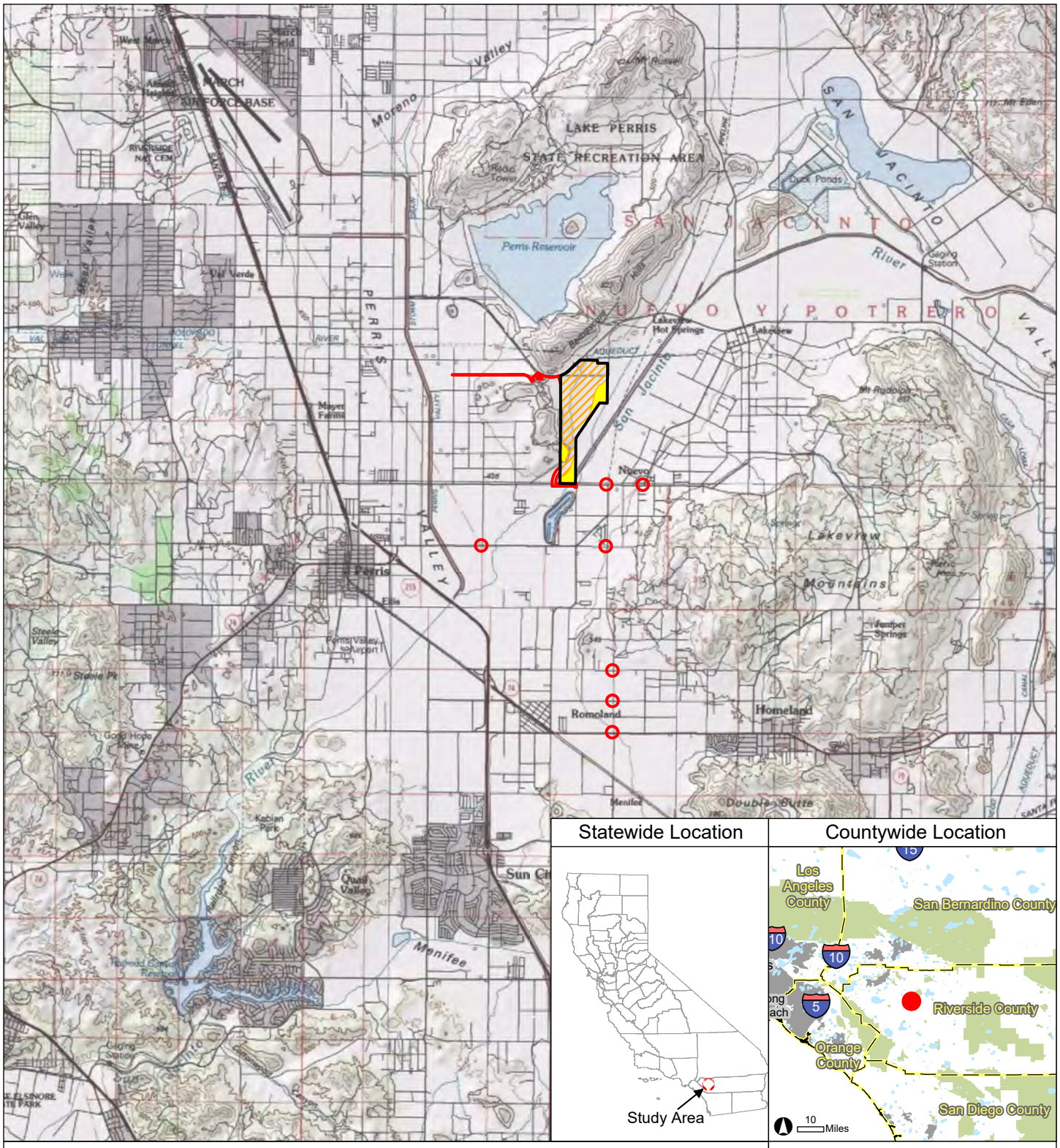
[USFWS] U.S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. Sacramento, CA: U.S. Fish and Wildlife Service. Unpublished memorandum, dated January 2000.

[USFWS] U.S. Fish and Wildlife Service. 2000. Endangered and threatened wildlife and plants; Proposed determination of critical habitat for the coastal California gnatcatcher; Proposed rule. Federal Register 65: 5946 - 5976. February 7, 2000.

Zeiner, D. C., W., F. Laudenslayer, Jr., K. E. Mayer, M. White. Editors. 1990. California's Wildlife. Volume 2. Birds. State of California, Department of Fish and Game. Sacramento, California. 731 pp.

Appendix A Figures

Figure 1 Regional Location



Project Site
Offsite
Project Footprint
Conservation Area

Interstate or State Highway (inset)
County Boundary (inset)
Urban Area (inset)
Park or National Forest (inset)
Water Body (inset)

0 6,000 12,000 Feet
1 inch = 12,000 feet

Data Sources:
- Bureau of Land Management Cadastral GIS 2015
- USGS 7.5-minute quadrangle map
- ESRI US Topo Maps accessed Jun 2023

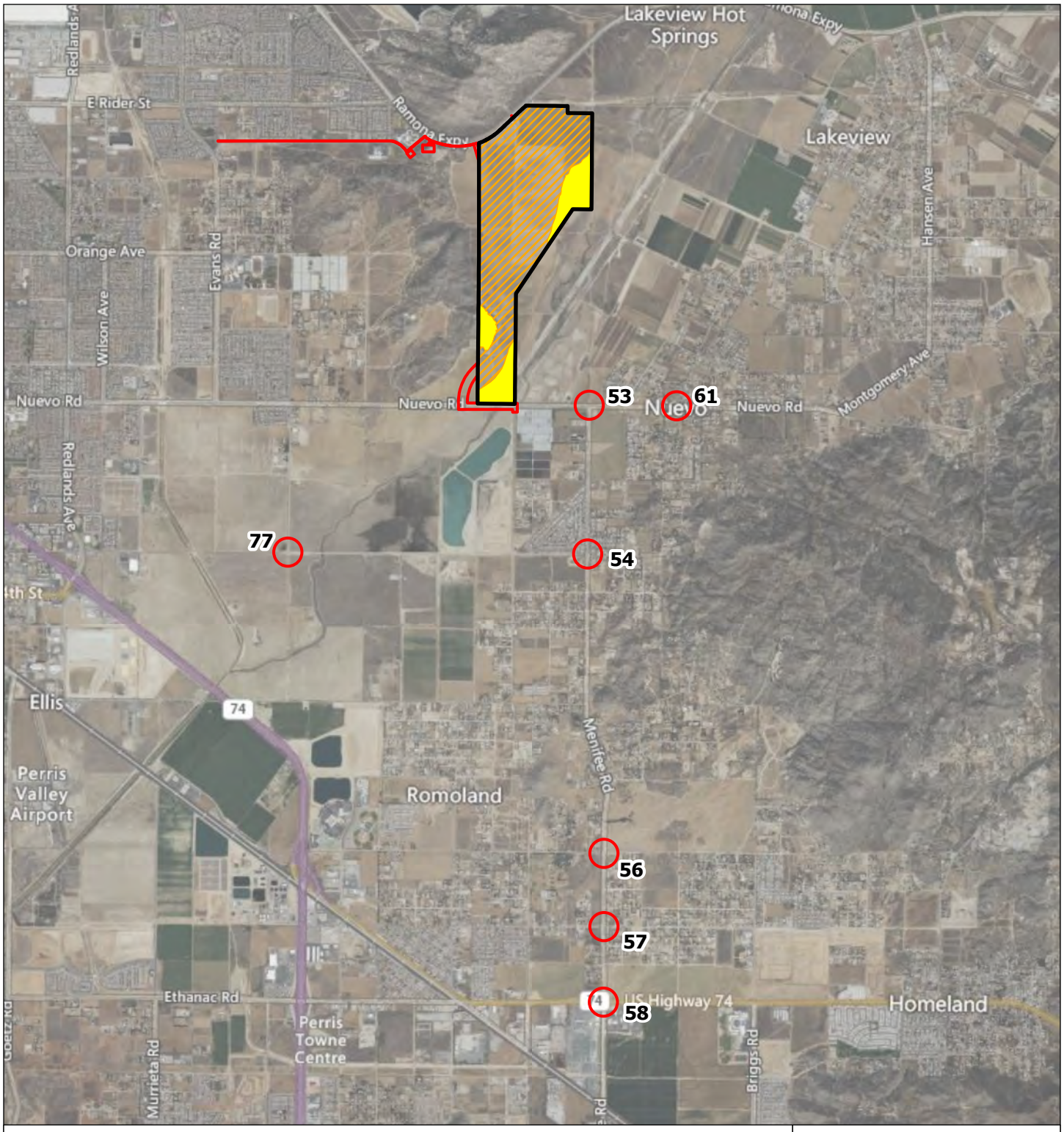
Map Prepared: 6-27-23

Prepared by:
NOREAS
Environmental Engineering and Science

The Study Area is located in Riverside County on the Perris and Romoland USGS 7.5-minute quadrangle maps;
San Bernardino Meridian, Township 4S, Range 3W, in Sections 00, 25, 26, 28, 33, 34, 35, 36;
Township 5S, Range 3W, in Sections 01, 02, 11, 12, 13, 14
Center coordinates (WGS 1984): 117.178°W 33.78°N

Figure 1. Regional Location

Figure 2 Site Vicinity



Project Site (582.64 ac)
Offsite (153.42 ac)
Conservation Area (97.11 ac)
Project Footprint (485.53 ac)

0 2,500 5,000 Feet

1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 2. Site Vicinity

Figure 3 MSHCP Criteria Cells

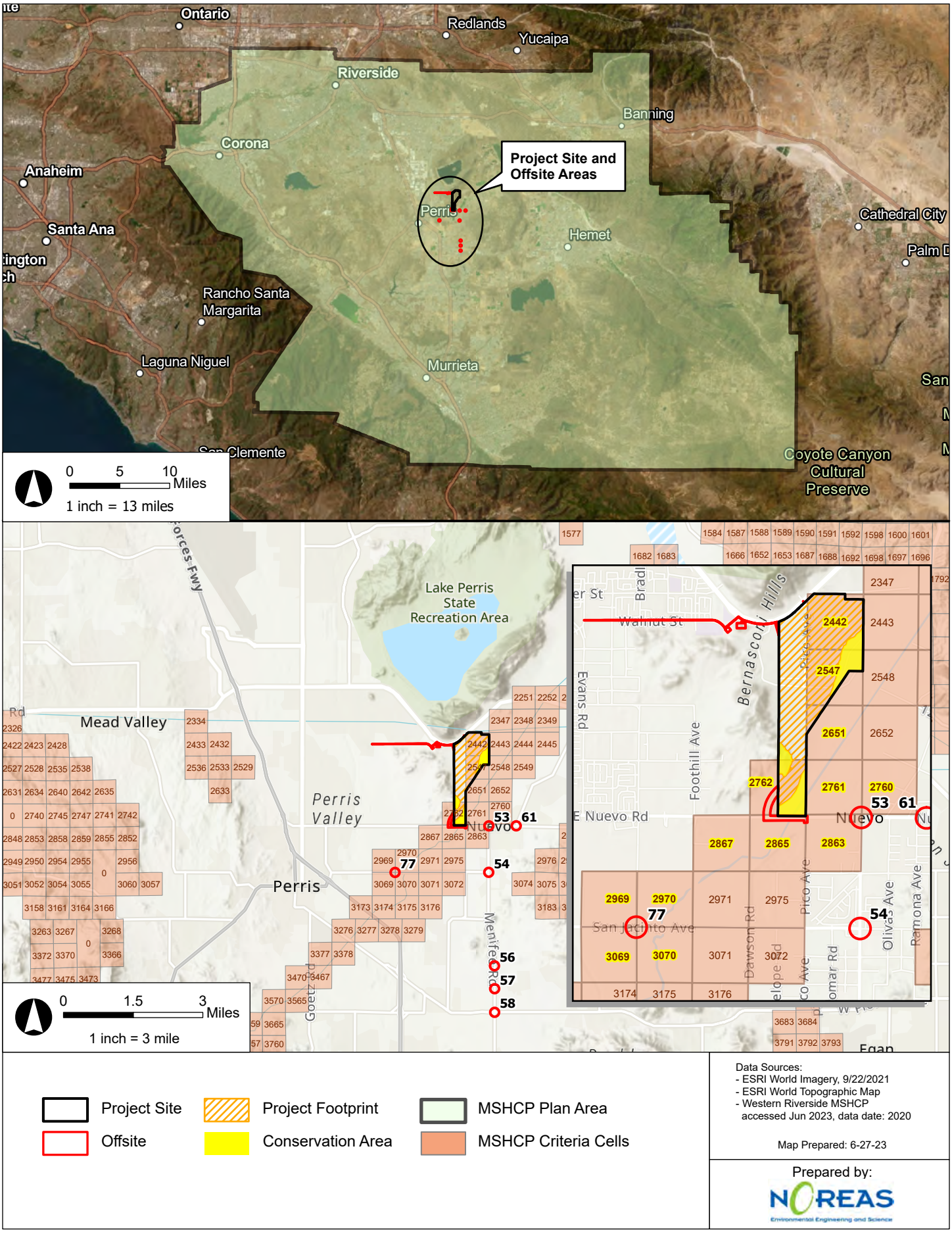


Figure 3. MSHCP Criteria Cells

Figure 4 Cores, Linkages, and Conserved Lands

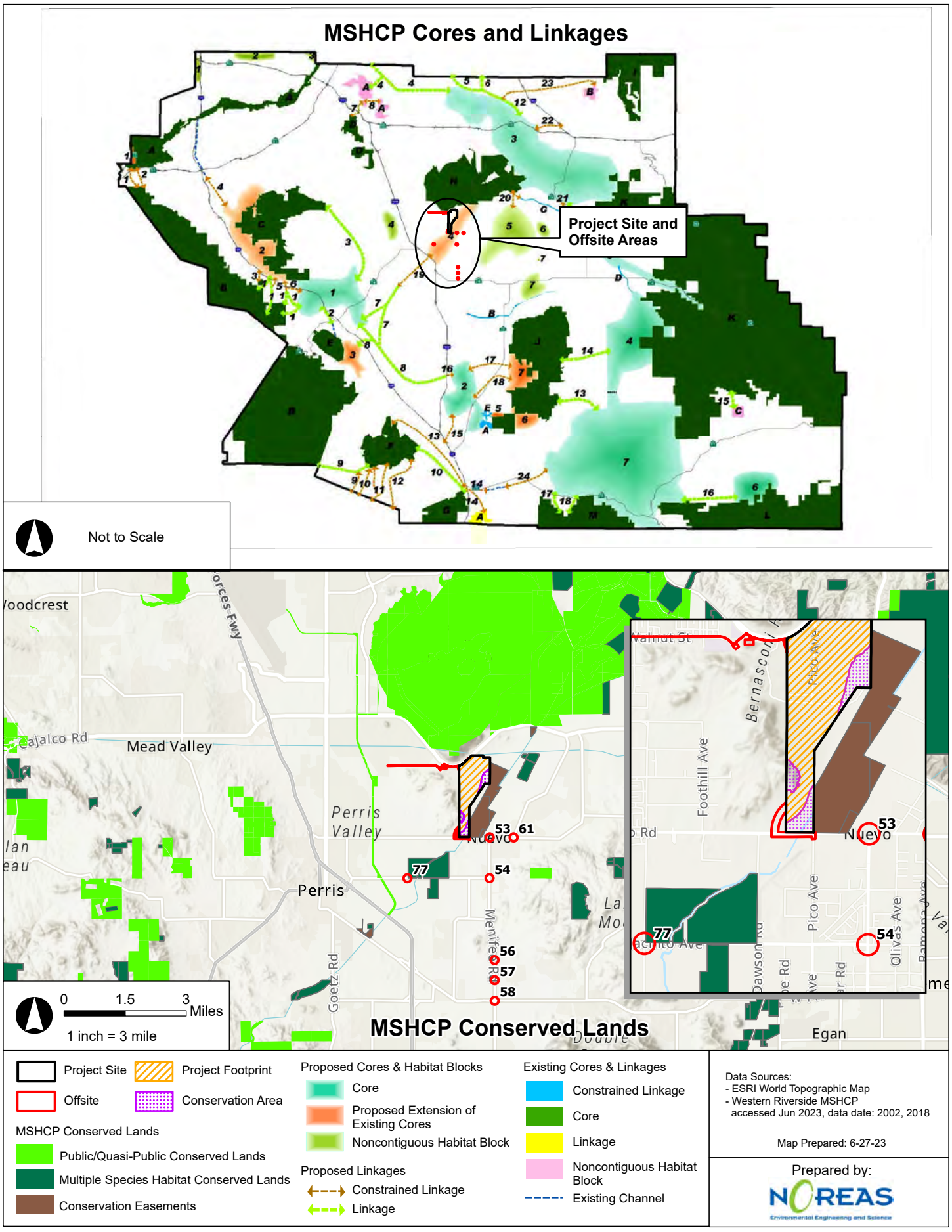


Figure 4. Cores, Linkages, and Conserved Lands

Figure 5 MSHCP Species Survey Areas

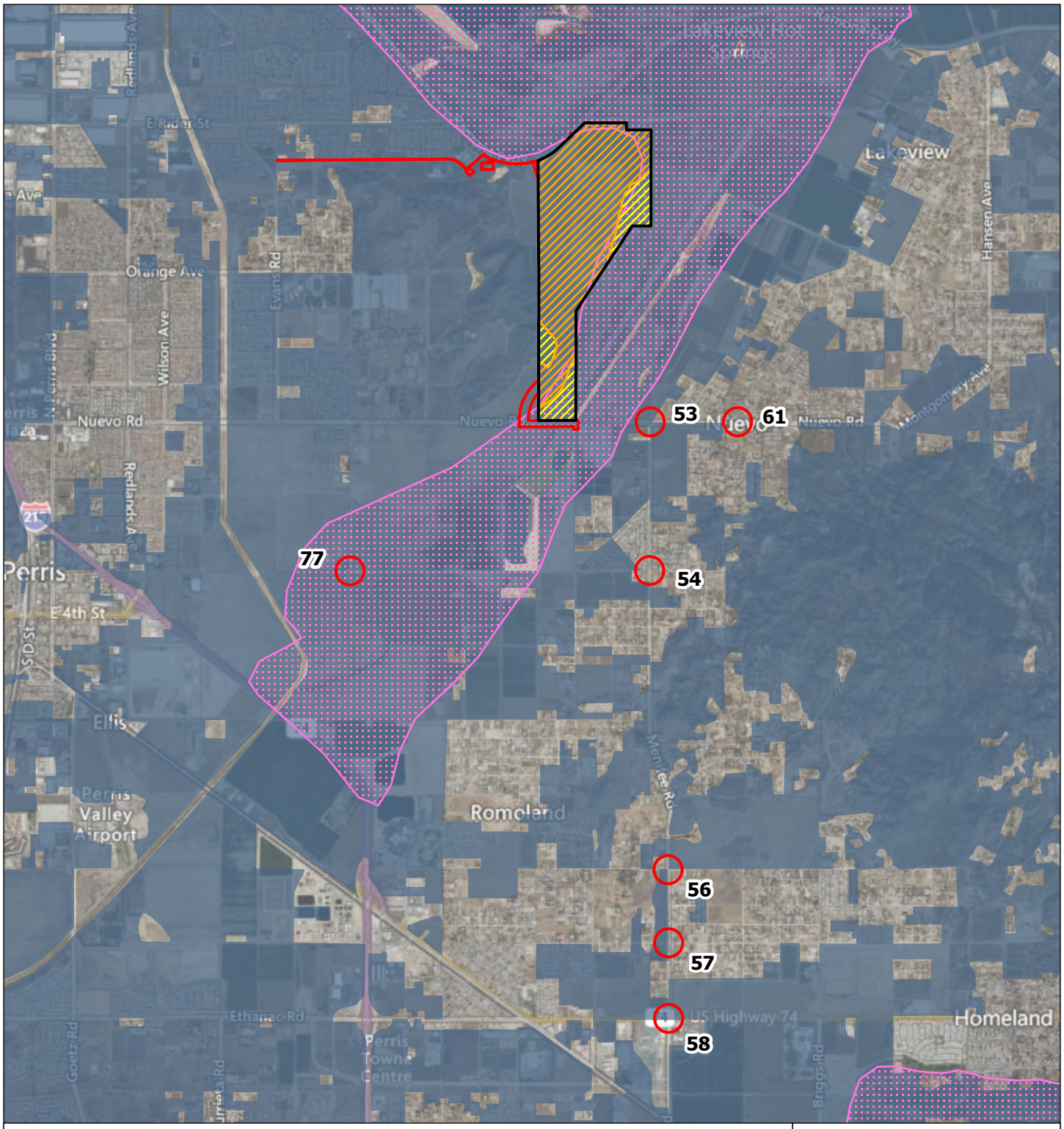
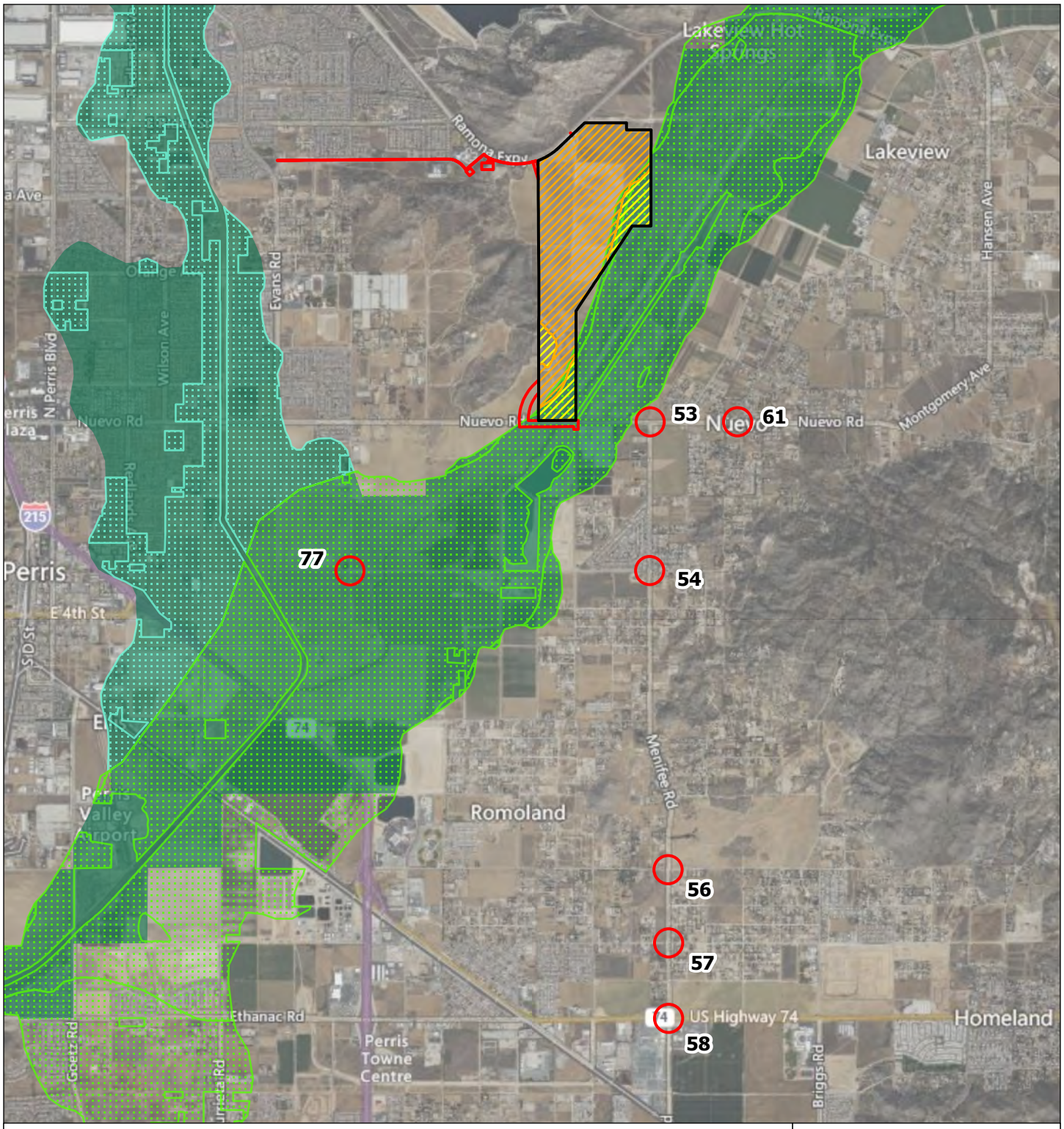


Figure 5a. MSHCP Species Survey Areas



Project Site
Offsite
Project Footprint
Conservation Area

Species Survey Areas

Narrow Endemic Plants

Munz's onion, San Diego ambrosia, Many-stemmed dudleya, Spreading navarretia, California Orcutt grass, Wrights's trichocoronis

San Diego ambrosia, spreading navarretia, California Orcutt grass, Wright's trichocoronis

Criteria Area Species

San Jacinto Valley crownscale, Parish's brittlescale, Davidson's saltscale, Thread-leaved brodiaea, Round-leaved filaree, Smooth tarplant, Coulter's goldfields, Little mousetail, Mud nama

0 2,500 5,000 Feet

1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023
- Western Riverside Co Regional Conservation Authority accessed Aug 2023

Map Prepared: 8-2-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 5b. MSHCP Species Survey Areas

Figure 6 RCA MSHCP Vegetation 2012

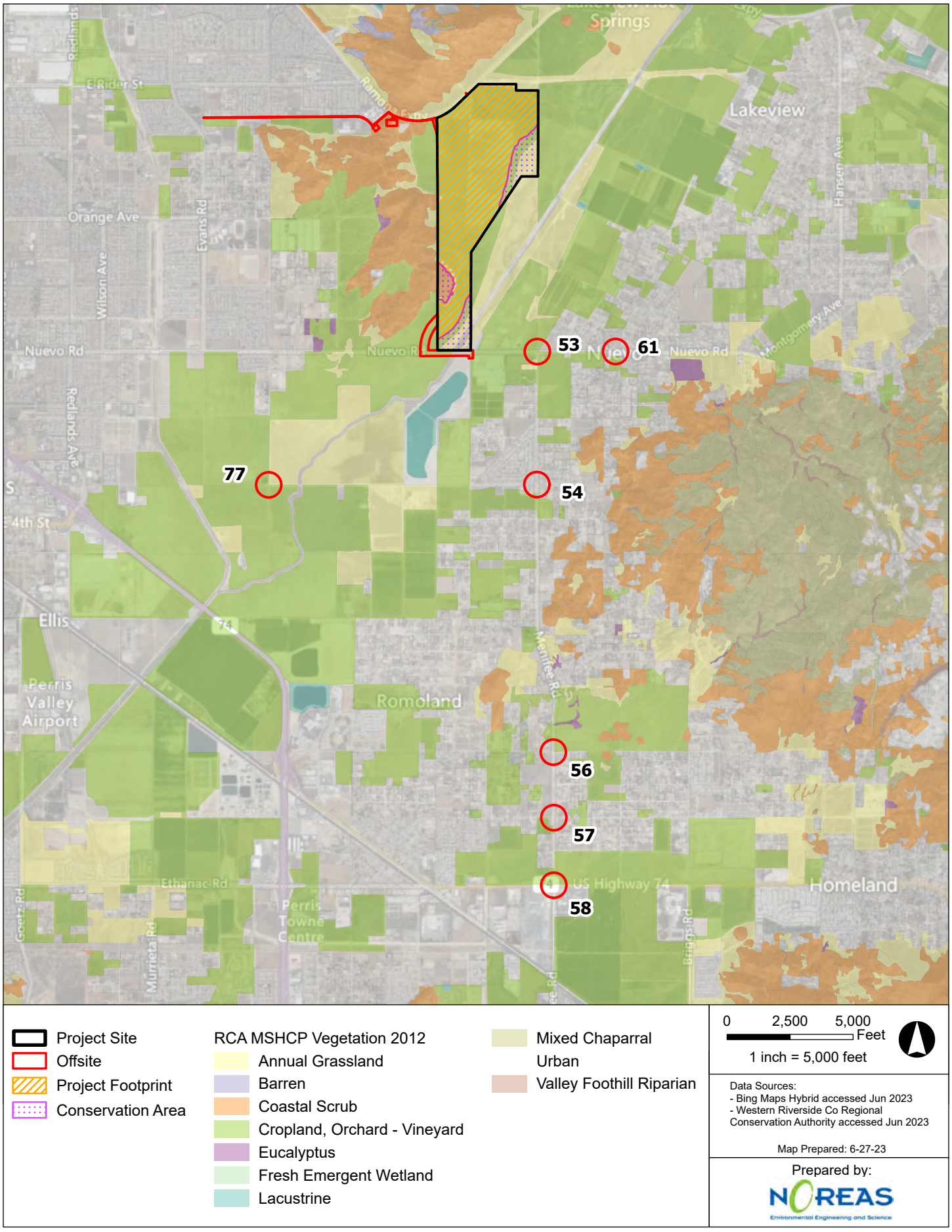
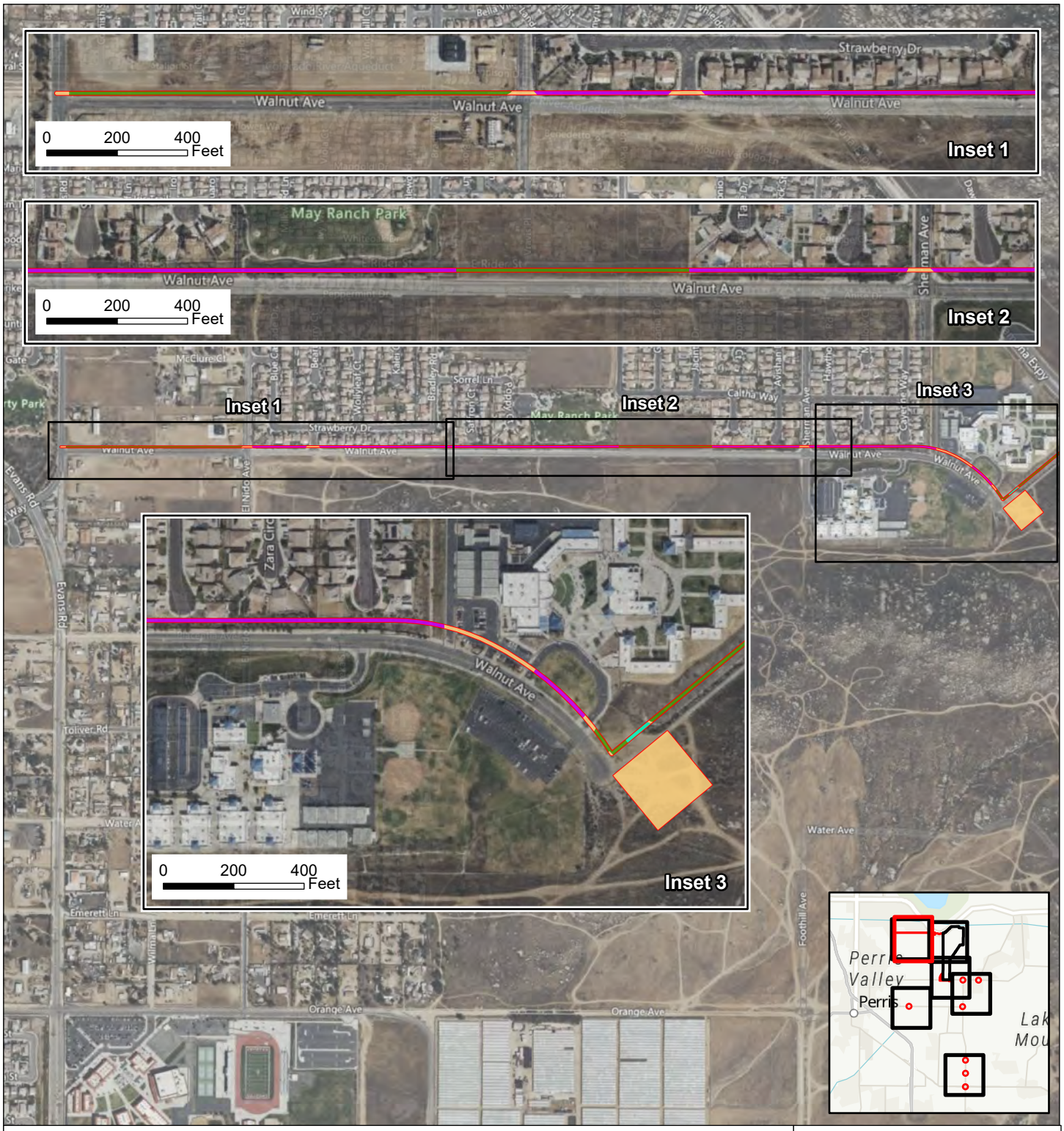


Figure 6. RCA MSHCP Vegetation 2012

Figure 7 Vegetation Communities 2023



Offsite

Vegetation Type

- Developed/Disturbed
- Ornamental
- Riversidean Sage Scrub
- Ruderal

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 7a. Vegetation Communities

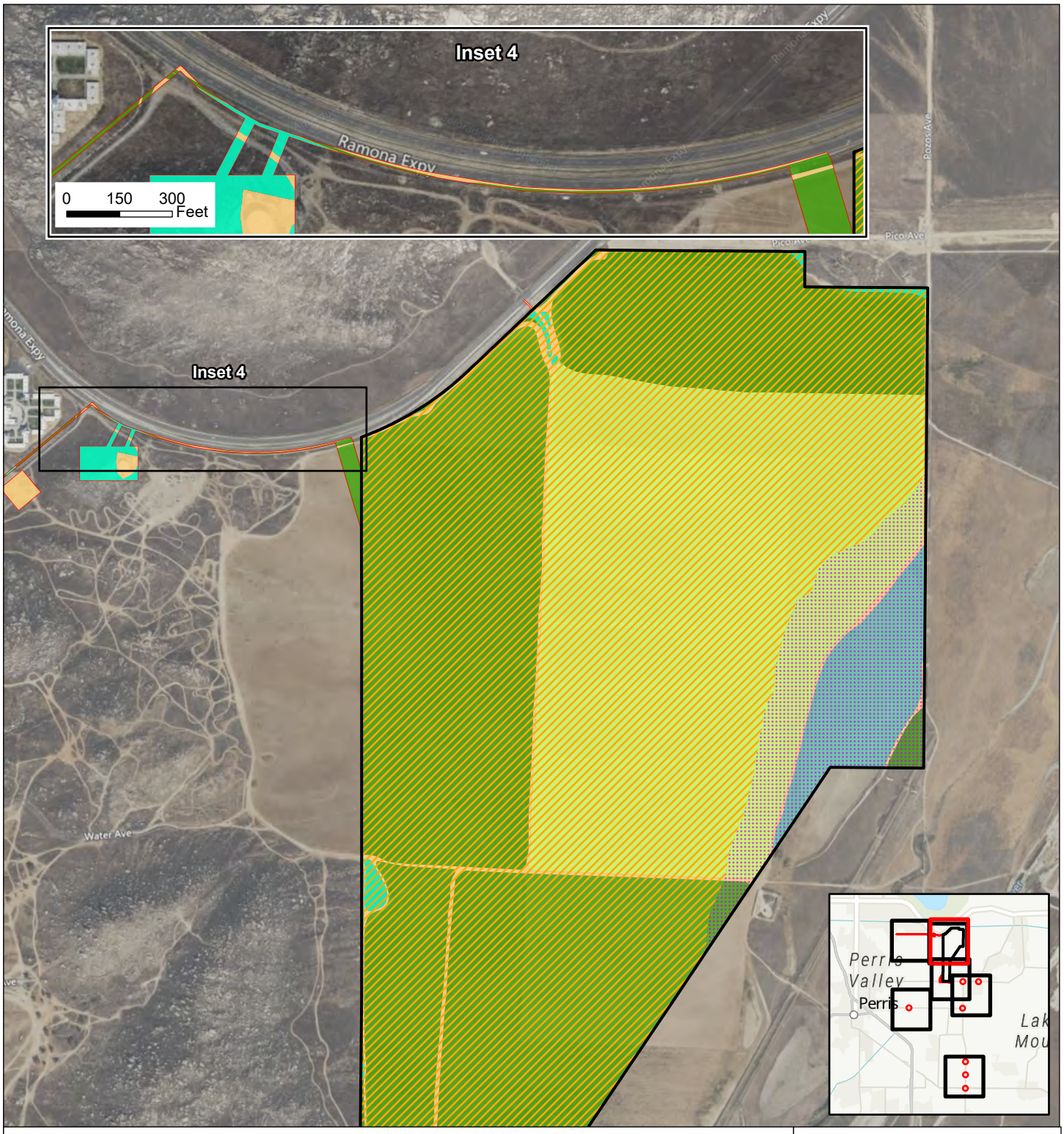


Figure 7b. Vegetation Communities

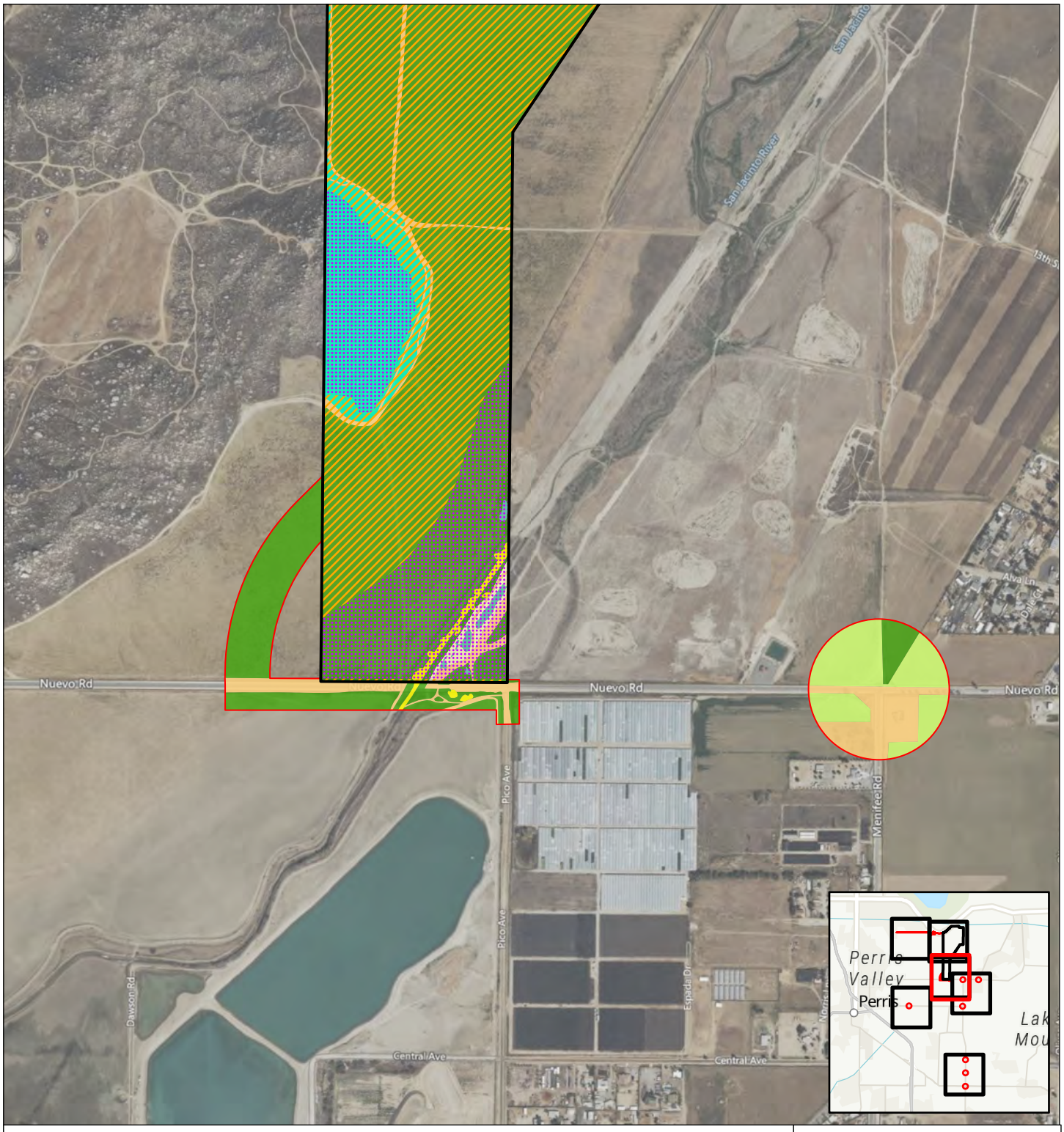


Figure 7c. Vegetation Communities

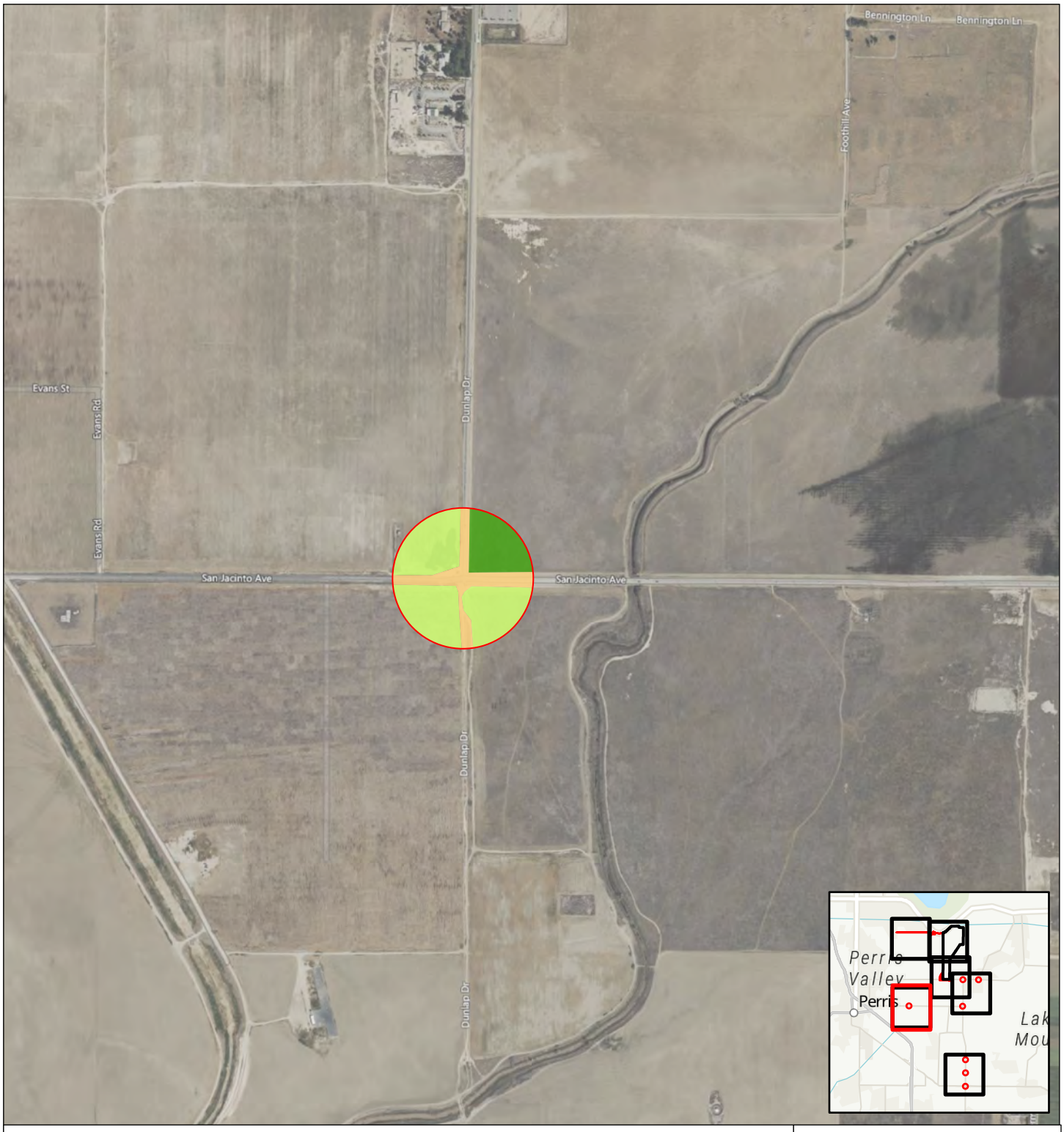
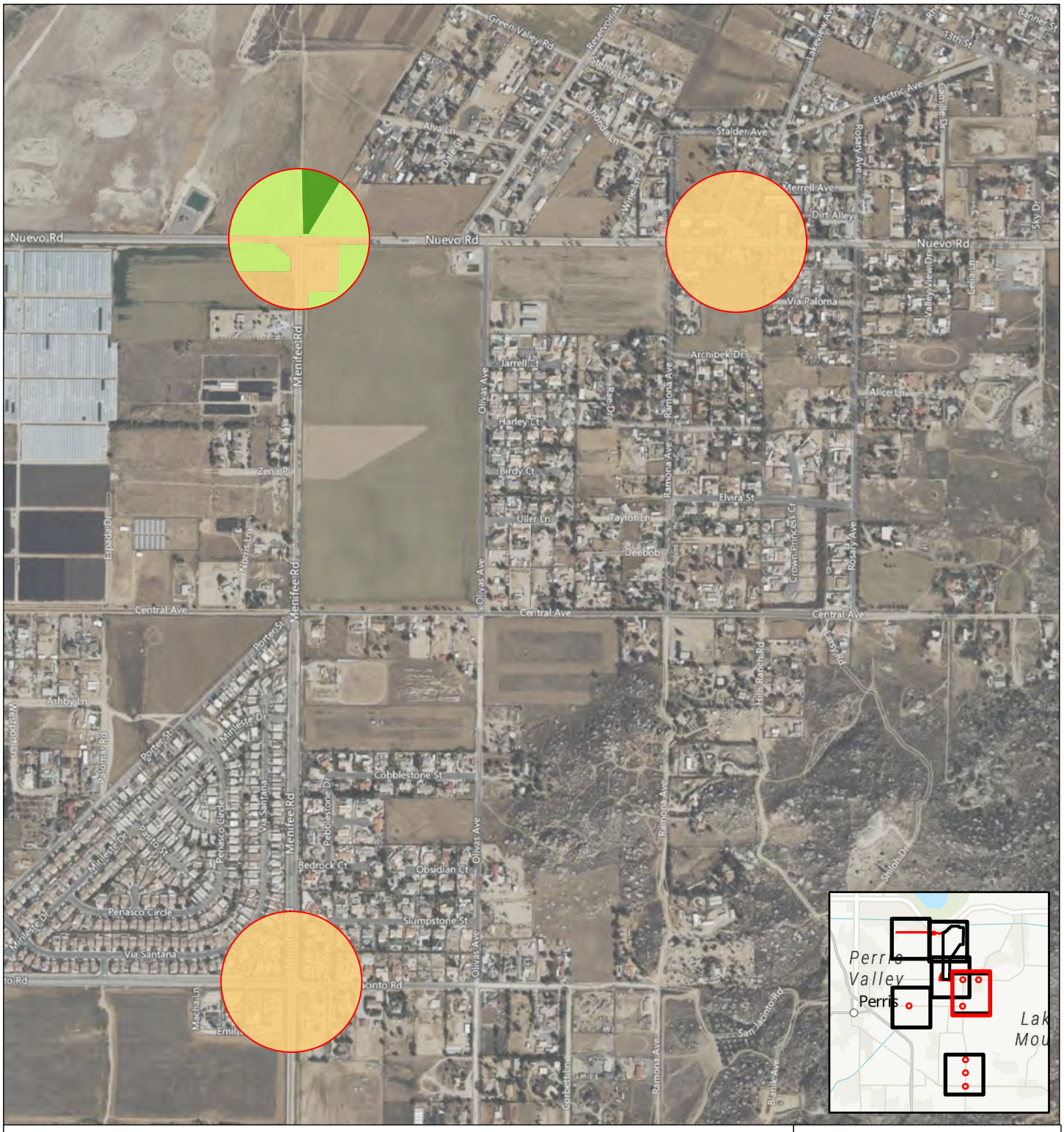


Figure 7d. Vegetation Communities



Project Site
Conservation Area
Project Footprint
Offsite

Vegetation Type
Agricultural
Developed/Disturbed
Ruderal

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 7e. Vegetation Communities

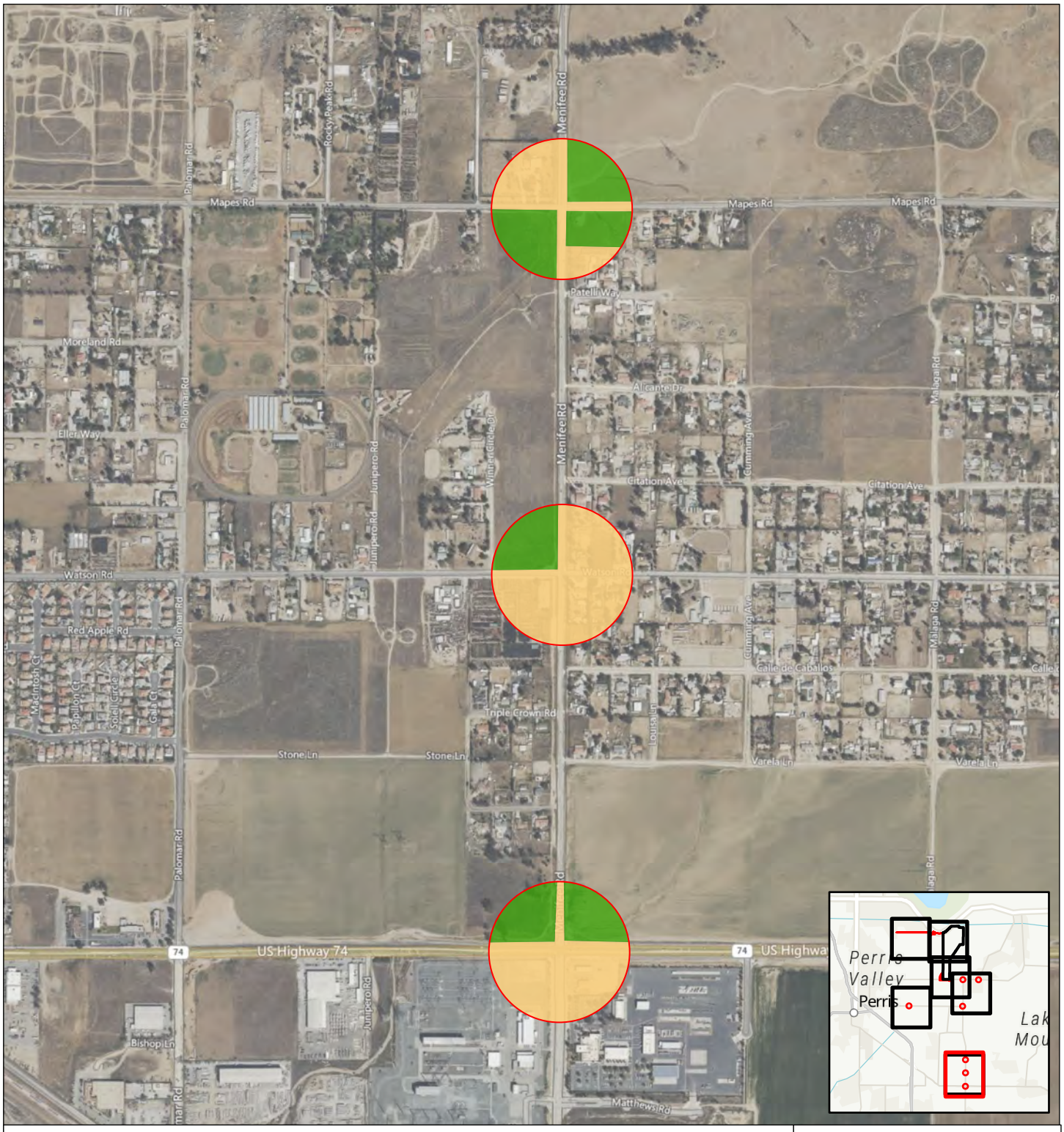
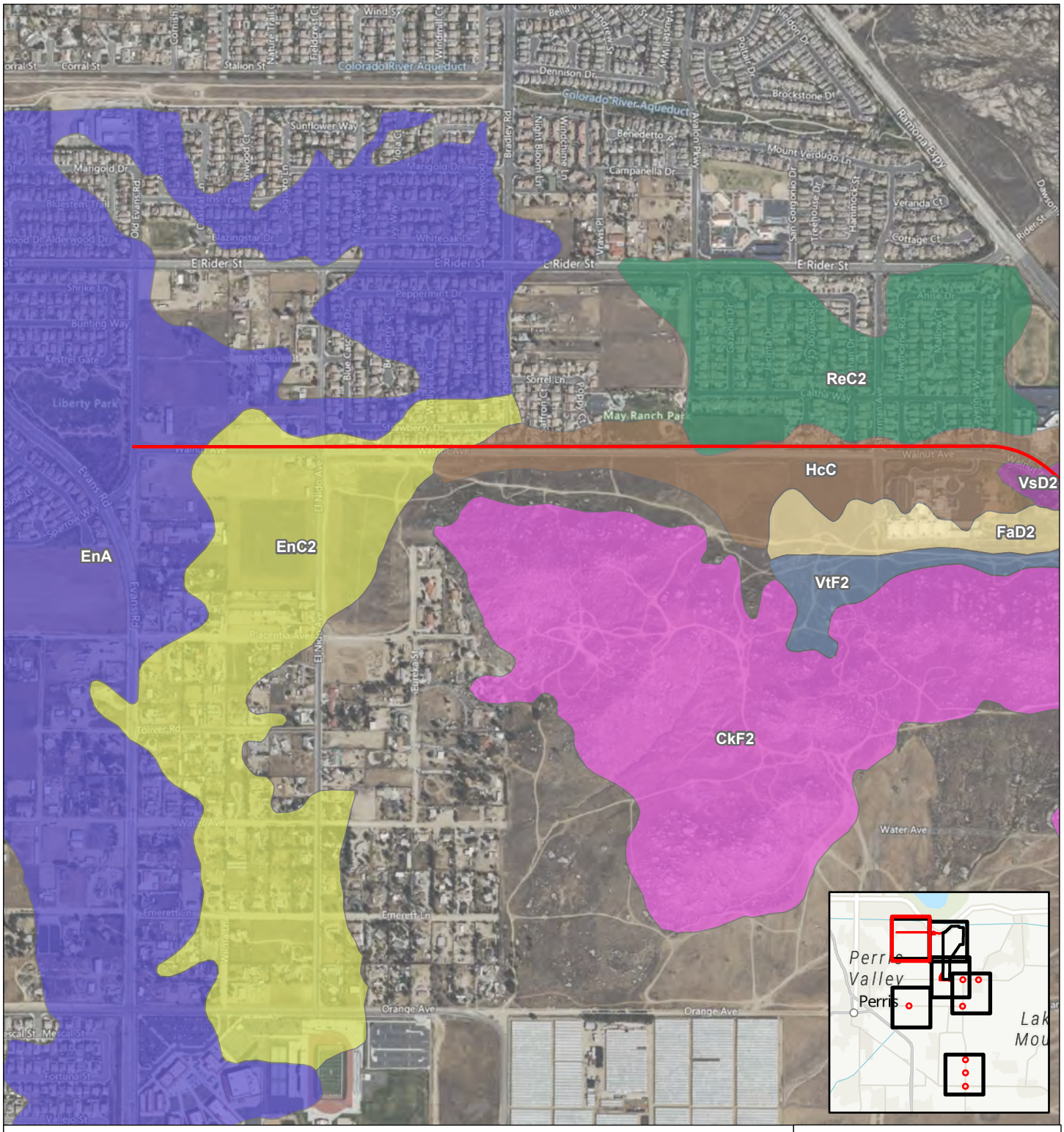


Figure 7f. Vegetation Communities

Figure 8 Soils Map



Offsite

SSURGO Soils

- ReC2,Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- VsD2,Vista coarse sandy loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2,Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 8a. Soils Map

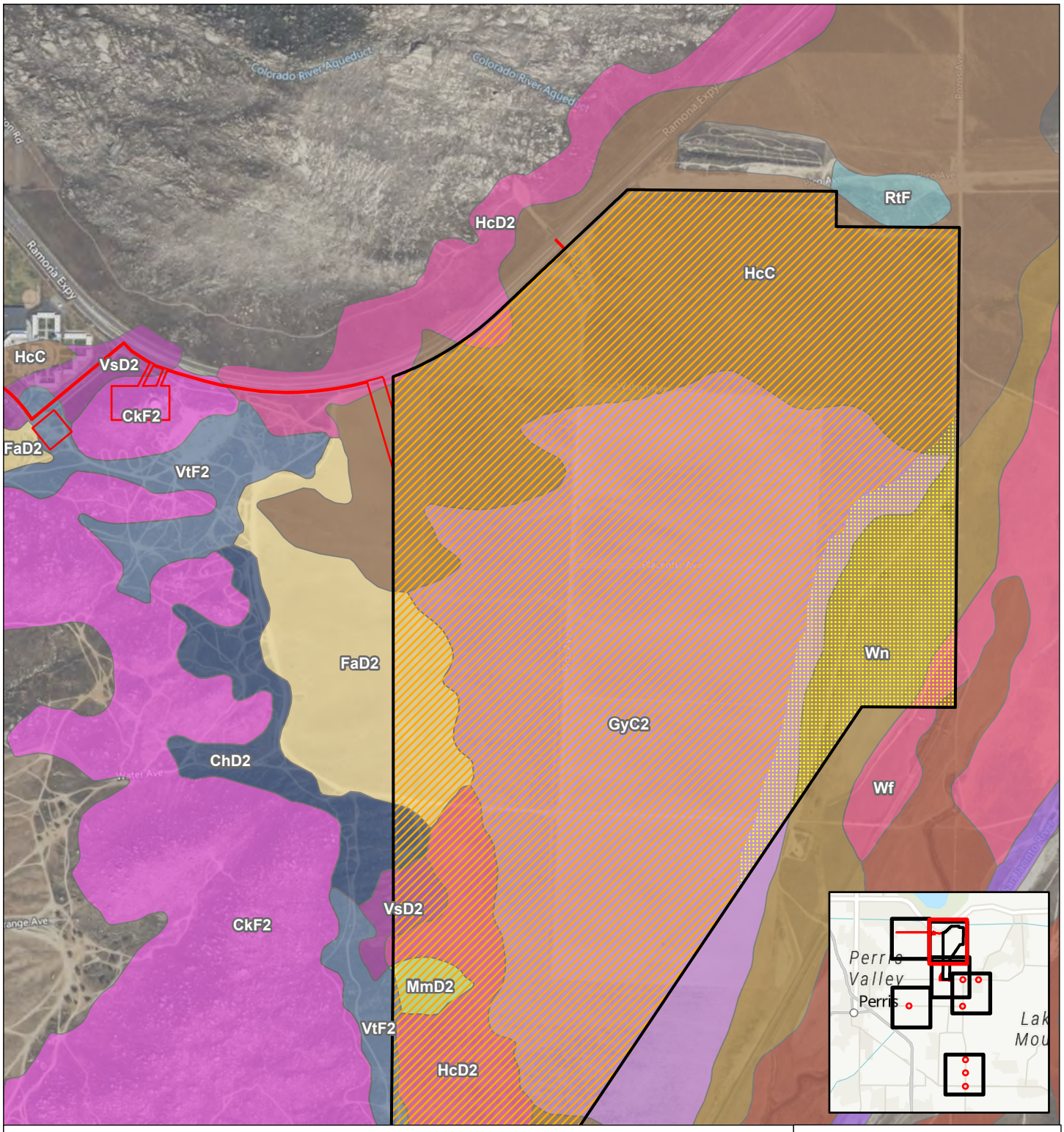


Figure 8b. Soils Map

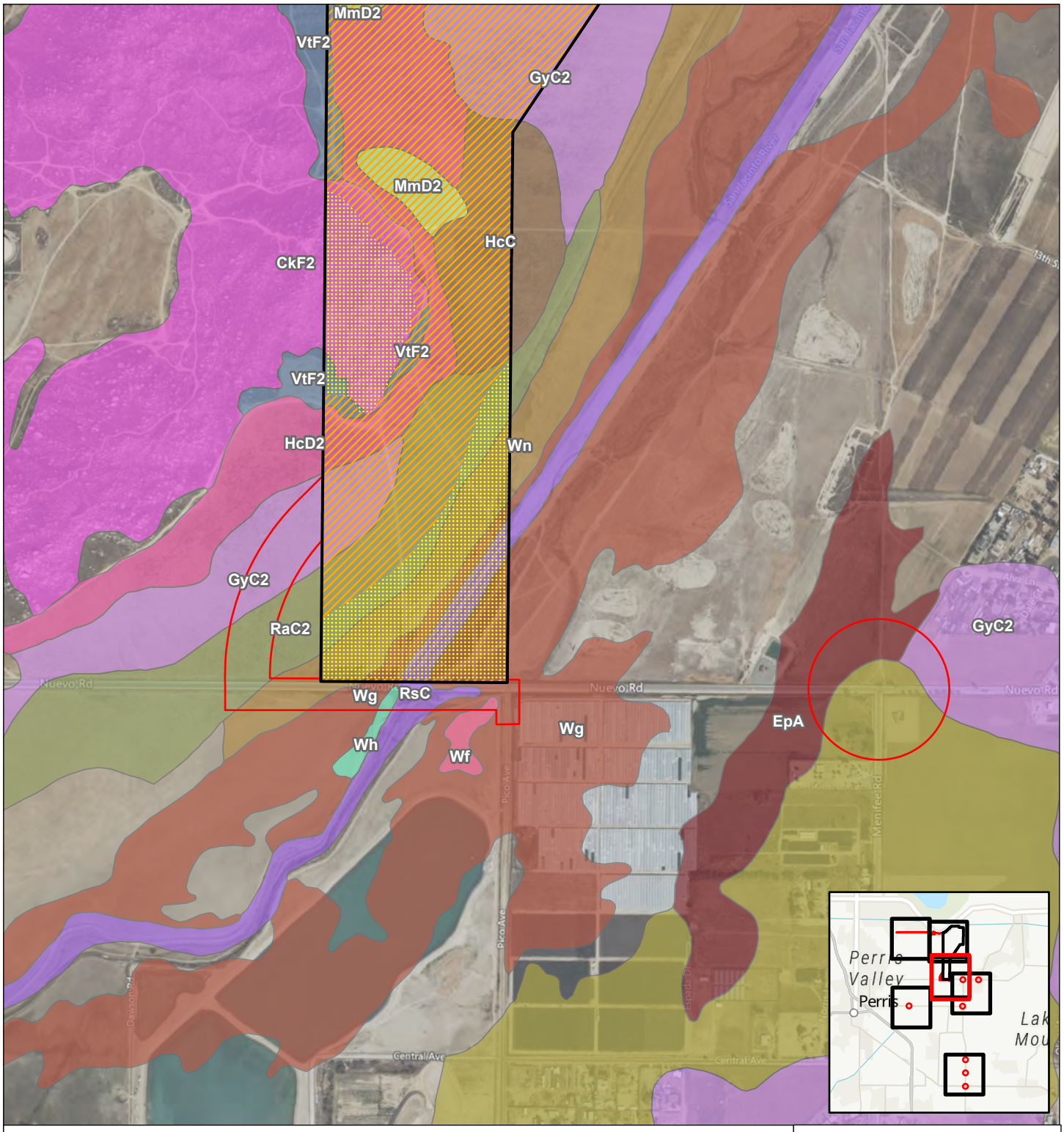
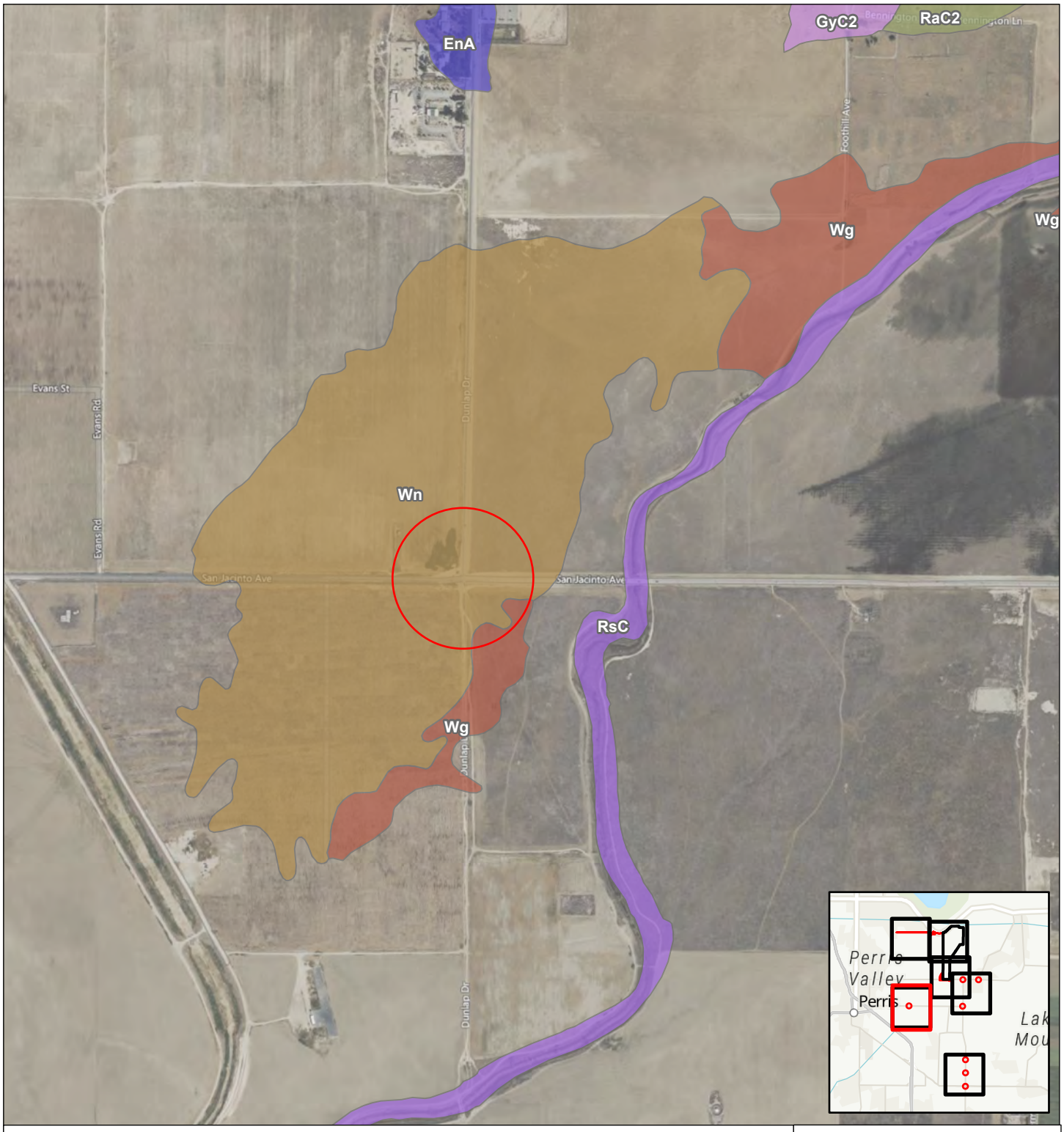


Figure 8c. Soils Map



Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 8d. Soils Map

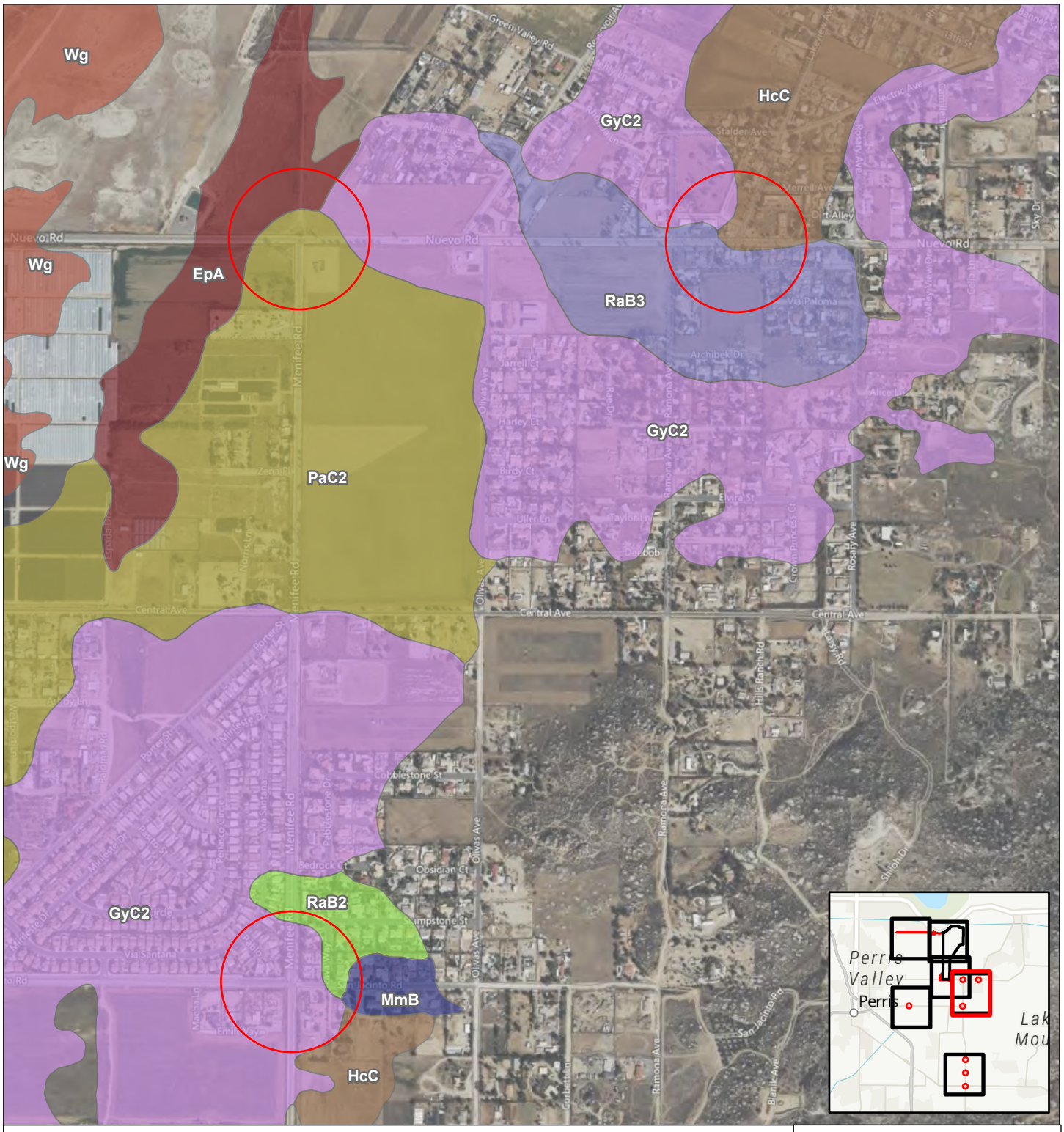
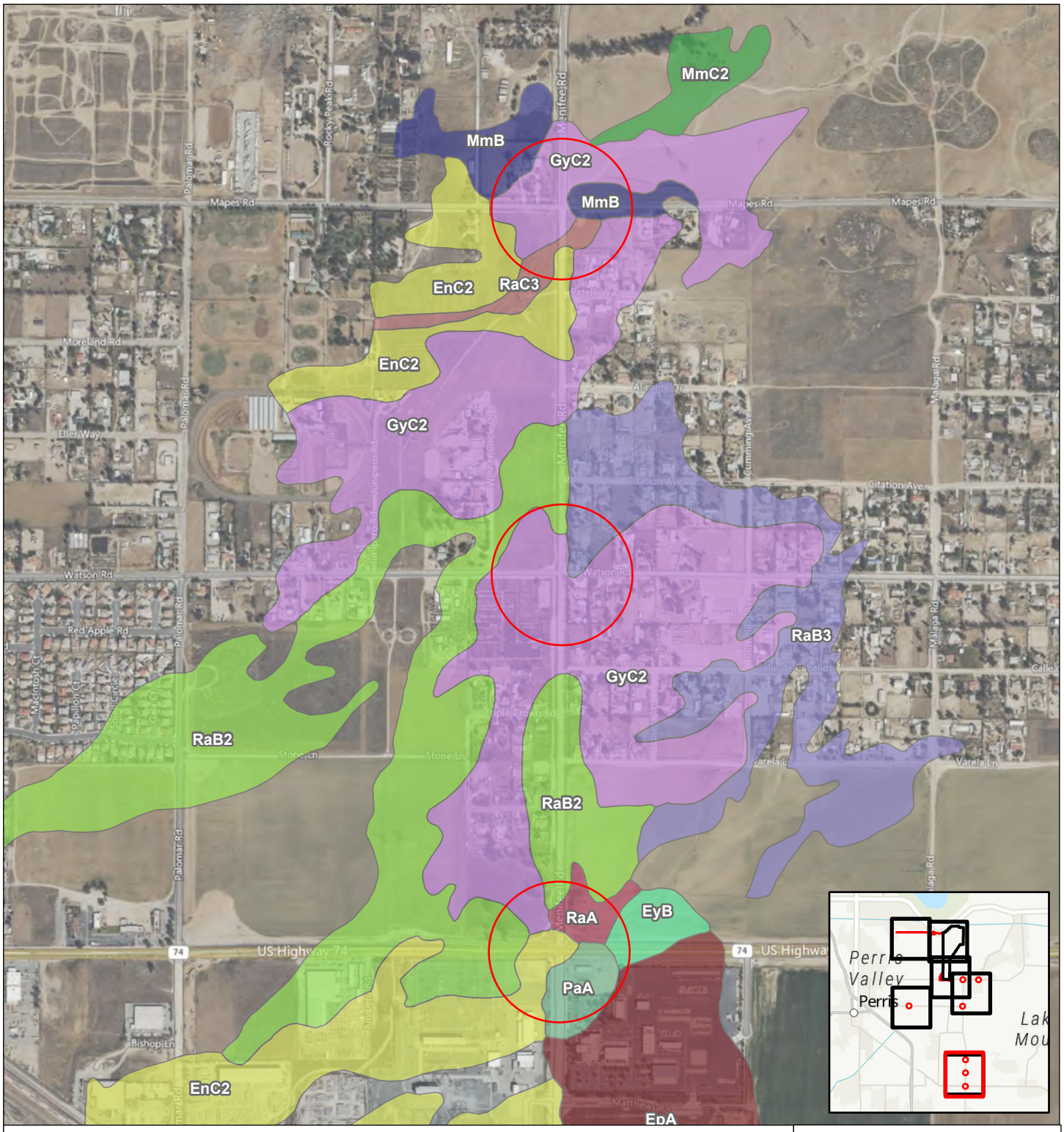


Figure 8e. Soils Map



Offsite

SSURGO Soils

- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes
- MmC2,Miramar coarse sandy loam, sloping, eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 8f. Soils Map

Figure 9 Literature Review

Special-Status Species Occurrences

Map Code	Common Name *(Scientific Name)*	
	Plants	
P1	Alvin Meadow bedstraw	*Galium californicum ssp. primum*
P2	California Orcutt grass	*Orcuttia californica*
P3	California screw moss	*Tortula californica*
P4	chaparral ragwort	*Senecio aphanactis*
P5	chaparral sand-verbena	*Abronia villosa var. aurita*
P6	Coulter's goldfields	*Lasthenia glabrata ssp. coulteri*
P7	Davidson's saltscale	*Atriplex serenana var. davidsonii*
P8	intermediate mariposa-lily	*Calochortus weedii var. intermedius*
P9	Jaeger's milk-vetch	*Astragalus pachypus var. jaegeri*
P10	little mousetail	*Myosurus minimus ssp. apus*
P11	long-spined spineflower	*Chorizanthe polygonoides var. longispina*
P12	many-stemmed dudleya	*Dudleya multicaulis*
P13	marsh sandwort	*Arenaria paludicola*
P14	mud nama	*Nama stenocarpa*
P15	Munz's onion	*Allium munzii*
P16	Nevin's barberry	*Berberis nevinii*
P17	Palmer's grapplinghook	*Harpagonella palmeri*
P18	Parish's brittlescale	*Atriplex parishii*
P19	Parry's spineflower	*Chorizanthe parryi var. parryi*
P20	Payson's jewelflower	*Caulanthus simulans*
P21	Plummer's mariposa-lily	*Calochortus plummerae*
P22	Robinson's pepper-grass	*Lepidium virginicum var. robinsonii*
P23	salt marsh bird's-beak	*Chloropyron maritimum ssp. maritimum*
P24	salt spring checkerbloom	*Sidalcea neomexicana*
P25	San Bernardino aster	*Symphyotrichum defoliatum*
P26	San Diego ambrosia	*Ambrosia pumila*
P27	San Jacinto Valley crownscale	*Atriplex coronata var. notatior*
P28	slender-horned spineflower	*Dodecahema leptoceras*
P29	smooth tarplant	*Centromadia pungens ssp. laevis*
P30	Southern Coast Live Oak Riparian Forest	*Southern Coast Live Oak Riparian Forest*
P31	Southern Cottonwood Willow Riparian Forest	*Southern Cottonwood Willow Riparian Forest*
P32	Southern Riparian Scrub	*Southern Riparian Scrub*
P33	Southern Sycamore Alder Riparian Woodland	*Southern Sycamore Alder Riparian Woodland*
P34	Southern Willow Scrub	*Southern Willow Scrub*
P35	spreading navarretia	*Navarretia fossalis*
P36	thread-leaved brodiaea	*Brodiaea filifolia*
P37	woven-spored lichen	*Texosporium sancti-jacobi*
P38	Wright's trichocoronis	*Trichocoronis wrightii var. wrightii*
	Invertebrates	
I1	Busck's gallmoth	*Eugnosta busckana*
I2	Crotch bumble bee	*Bombus crotchii*
I3	Delhi Sands flower-loving fly	*Rhaphiomidas terminatus abdominalis*
I4	Desert cuckoo wasp	*Ceratochrysis longimala*
I5	Icenogle's socalchemmis spider	*Socalchemmis icenoglei*
I6	quino checkerspot butterfly	*Euphydryas editha quino*
I7	Riverside fairy shrimp	*Streptocephalus woottoni*
I8	senile tiger beetle	*Cicindela senilis frosti*
I9	vernal pool fairy shrimp	*Branchinecta lynchi*
I10	white cuckoo bee	*Neolarra alba*
	Mammals	
M1	American badger	*Taxidea taxus*
M2	Dulzura pocket mouse	*Chaetodipus californicus femoralis*
M3	Los Angeles pocket mouse	*Perognathus longimembris brevinasus*
M4	northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*
M5	pocketed free-tailed bat	*Nyctinomops femorosaccus*
M6	San Bernardino kangaroo rat	*Dipodomys merriami parvus*
M7	San Diego black-tailed jackrabbit	*Lepus californicus bennettii*
M8	San Diego desert woodrat	*Neotoma lepida intermedia*
M9	southern grasshopper mouse	*Onychomys torridus ramona*
M10	Stephens' kangaroo rat	*Dipodomys stephensi*
M11	western mastiff bat	*Eumops perotis californicus*
M12	western yellow bat	*Lasiurus xanthinus*
	Birds	
B1	bald eagle	*Haliaeetus leucocephalus*
B2	Bell's sparrow	*Artemisiospiza belli belli*
B3	burrowing owl	*Athene cunicularia*
B4	California black rail	*Laterallus jamaicensis coturniculus*
B5	California horned lark	*Eremophila alpestris actia*
B6	coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*
B7	coastal California gnatcatcher	*Polioptila californica californica*
B8	Cooper's hawk	*Accipiter cooperii*
B9	ferruginous hawk	*Buteo regalis*
B10	golden eagle	*Aquila chrysaetos*
B11	Lawrence's goldfinch	*Spinus lawrencei*
B12	least Bell's vireo	*Vireo bellii pusillus*
B13	loggerhead shrike	*Lanius ludovicianus*
B14	long-eared owl	*Asio otus*
B15	northern harrier	*Circus hudsonius*
B16	southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*
B17	southwestern willow flycatcher	*Empidonax traillii extimus*
B18	Swainson's hawk	*Buteo swainsoni*
B19	tricolored blackbird	*Agelaius tricolor*
B20	western yellow-billed cuckoo	*Coccyzus americanus occidentalis*
B21	white-faced ibis	*Plegadis chihi*
B22	white-tailed kite	*Elanus leucurus*
B23	yellow-breasted chat	*Icteria virens*
B24	yellow-headed blackbird	*Xanthocephalus xanthocephalus*
B25	yellow warbler	*Setophaga petechia*
	Reptiles	
R1	California glossy snake	*Arizona elegans occidentalis*
R2	coast horned lizard	*Phrynosoma blainvillii*
R3	coast patch-nosed snake	*Salvadora hexalepis virgultea*
R4	coastal whiptail	*Aspidoscelis tigris stejnegeri*
R5	orange-throated whiptail	*Aspidoscelis hyperythra*
R6	red-diamond rattlesnake	*Crotalus ruber*
R7	San Bernardino ringneck snake	*Diadophis punctatus modestus*
R8	San Diego banded gecko	*Coleonyx variegatus abbotti*
R9	Southern California legless lizard	*Anniella stebbinsi*
R10	western pond turtle	*Emys marmorata*
	Amphibians	
A1	western spadefoot	*Spea hammondii*

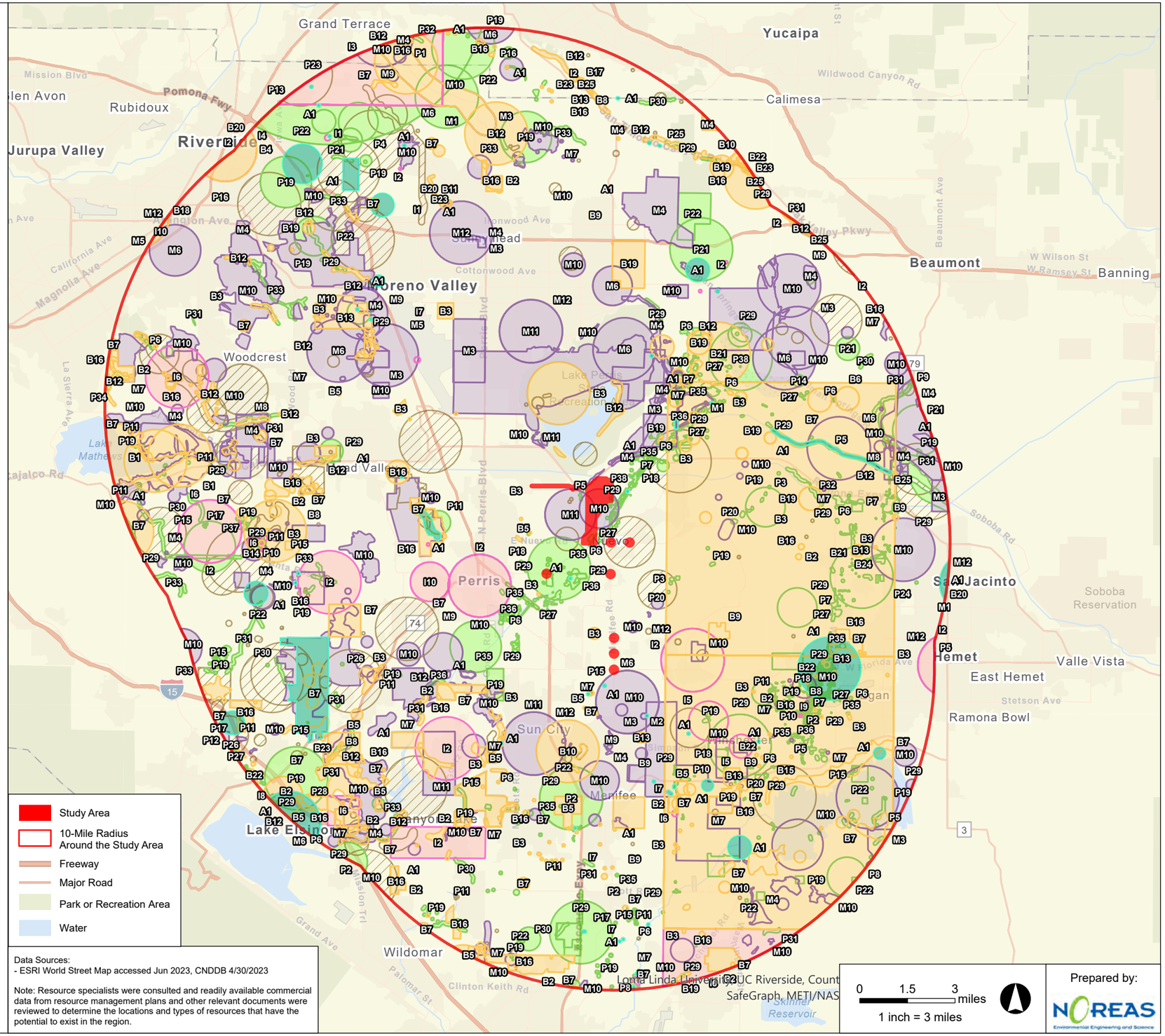
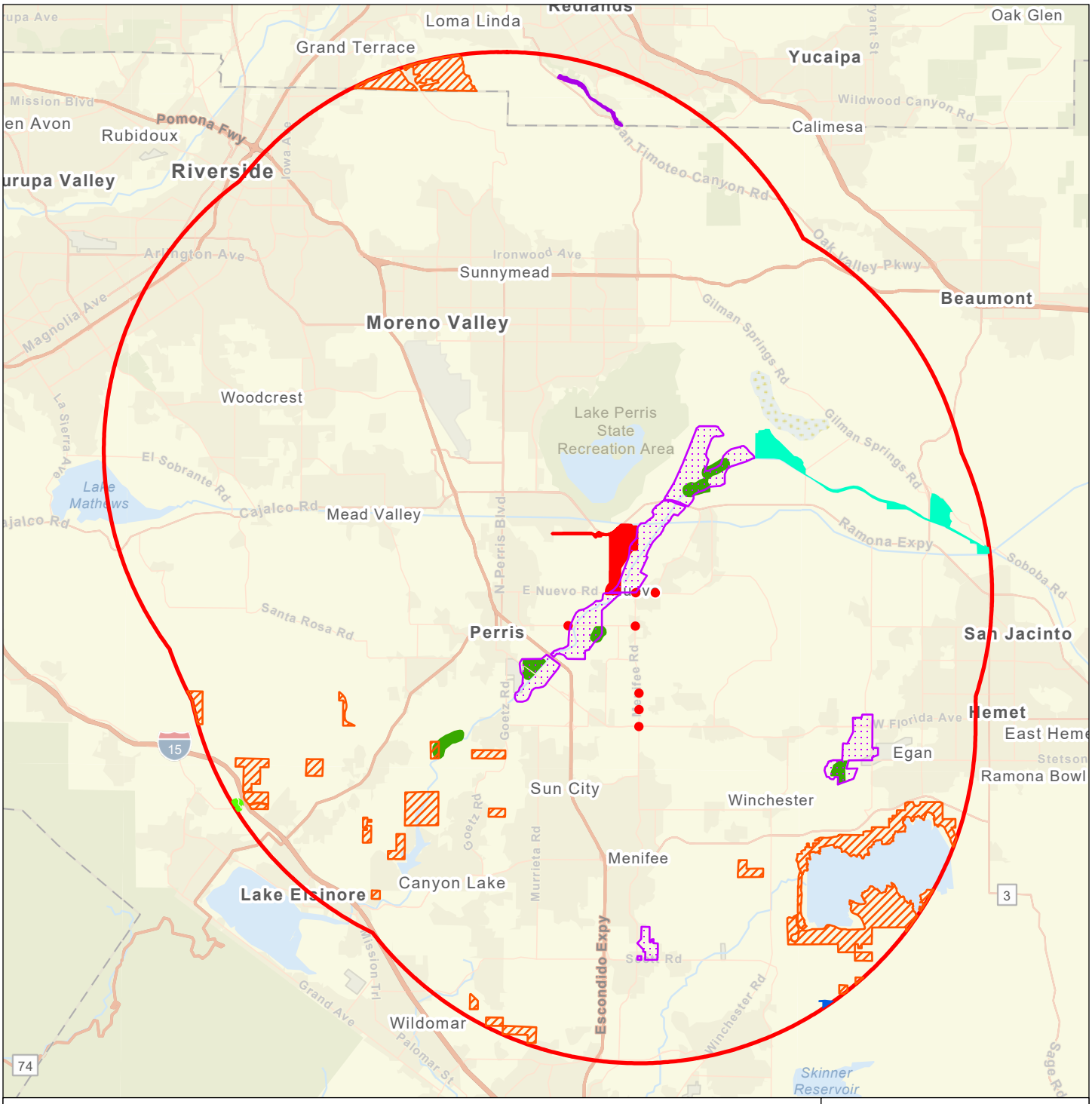


Figure 9. Literature Review

Figure 10 Critical Habitat



Study Area

10-Mile Radius Around the Study Area

Freeway

Major Road

Park or Recreation Area

Water

Critical Habitat

- Coastal California gnatcatcher (*Catostomus santaanae*)
- Quino checkerspot butterfly (*Euphydryas editha quino (=E. e. wrighti)*)
- San Bernardino Merriam's kangaroo rat (*Dipodomys merriami parvus*)
- San Diego ambrosia (*Ambrosia pumila*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Spreading navarretia (*Navarretia fossalis*)
- Thread-leaved brodiaea (*Brodiaea filifolia*)

0 2 4 Miles

1 inch = 4 miles

Data Sources:
- ESRI World Street Map accessed Jun 2023
- US Fish and Wildlife Service Critical Habitat data date: Jan 2023

Map Prepared: 6-27-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 10. Critical Habitat

Figure 11 National Wetland Inventory

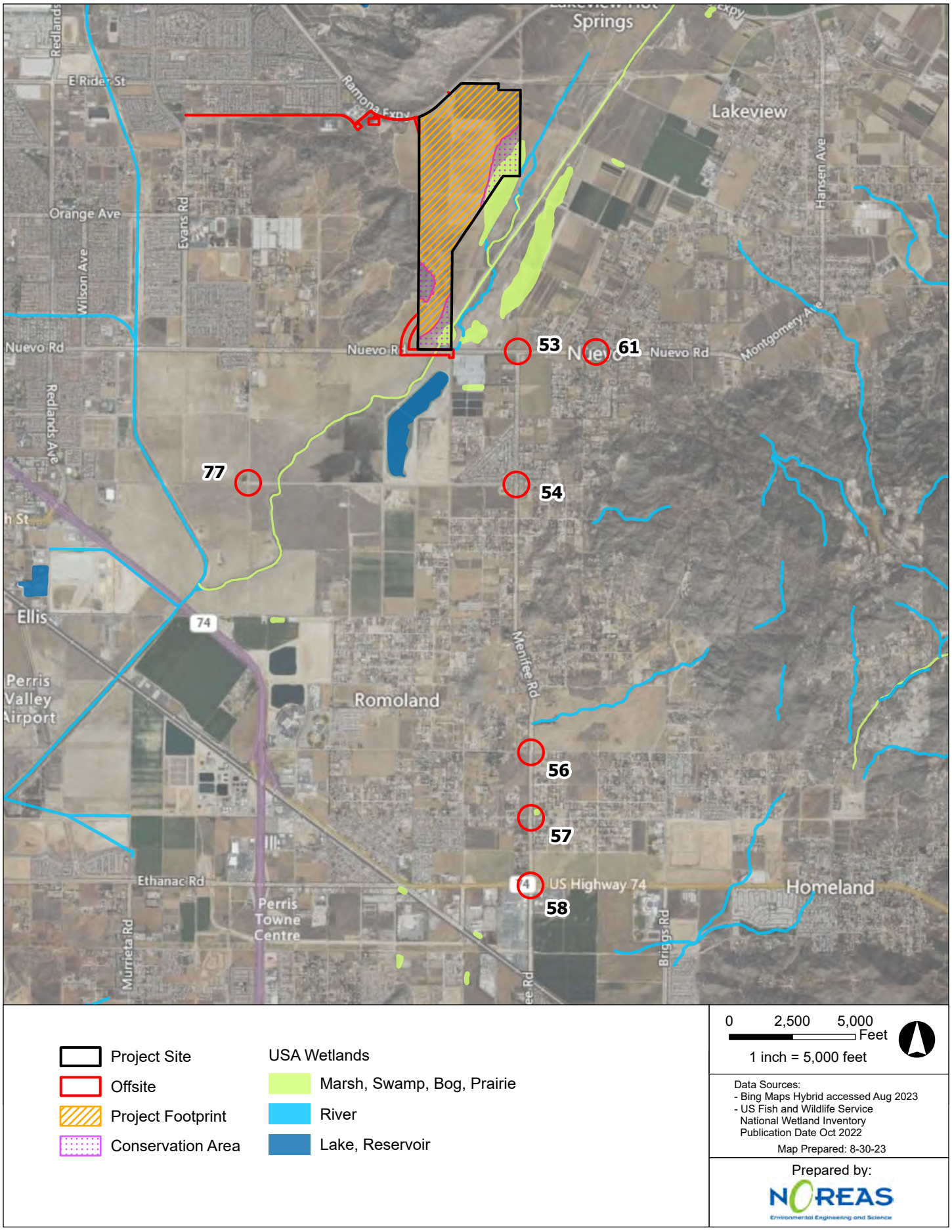


Figure 11. National Wetland Inventory

Appendix B Copy of the HANS Determination and JPR Findings

EPD

COUNTY OF RIVERSIDE
TRANSPORTATION AND LAND MANAGEMENT AGENCY
Environmental Programs Department

Carolyn Syms Luna
Director

September 18, 2006

Fiesta Development, Inc.
470 East Harrison Street
Corona, CA. 92879
Attention: Debi Myers

Dear Ms. Myers:

Re: JPR 06-08-18-01 Determination Letter – Partial Conservation
HANS No. 269
Case No. TR32372, PM31446
Assessor's Parcel Numbers: 307070003 through 005, 307080005, 307080006, 307080008, 307090001, 307090004, 307090005, 307100003, 307100004, 307100005, 307110003, 307110007, 307110008, 307220001, 307230018 and 307230021

This letter is to inform you that the HANS determination for the subject property was forwarded to the Regional Conservation Authority (RCA) for Joint Project Review (JPR) pursuant to Section 6.6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). As stated on the attached "RCA JPR Review", the RCA has concurred with the County that partial conservation is described for this property (exhibit attached).

You may proceed with the planning process for the remainder of the property. Please note that this determination does not preclude compliance with any conditions incorporated into your final project approval.

If you have questions concerning the attached comments, please contact the EPD at (951) 955-6892.

Sincerely,

ENVIRONMENTAL PROGRAMS DEPARTMENT

Ken Baez
Senior Planner

KGB

xc: Karin Watts-Bazan, Deputy County Counsel
Greg Neal, EPD
Monica Thill, EPD
Sarah Lozano, RCA
Adam Rush, Planning Department

RCA Joint Project Review (JPR)

JPR #: 06 08 18 01
Date: 9/15/06

Project Information

Permittee: **Riverside County**
Case Information: **HANS 269**
Site Acreage: **638 acres**
Portion of Site Proposed for MSHCP Conservation Area: **80 acres (between two areas of 55 and 25 acres)**

Criteria Consistency Review

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

Data:

Applicable Core/Linkage: Proposed Extension of Existing Core 4
Area Plan: Lakeview / Nuevo

APNs	Sub-Unit	Cell Groups	Cells
307070003 307070004 307070005 307080005 307080006 307080008 307090001 307090004 307090005 307100003 307100004 307100005 307110003 307110007 307110008 307220001 307230018 307230021	SU1 - San Jacinto River, Middle Reach	C, D E, F, & G	2442, 2547, 2651, 2761, 2762, & 2865

Comments:

a. Proposed Extension of Existing Core 4 is composed of the middle reach of the San Jacinto River and is contiguous with Core Area in Lake Perris Recreation Area. It provides Habitat for a number of Narrow Endemic Plant Species and movement for species connecting to Lake Perris and areas downstream of the San Jacinto River in Canyon Lake. Planning Species for which Habitat is provided within this proposed Extension of Existing Core include San Jacinto Valley crownscale, thread-leaved brodiaea, arroyo toad, and Los Angeles pocket mouse.

b. Conservation within Cell Group C will contribute to Proposed Extension of Existing Core 4. Conservation within this Cell Group will focus on assembly of a mosaic of habitat types, including grassland, playas/vernal pool and water habitat, and agricultural land associated with the San Jacinto River. Areas conserved within this Cell Group will be connected to water habitat and agricultural land proposed for conservation in Cell Group B to the south and southwest and to playas/vernal pool habitat and agricultural land proposed for conservation in Cell 2867 to the west and in Cell Group D to the north. Conservation within this Cell Group will range from 55%-65% of the Cell Group focusing in the western portion of the Cell Group.

c. Conservation within Cell Group D will contribute to Proposed Extension of Existing Core 4. Conservation within this Cell Group will focus on assembly of playas/vernal pool, riparian scrub, woodland and forest habitat, and agricultural land adjacent to the San Jacinto River. Areas conserved within this Cell Group will be connected to playas/vernal pool habitat and agricultural land proposed for conservation in Cell Group C to the south, to playas/vernal pool habitat proposed for conservation in Cell Group E to the north, and to playas/vernal pool, riparian scrub, woodland and forest habitat, and agricultural land proposed for conservation in Cell 2760 to the east. Conservation within this Cell Group will range from 50%-60% of the Cell Group focusing in the eastern portion of the Cell Group.

d. Conservation within Cell Group E will contribute to assembly of Proposed Extension of Existing Core 4. Conservation within this Cell Group will focus on playas/vernal pool habitat and agricultural land adjacent to the San Jacinto River. Areas conserved within this Cell Group will be connected to playas/vernal pool habitat and agricultural land proposed for conservation in Cell Group D to the southwest, in Cell Group F to the north, and in Cell 2760 to the south. Conservation within this Cell Group will range from 70%-80% of the Cell Group focusing in the western portion of the Cell Group.

e. Conservation within Cell Group F will contribute to assembly of Proposed Extension of Existing Core 4. Conservation within this Cell Group will focus on playas/vernal pool habitat and agricultural land adjacent to the San Jacinto River. Areas conserved within this Cell Group will be connected to playas/vernal pool habitat and agricultural land proposed for conservation in Cell Group E to the south and in Cell Group G to the north and to agricultural land proposed for conservation in Cell 2549 to the east. Conservation within this Cell Group will range from 60%-70% of the Cell Group focusing in the eastern portion of the Cell Group.

f. Conservation within Cell Group G will contribute to assembly of Proposed Extension of Existing Core 4. Conservation within this Cell Group will focus on playas/vernal pool habitat adjacent to the San Jacinto River. Areas conserved within this Cell Group will be connected to playas/vernal pool habitat proposed for conservation in Cell Groups F to the south, I to the north, and H to the east. Conservation within this Cell Group will range from 50%-60% of the Cell Group focusing in the eastern portion of the Cell Group.

g. The applicant is proposing to develop the site with a mixed-use residential and commercial master planned development. The Applicant is proposing to contribute over 79 acres of riparian and vernal pool habitat along the San Jacinto River for conservation under the MSHCP. The configuration and size of the proposed conservation area is consistent with the Reserve Assembly objectives for this area,

as it contributes appropriately located and configured habitat areas to the Proposed Extension of Existing Core 4. Therefore, it is not anticipated that implementation of the project with the proposed dedication would conflict with Reserve Assembly in this area.

Other Plan Requirements

Data:

Section 6.1.2 – Riparian/Riverine/Vernal Pool Mapping Provided:

Yes. Information was provided.

Section 6.1.3 – Narrow Endemic Plant Species Surveys Provided:

Yes. The project site is located within Narrow Endemic Plant Species Survey Area 3.

Section 6.3.2 – Additional Species Surveys Provided:

Yes. The project site is located within Criteria Area species survey area 3, as well as the burrowing owl and Los Angeles pocket mouse survey areas.

Section 6.1.4 – Guidelines Pertaining to Urban/Wildland Interface:

Yes. Project design features are included in the application materials.

Comments:

a. The southeastern corner of the project site includes a portion of the San Jacinto River. Additionally, vernal pool habitat exists in two places on the property along the San Jacinto River: one in the southeastern corner of the property and one in the southeastern corner of the northeastern half of the property. These areas will not be impacted by development, as they are proposed for inclusion in the MSHCP conservation area. There are no other riparian/riverine areas, vernal pools, or fairy shrimp habitat on the property. The remaining areas of the property consist of roads, agricultural fields, riversidean sage scrub, and non-native grassland (C.J. Fotheringham and Shay E. Lawrey reports, July 2006, and email September 1, 2006). The project demonstrates compliance with Section 6.1.2 of the MSHCP.

b. The project site is located within Narrow Endemic Plant Species Survey Area 3, which includes Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis. Focused surveys were conducted in March, April, May, and June 2006, for these plants. Spreading navarretia was found to be on the site within the vernal pool habitat that is proposed

for conservation. None of the other Narrow Endemic Plant Species Survey Area 3 plants were found on the site. The project demonstrates compliance with Section 6.1.3 of the MSHCP.

c. The project site is located within the burrowing owl and Los Angeles pocket mouse survey areas, as well as Criteria Area Species Survey Area 3, which includes San Jacinto Valley crownscale, Parish's brittlescale, Davidson's saltscale, thread-leaved brodiaea, smooth tarplant, round-leaved filaree, Coulter's goldfields, little mousetail, and mud nama. Focused surveys were conducted in March, April, May, and June 2006, for the Criteria Area plants. Three of these plants were found on the site within the vernal pool or alkali playa habitat: Davidson's saltscale, smooth tarplant, and Coulter's goldfields. The plants are within the area proposed for conservation and would not be impacted by the proposed development. The other Criteria Area plants were not found on the site. Burrowing owl surveys were conducted on the site on April 2, 3, 4, 8, 15, and 21, 2006, and revealed no "burrowing owls, sign of burrowing owls, or burrows of appropriate size" on the site (Tom Dodson and Associates report, July 2006). Small mammal trapping surveys were conducted between April 1 and 10, 2006, on the site and revealed three Los Angeles pocket mice found on the westerly parcels 307070004 and 005; however, these parcels are not included in the Los Angeles pocket mouse survey area. No Los Angeles pocket mice were found on the site within the Los Angeles pocket mouse survey area (as shown on Figure 9 of the Tom Dodson and Associates report, July 2006). The project demonstrates compliance with Section 6.3.2 of the MSHCP.

d. To preserve the integrity of area dedicated as MSHCP Conservation Areas, which is proposed to occur adjacent to development, 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 the MSHCP Conservation Area. The greatest risk is to riparian habitats north of the project site.

   ii. Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts, such as manure, which 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. In this instance, focused habitat occurs in close proximity to the west, south, and southeast; shielding should focus on these areas.

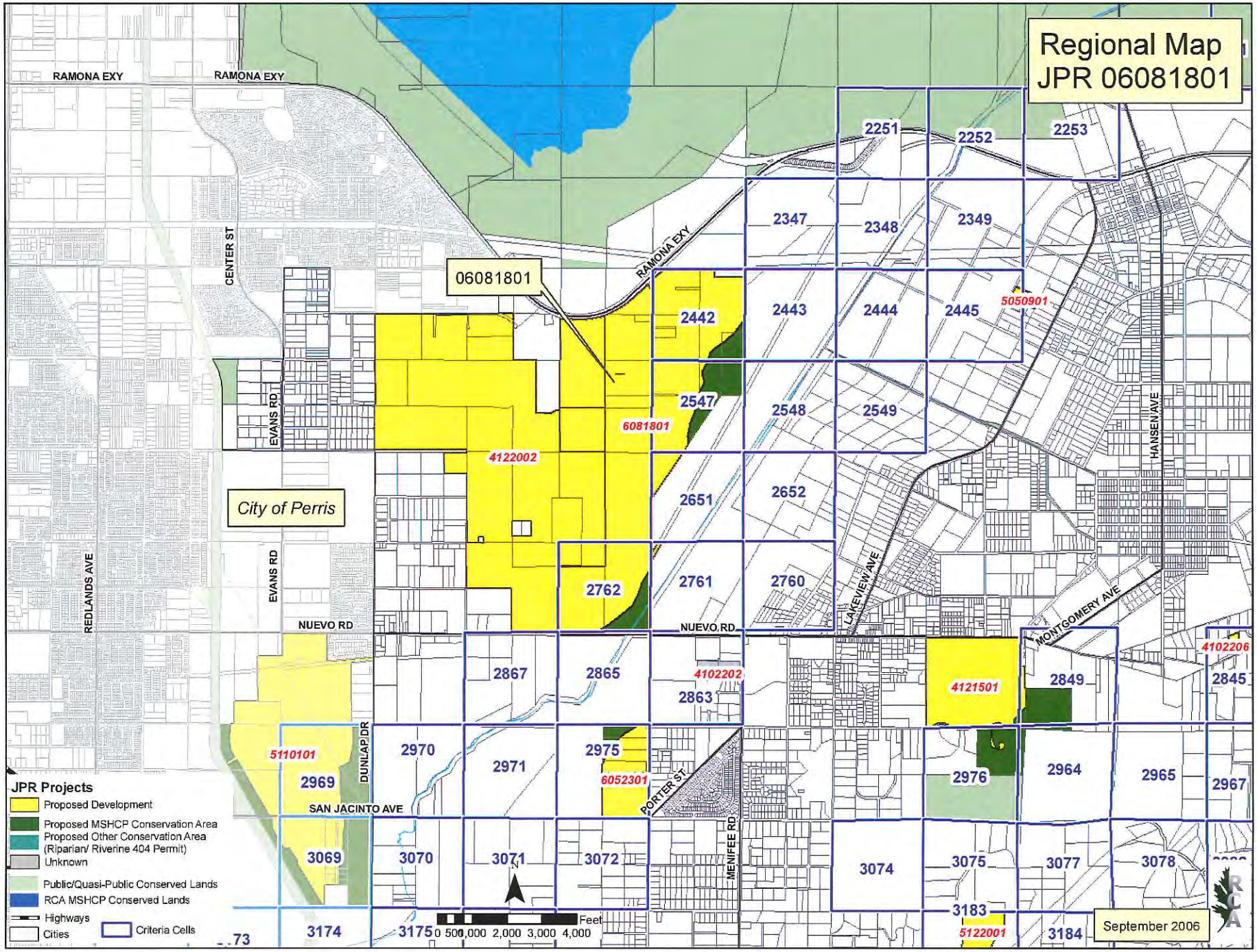
   iv. Proposed noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.

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 appropriate mechanisms.

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

EAL


Regional Map
JPR 06081801
RAMONA EXY
RAMONA EXY
CENTER ST
EVANS RD
EVANS RD
REDLANDS AVE
NUEVO RD
NUEVO RD
SAN JACINTO AVE
DUNLAP DR
RAMONA EXY
HANSEN AVE
LAKEVIEW AVE
MONTGOMERY AVE
PORTER ST
MENIFEE RD
06081801
City of Perris
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5122001
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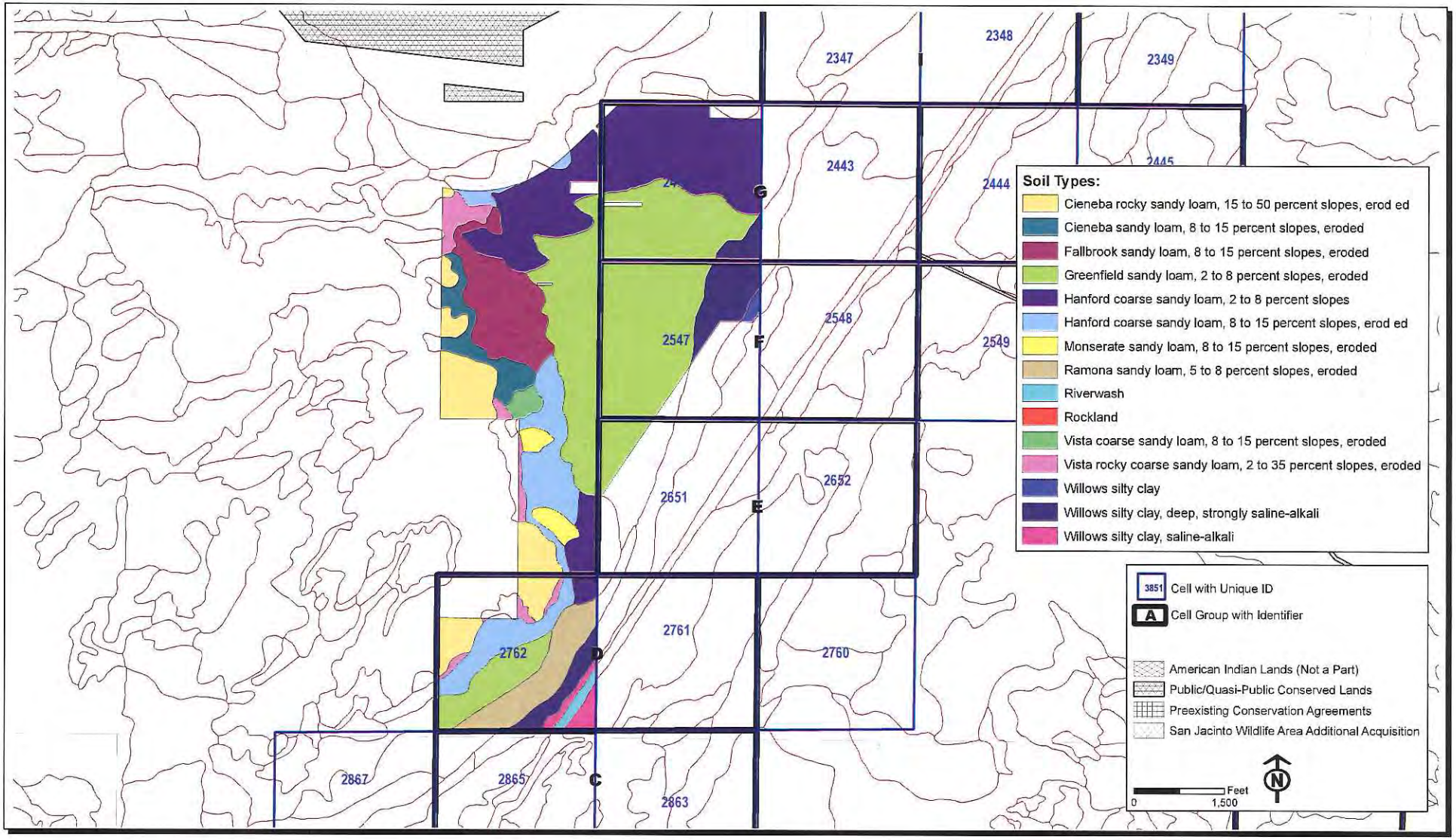
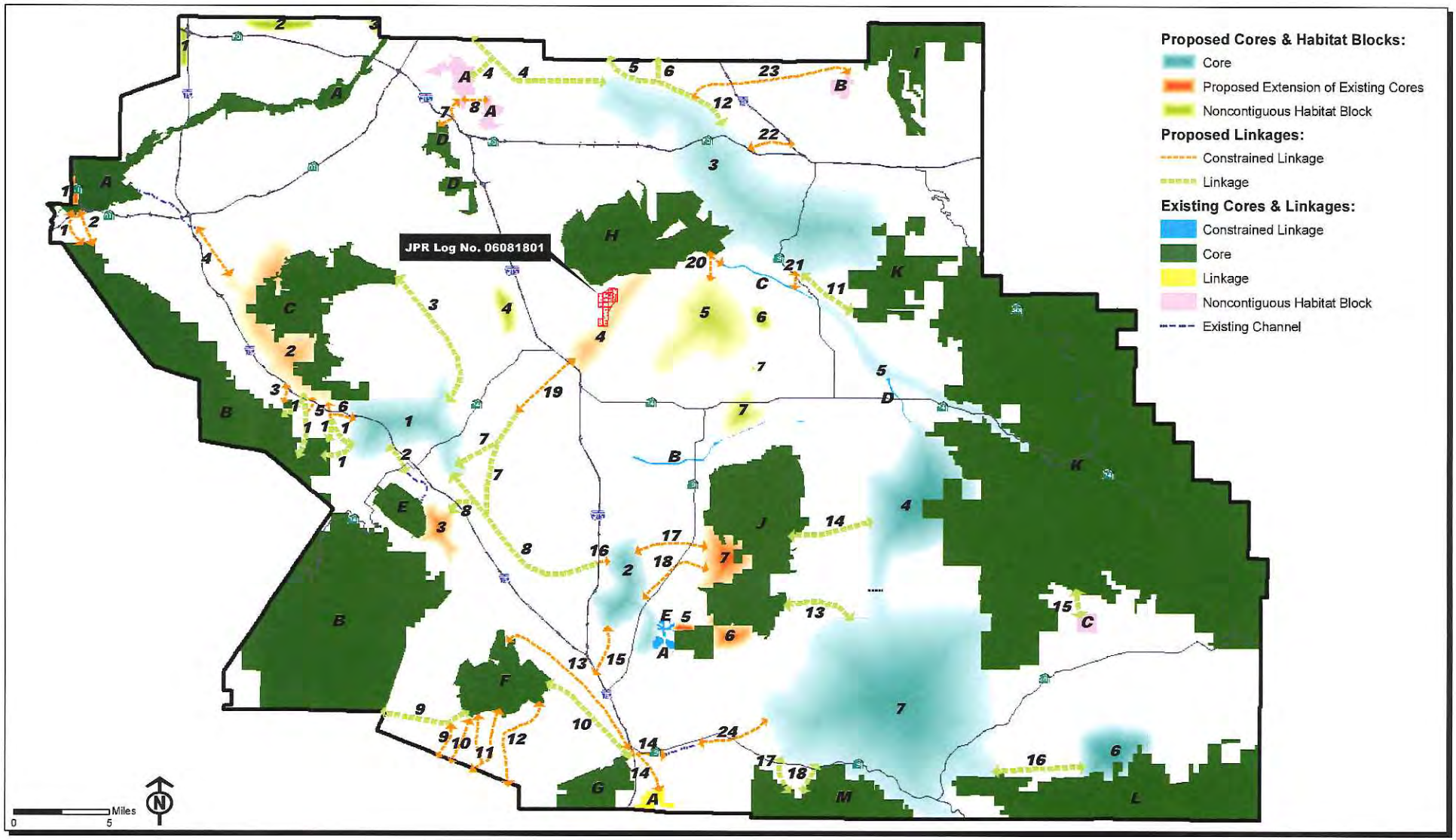
3175
JPR Projects
Proposed Development
Proposed MSHCP Conservation Area
Proposed Other Conservation Area (Riparian/ Riverine 404 Permit)
Unknown
Public/Quasi-Public Conserved Lands
RCA MSHCP Conserved Lands
Highways
Cities
Criteria Cells
0 500 1,000 2,000 3,000 4,000
Feet
September 2006



JPR Log No. 06081801

Criteria Area Cells with MSHCP Soils and Project Location

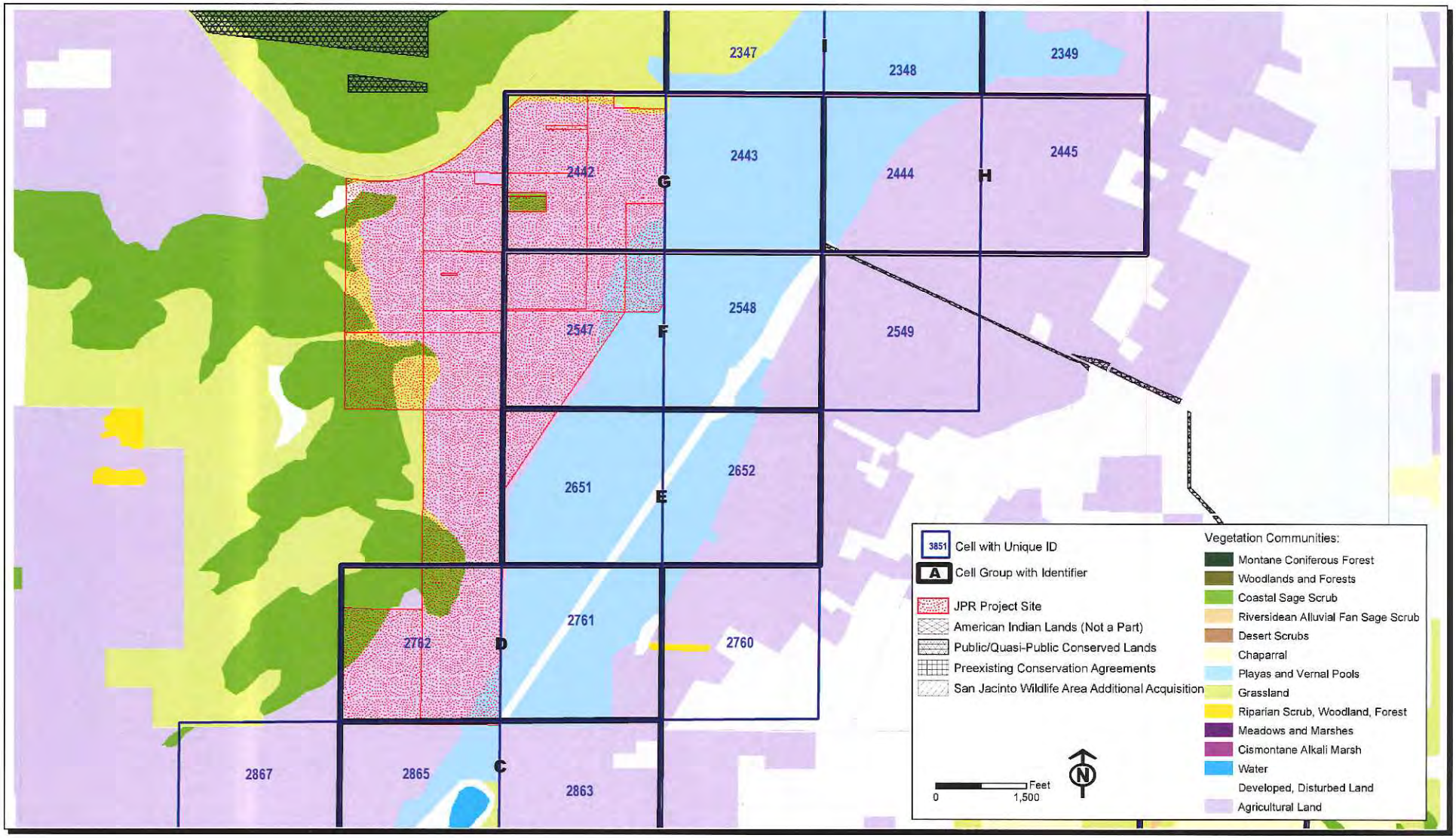
EXHIBIT C



JPR Log No. 06081801

Vicinity Map with MSHCP Schematic Cores and Linkages

EXHIBIT A



JPR Log No. 06081801

Criteria Area Cells with MSHCP Vegetation and Project Location

EXHIBIT B

Appendix C Special-Status Species Potential for Occurrence

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
Jaeger's milk-vetch *(Astragalus pachypus var. jaegeri)*	-	-	1B.1	Covered	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	A	A	HP
Plummer's mariposa-lily *(Calochortus plummerae)*	-	-	4.2	Covered	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	A	A	HP
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE	-	-	Covered	Patchy shrub or small tree landscapes with openings of several meters between large plants or a landscape of open swales alternating with dense patches of shrubs.	A	A	A
Los Angeles pocket mouse *(Perognathus longimembris brevinasus)*	-	SSC	-	Covered	Fine, sandy soils in coastal sage scrub and grasslands.	P	HP	P
Riverside fairy shrimp (Streptocephalus woottoni)	FE	-	-	Covered	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	A	A	A
Vernal Pool fairy shrimp	FT	-	-	Covered	Seasonal vernal pools	A	A	A
Northwestern San Diego pocket mouse *(Chaetodipus fallax)*	-	SSC	-	Covered	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	P	HP	P
Payson's jewelflower *(Caulanthus simulans)*	-	-	4.2	Covered	Sandy or granitic soils in chaparral and coastal scrub.	A	A	HP
Southern California legless lizard *(Anniella stebbinsi)*	-	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.	A	A	A
Stephens' kangaroo rat *(Dipodomys stephensi)*	FT	ST	-	Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	P	HP	P
Dulzura pocket mouse *(Chaetodipus californicus femoralis)*	-	SSC	-	-	Coastal scrub, grassland, and chaparral, especially at grass- chaparral edges	A	A	A
Southern California rufous-crowned sparrow *(Aimophila ruficeps canescens)*	-	SSC	-	Covered	The species breeds in young coniferous forests with high canopy associations. For nesting they occur in dense tree stands which are cool, moist, well shaded, and usually near water. For hunting Habitat, they often use openings at the edges of woodlands and brushy pastures.	A	A	A
Coastal whiptail *(Aspidoscelis tigris stejnegeri)*	-	SSC	-	Covered	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	HP	HP	HP
Parry's spineflower *(Chorizanthe parryi var. parryi)*	-	-	1B.1	Covered	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	A	A	HP

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
San Diego desert woodrat *(Neotoma lepida intermedia)*	-	SSC	-	Covered	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	P	HP	P
Yellow warbler *(Setophaga petechia)*	-	SSC	-	Covered	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.	A	A	HP
Coastal California gnatcatcher *(Polioptila californica californica)*	FT	SSC	-	Covered	Low elevation coastal sage scrub and coastal bluff scrub.	A	A	HP
Red-diamond rattlesnake *(Crotalus ruber)*	-	SSC	-	Covered	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	A	A	HP
Ferruginous hawk *(Buteo regalis)*	-	SSC	-	Covered	Wintering habitat consists of open terrain and grasslands of plains and foothills.	P	HP	P
Smooth tarplant *(Centromadia pungens ssp. laevis)*	-	-	1B.1	Covered	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	A	A	P
Least Bell's vireo *(Vireo bellii pusillus)*	FE	SE	-	Covered	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	A	A	A
Loggerhead shrike *(Lanius ludovicianus)*	-	SSC	-	Covered	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.	P	HP	P
Western yellow bat *(Lasiurus xanthinus)*	-	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	A	A	A
Coast horned lizard *(Phrynosoma blainvillii)*	-	SSC	-	Covered	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	HP	HP	HP
Spiny-hair blazing star *(Mentzelia tricuspis)*	-	-	2B.1	-	Found in deserts, such as the Sonoran Desert, and adjacent mountains in scrub and woodland habitats.	A	A	A
Orange-throated whiptail *(Aspidoscelis hyperythra)*	-	SSC	-	-	Occurs in a wide variety of habitats but is more closely tied to coastal sage scrub and chaparral habitats with less than 90 percent vegetative cover.	HP	HP	HP

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
Burrowing owl *(Athene cunicularia)*	-	SSC	-	Covered	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.	HP	HP	HP
San Bernardino aster *(Symphyotrichum defoliatum)*	-	-	1B.2	-	Cismontane woodland, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	A	A	A
California black rail (*Laterallus jamaicensis coturniculus*)	-	ST	-	-	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded meter-high or taller grassy vegetation.	A	A	A
Tricolored blackbird *(Agelaius tricolor)*	-	ST	-	Covered	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	A	A	A
Golden eagle *(Aquila chrysaetos)*	-	CFP	-	Covered	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	A	A	A
Palmer's mariposa-lily *(Calochortus palmeri var. palmeri)*	-	-	1B.2	-	Found in meadows and vernally moist places, at elevations from 3900-7200 feet.	A	A	A
California glossy snake *(Arizona elegans occidentalis)*	-	SSC	-	-	Inhabits arid scrub, rocky washes, grasslands, chaparral.	A	A	HP
Cooper's hawk *(Accipiter cooperii)*	-	SSC	-	Covered	Cooper's hawk breeds in deciduous, mixed, and evergreen forests and deciduous stands of riparian habitat (Rosenfield and Bielefeldt 1993). The Cooper's hawk tends to nest in stands with lower densities of taller and larger trees and a greater proportion of hardwood cover than conifer species when compared to other accipiters (Trexel, et al. 1999)	HP	HP	P
California horned lark *(Eremophila alpestris actia)*	-	SSC	-	Covered	It is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. It is found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above tree line.	HP	HP	P
San Diego black-tailed jackrabbit *(Lepus californicus bennettii)*	-	SSC	-	Covered	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	P	HP	P
Southwestern willow flycatcher *(Empidonax traillii extimus)*	FE	SE	-	Covered	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	A	A	A

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
Coastal cactus wren *(Campylorhynchus brunneicapillus sandiegensis)*	-	SSC	-	Covered	The cactus wren is an obligate, nonmigratory resident of the coastal sage scrub plant community (as defined by Westman 1983 and O'Leary 1990). It frequents deserts and other arid terrain with thickets, patches, or tracts of larger, branching cacti, stiff-twigged, thorny shrubs, and small trees (Grinnell and Miller 1944).	A	A	A
San Bernardino kangaroo rat *(Dipodomys merriami parvus)*	FE	SSC	-	Covered	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	A	A	A
Long-eared owl (*Asio otus)*	-	SSC	-	-	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	A	A	A
Southern grasshopper mouse *(Onychomys torridus ramona)*	-	SSC	-	-	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	A	A	A
Salt spring checkerbloom *(Sidalcea neomexicana)*	-	-	2B.2	-	Mesic, alkaline soils in chaparral, lower montane coniferous forest, Mojavean desert scrub, and playas.	A	A	A
Coulter's goldfields *(Lasthenia glabrata ssp. coulteri)*	-	-	1B.1	Covered	Playas, vernal pools, marshes and swamps (coastal salt).	A	A	P
Western yellow-billed cuckoo *(Coccyzus americanus occidentalis)*	FT	SE	-	Covered	Dense, wide riparian woodlands with well-developed understories.	A	A	A
White-tailed kite *(Elanus leucurus)*	-	SSC	-	Covered	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	P	HP	P
Mud nama *(Nama stenocarpa)*	-	-	2B.2	Covered	Marshes and swamps	A	A	A
San Jacinto Valley crownscale *(Atriplex coronata var. notatior)*	FE	-	1B.1	Covered	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	A	A	P
Northern harrier *(Circus cyaneus*)	-	SSC	-	Covered	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	P	HP	P
Western snowy plover *(Charadrius alexandrinus nivosus)*	FT	SSC	-	-	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	A	A	A
Yellow-breasted chat *Icteria virens)*	-	SSC	-	Covered	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well- developed understories.	A	A	A

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
Yellow-headed blackbird *(Xanthocephalus xanthocephalus))*	-	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.	A	A	A
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	-	SSC	-	-	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	A	A	A
Western mastiff bat (Eumops perotis californicus)	-	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.	A	A	A
Munz's onion (*Allium munzii)*	FE	ST	1B.1	Covered	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands	A	A	HP
Chaparral sand-verbena (*Abronia villosa var. aurita)*	-	-	1B.1	-	Sandy soils in chaparral, coastal sage scrub.	A	A	HP
Parish's brittlescale (*Atriplex parishii*)	-	-	1B.1	Covered	Chenopod scrub, playas, vernal pools.	A	A	A
Spreading Navarretia (*Navarretia fossalis)*	FE	-	1B.1	Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	A	CH	CH
Wright's trichocoronis (*Trichocoronis wrightii var. wrightii)*	-	-	2B.1	Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	A	A	HP
Davidson's saltscale (Atriplex serenana var. davidsonii)	-	-	1B.2	Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub.	A	A	A
Thread-leaved brodiaea *(Brodiaea filifolia*)	FT	SE	1B.1	Covered	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	A	A	HP
Long-spined spineflower (*Chorizanthe polygonoides var. longispina)*	-	-	1B.2	Covered	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands.	A	A	A
California screw moss (*Tortula californica)*	-	-	1B.2	-	Sandy soil in chenopod scrub, and valley and foothill grassland.	A	A	A
Robinson's pepper-grass (*Lepidium virginicum var. robinsonii)*	-	-	4.3	-	Sandy soil in chenopod scrub, and valley and foothill grassland	A	A	A
California Orcutt grass (*Orcuttia californica)*	FE	SE	1B.1	Covered	Vernal pools	A	A	HP
Little mousetail (*Myosurus minimus ssp. Apus*)	-	-	3.1	Covered	Valley and foothill grassland, vernal pools (alkaline soils).	A	A	A
San Diego Ambrosia *(Ambrosia pumila*)	FE	-	1B.1	Covered	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	A	A	HP
Palmer's grapplinghook (*Harpagonella palmeri)*	-	-	4.2	Covered	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	A	A	HP

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
Marsh sandwort (*Arenaria paludicola)*	FE	SE	1B.1	-	Bogs and fens, freshwater marshes and swamps.	A	A	A
Salt marsh bird's-beak *(Chloropyron maritimum ssp. Maritimum)*	FE	SE	1B.2	-	Found in coastal salt marshes	A	A	A
Chapparal ragwort (*Senecio aphanactis)*	-	-	2B.2	-	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	A	A	HP
Nevin's barberry (*Berberis nevinii)*	-	-	1B.1	Covered	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	A	A	A
San Bernardino aster (*Symphyotrichum defoliatum)*	-	-	1B.2	-	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley, and foothill grassland (vernally mesic).	A	A	A
Intermediate mariposa-lily (*Calochortus weedii var. intermedius)*	-	-	1B.2	Covered	Rocky soils in chaparral, coastal sage scrub, valley, and foothill grassland.	A	A	HP
Slender-horned spineflower (*Dodecahema leptoceras)*	FE	FE	1B.1	Covered	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	A	A	A
Alvin Meadow bedstaw *(Galium californicum ssp. primum)*	-	-	1B.2	-	Found mainly in moist, shady habitats in hills and mountainous areas, often within the California chaparral and woodlands ecoregion	A	A	A
Many-stemmed dudleya (*Dudleya multicaulis)*	-	-	1B.2	Covered	Chaparral, coastal sage scrub, valley, and foothill grassland. Often occurring in clay soils.	A	A	HP
Delhi Sands flower-loving fly (*Rhapiomida terminates abdominalis)*	FE	SSC	-	Covered	Found in fine, sandy soils, often with wholly or partly consolidated dunes referred to as the "Delhi" series.	A	A	A
Western pond turtle (*Emys marmorata)*	-	SSC	-	Covered	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons.	A	A	A
San Bernardino ringneck snake (*Diadophis punctatus modestus)*	-	SSC	-	-	Prefers moist habitats, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, woodlands.	A	A	A
San Diego banded gecko *(Coleonyx variegatus abbotti)*	-	SSC	-	Covered	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	A	A	A
Coast patch-nosed snake (*Salvadora hexalepis virgultea)*	-	SSC	-	-	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas. This shy species avoids areas subject to high levels of human disturbance.	A	A	A
Bell's sparrow (*Artemisiospiza belli belli)*	-	SSC	-	Covered	The sage sparrow prefers semi-open habitats with evenly spaced shrubs closely associated with sagebrush throughout most of its range.	A	A	HP

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
White faced ibis (*Plegadis chihi)*	-	SSC	-	Covered	Found in mainly shallow marshes with islands of emergent vegetation.	A	A	A
Lawrence's goldfinch (*Spinus lawrencei)*	-	SSC	-	-	Found in dry and open woods that are near both brushy areas and fields of tall annual weeds, usually within 0.5 mi (0.80 km) of a small body of water	A	A	A
Bald eagle (*Haliaeetus leucocephalus)*	-	SE	-	Covered	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	A	A	A
Swainson's hawk (*Buteo swainsoni)*	-	ST	-	Covered	Found in open desert, sparse shrub lands, grassland, or cropland containing scattered, large trees or small groves.	A	A	A
Western spadefoot *(Spea hammondi)*	-	SSC	-	Covered	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	A	A	A
Buxbaum's sedge (*Carex buxbaumi)*	-	-	4.2	-	Bogs and fens, Meadows and seeps (mesic) and marshes and swamps.	A	A	A
Coulter's matilija poppy (*Romneya coulteri)*	-	-	4.2	Covered	Often in burns in chaparral and coastal scrub.	A	A	HP
Hammit's clay-cress (*Sibaropsis hammittii)*	-	-	1B.2	Covered	Chaparral, Valley and foothill grassland	A	A	A
Heart-leaved pitcher sage (*Lepechina cardiophylla)*	-	-	1B.2	Covered	Closed-cone coniferous forest, chaparral, and cismontane woodland.	A	A	A
Paniculate tarplant (*Deinandra paniculate)*	-	-	4.2	-	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	A	A	A
Peninsular spineflower (*Chorizanthe leptotheca)*	-	-	4.2	Covered	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	A	A	A
Round-leaved filaree (*California macrophylla)*	-	-	1B.1	Covered	Clay soils in cismontane woodland, valley and foothill grassland	A	A	A
San Diego sagewort (*Artemisia palmeri)*	-	-	4.2	-	Sandy and mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland.	A	A	A
San Miguel savory (*Clinopodium chandlen)*	-	-	1B.2	Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Ultramafic, Valley & foothill grassland.	A	A	HP
Small-flowered microseris (*Microseris douglasii ssp. Platycarpha)*	-	-	4.2	Covered	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools. Occurring on clay soils.	A	A	HP
Small-flowered morning-glory (*Convolvulus simulans)*	-	-	4.2	Covered	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	A	A	HP
Snake cholla (*Cylindropuntia californica var. californica)*	-	-	1B.1	-	Chaparral, coastal sage scrub	A	A	HP

Common Name (Scientific Name)	Federal Listing Status	State Listing Status	CNPS List	MSHCP Status	Habitat Requirements	Potential For Occurrence Project Footprint	Potential For Occurrence Offsite Areas	Potential For Occurrence Conservations Areas
South coast saltscale (*Atriplex pacifica)*	-	-	1B.2	-	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	A	A	HP
Southern California black walnut (*Juglans californica)*	-	-	4.2	Covered	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	A	A	A
Vernal barley (*Hordeum intercedens)*	-	-	3.2	Covered	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	A	A	HP
Yucaipa onion (*Allium marvinii)*	-	-	1B.2	Covered	Chaparral (clay, openings).	A	A	A

Status
Federal
FE – Federally Endangered
FT – Federally Threatened

State
SE – State Endangered
ST – State Threatened
SSC – Species of Special Concern
CFP – California Fully-Protected Species

CNPS List Definitions
List 1A: Plants presumed extinct in California
List 1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
List 1B.2: Plants rare, threatened, or endangered in California and elsewhere, fairly threatened in California
List 1B.3: Plants rare, threatened, or endangered in California and elsewhere, not very threatened in California
List 2.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
List 2.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)
Covered - A "covered species" in the context of the MSHCP refers to a species that is included in the plan. This means that the plan lays out specific steps to protect and recover the species and its habitat.

Absent [A] – Species distribution is restricted by substantive habitat requirements which do not occur – or are negligible within the Project Footprint, Offsite or Conservation areas, and no further survey or study is necessary to determine likely presence or absence of this species.
Habitat Present [HP] – Species distribution is restricted by substantive habitat requirements which occur within the Project Footprint, Offsite or Conservation areas and further study may be necessary to determine likely presence or absence of species.
Present [P] – Species or species sign were observed within the Project Footprint, Offsite or Conservation areas, or historically has been documented within Project limits.
Critical Habitat [CH] – The Project Footprint, Offsite or Conservation areas is located within a USFWS-designated critical habitat unit.

Appendix D Los Angeles Pocket Mouse Trapping Report, Los Angeles Pocket Mouse and Stephens Kangaroo Rat Habitat Assessment, etc.

Presence/Absence Trapping Studies

For the Los Angeles Pocket Mouse

Stone Ridge Project

Riverside County, California

Prepared by:

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Trapping Surveys Conducted
June 27 to July 5, 2020

Final Report Date:
November 14, 2020

Prepared For :
Glenn Lukos Associates, Inc.
1940 E. Deere Ave., Suite 250 Santa Ana, California 92705

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.

This report was prepared in accordance with professional requirements and recommended protocols for small mammal trapping studies.

Philippe Vergne *Philippe Jean Vergne* November 14, 2020

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Executive Summary

Philippe Vergne of ENVIRA was contracted by Glenn Lukos and Associates to conduct a protocol trapping survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)-(LAPM) on an estimated 582.9±-acre (65 acres of potential LAPM within survey area) property located in the Nuevo area of Riverside County, California (Exhibit 1). The assessment was required to confirm the presence of LAPM, and other potential sensitive small mammal species in drainages and upland habitat located on the property.

For decades, substantial portions of the project site have been subject to agricultural use resulting in intensive ground/soil disturbance. Representative activities include irrigated alfalfa farming, barley and oat dry-land farming, nurseries, potato farming, disking for weed abatement and fire suppression, and sheep grazing. The site is mostly flat with elevations ranging from 1,400 to 1,600 feet above mean sea level (amsl), with a majority of the site at 1,450 feet amsl or lower. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

Fourteen (14) individuals of the LAPM were captured during the current surveys. The LAPM were distributed on the North and Eastern portion of the property not currently under agriculture, and along dirt roads and power easements. The LAPM does not currently occur within the highly impacted agricultural fields on site. It should be noted that since per permit traps were pulled on the lines with LAPM and SKR capture after the first night of capture that the number of animals present is probably higher than that tallied.

Densities within the occupied habitat are consistent with documented densities for this species of less than 2 animals per hectare.

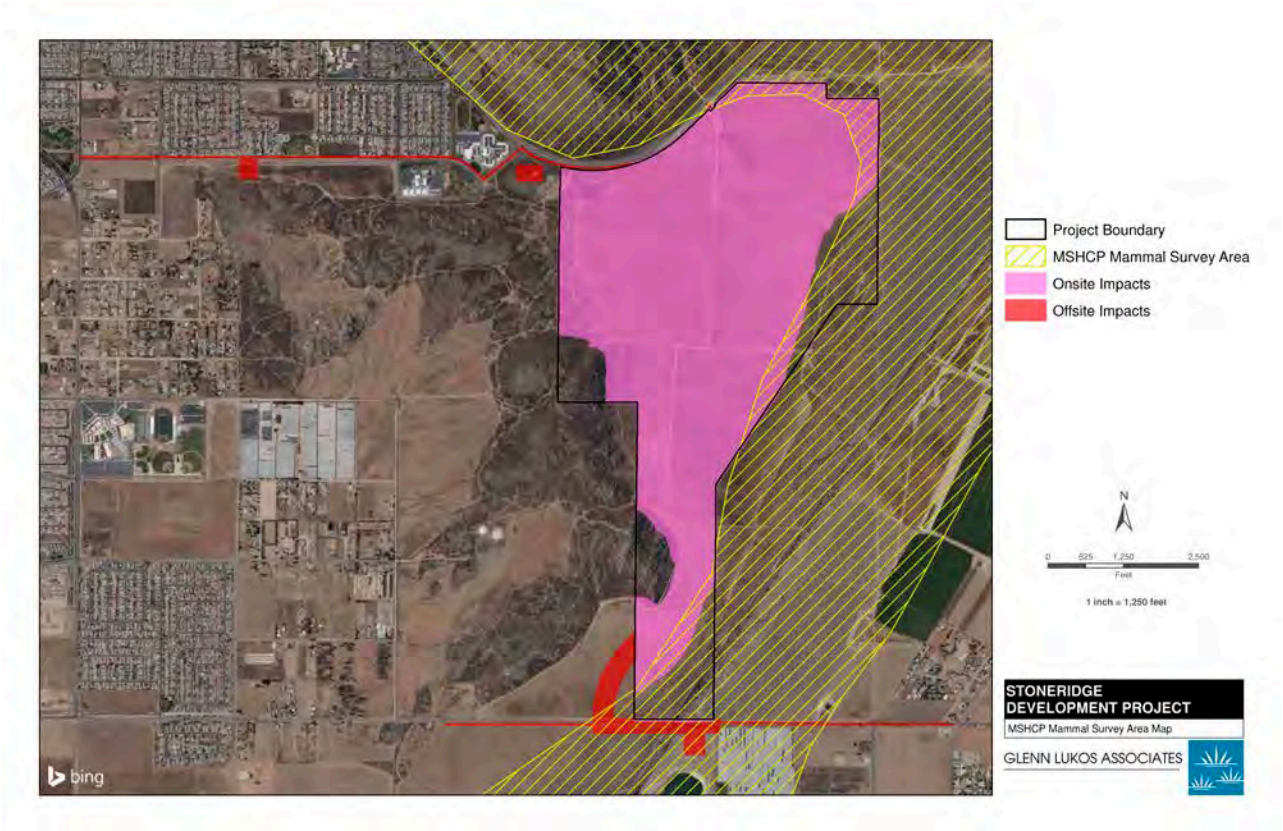
The MSHCP species account for LAPM depicts portions of the property as a potential core habitat area. Based on current and past surveys and data base records the LAPM on site occurs sporadically in the area in trace densities.

Introduction

Philippe Vergne of ENVIRA was contracted by Glenn Lukos and Associates to conduct a protocol trapping survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)-(LAPM) on an estimated 582.9±-acre (65 acres of potential LAPM habitat impacted within survey area) property located in the Nuevo area of Riverside County, California (Exhibit 1). The assessment was required to confirm the presence of LAPM, and other potential sensitive small mammal species in drainages and upland habitat located on the property.

For decades, substantial portions of the project site have been subject to agricultural use resulting in intensive ground/soil disturbance. Representative activities include barley and oat dry-land farming, potato farming, watermelon crops, disking for weed abatement and fire suppression, and sheep grazing. The site is mostly flat with elevations ranging from 1,400 to 1,600 feet above mean sea level (amsl), with a majority of the site at 1,450 feet amsl or lower. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

Exhibit 1. Project Boundary and LAPM Survey Areas



Methods

Research

ENVIRA reviewed available information on the known sensitive resources in the area. The literature review included a review of standard field guides and texts on sensitive and non-sensitive biological resources, as well as the following sources:

Western Riverside County MSHCP

Focused Surveys for the Los Angeles pocket Mouse in Area

We also reviewed other available technical information on the biological resources in proximity of the site and discussed recent findings with researchers in the field.

Nomenclature for this report, were appropriate, follows Baldwin *et al.* (2012) for plants and the MSHCP (Dudek 2003) for vegetation community classifications, with additional vegetation community information taken from Holland (1986). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, Center for North American Herpetology (Collins and Taggart 2012) for reptiles and amphibians, American Ornithologists' Union (2014) for birds, and Baker *et al.* (2003) for mammals. Sensitive plant and animal status is taken from the CDFW's CNDDB (2016a through d and 2011).

Habitat Evaluation Surveys

Field surveys and focused trapping for LAPM were performed by Mr. Philippe Vergne of ENVIRA who holds a USFWS 10(a) 1(b) permit to trap and handle Stephens' and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-4); a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for above mentioned species and the Mohave Ground Squirrel, the LAPM, Palms Springs pocket mouse, Palm Springs round-tailed ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, northwestern San Diego pocket mouse, and Dulzura pocket mouse; and a CDFW Scientific Collector Permit.

Mr. Vergne also conducted a general biological assessment of the plant and wildlife species on site. In addition, he noted site characteristics such as soils, topography, the condition of the plant communities, and evidence of human use of the site.

Trapping Surveys

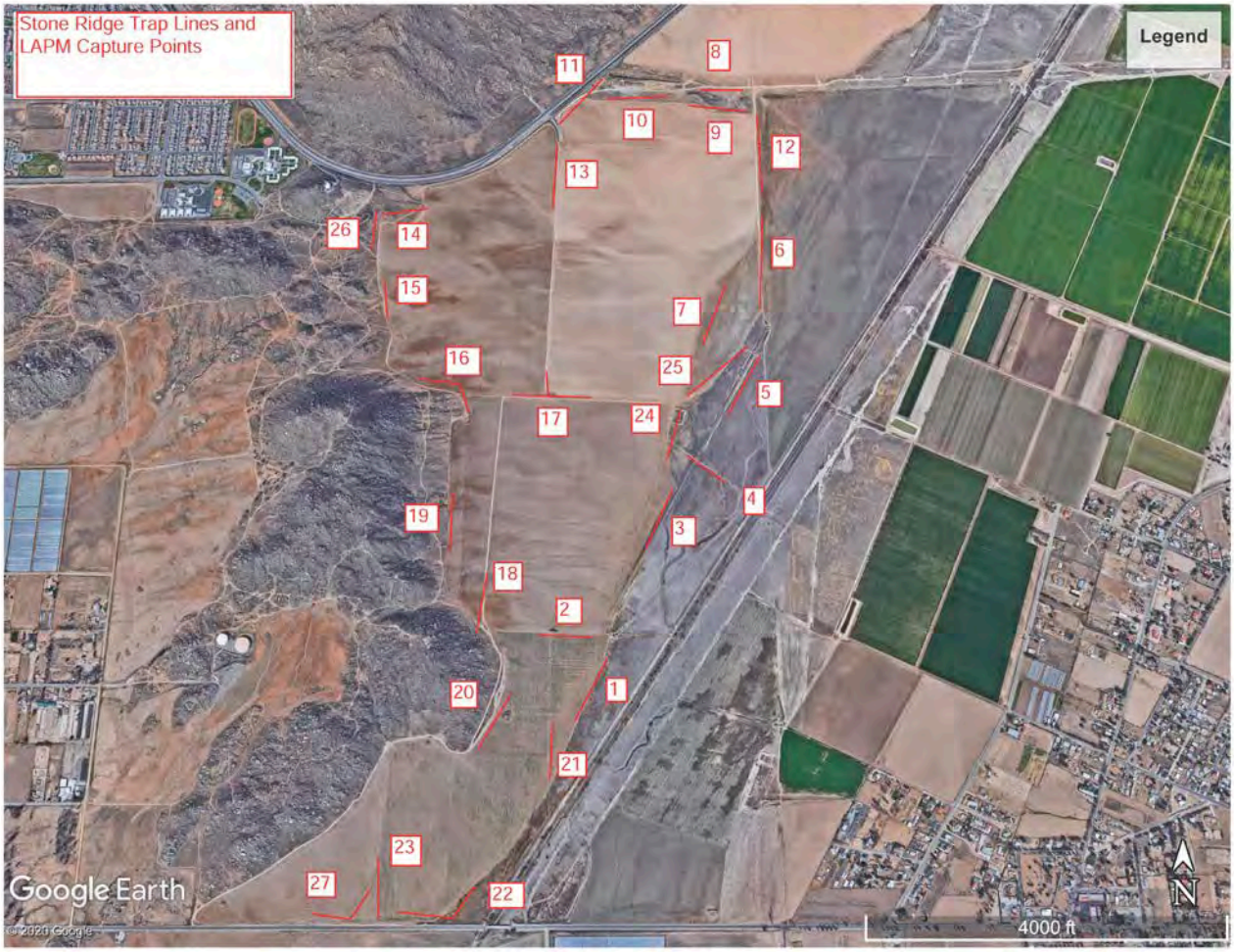
Trapping was conducted according to protocols established for small mammal species surveys. The protocol calls for five consecutive nights of trapping, conducted when the animal is active above ground at night. Although initially two trapping sessions were deemed necessary to cover the project site by moving traps on each line with LAPM capture to another location, the entire project area was surveyed in eight days. The focused trapping survey was conducted from June 27 to July 5 of 2020.

Trapping Lines of 20 traps were set at trapping Areas 1 through 27 (Exhibit 2). Traps were placed in suitable habitat areas on the project, concentrating on locating traps in areas containing sandy soils, small mammal sign and open vegetation. Distance between traps varied according to sign from 5 to 12 meters apart.

Each trap was baited with a mixture of bird seed and rolled oats placed at the back of the traps. The traps were left in place, set at dusk each night and inspected once during the night and at dawn each morning. All animals were identified and released at the point of capture. LAPM were passively marked with magic marker. The traps on each line with an LAPM capture were moved post capture to another trapping area within the project boundary.

Notes and photographs were taken on the habitat conditions where the traps were placed. The weather conditions at the time of the trapping studies were also noted.

Exhibit 2. Stone Ridge LAPM Trap Lines 2020 Survey



Results Research

From historical research in the area and within the proposed project footprint, several endangered and special concern species were identified as occurring on site or in the vicinity of the project. They are the Stephen's kangaroo rat-SKR, the LAPM, the San Diego pocket mouse-CHFA, and the San Diego desert woodrat-NEBR.

The LAPM was captured on portions of the property during trapping surveys conducted in 2002, 2005 and 2006 as part of a larger project that encompassed the LAPM survey area portions of which were within the Stone Ridge Site, and a relocation trapping conducted for SCE on the easement located on the northeastern border of the property.

For the animal species potentially present, including the SKR and LAPM, specific survey protocols are required to establish presence or absence. These specific survey protocols are required for areas where impacts may occur to the sensitive species or their occupied habitat. The remaining species are usually identified through casual observation while trapping for targeted species.

Potential Sensitive Biological Resources

Stephens' Kangaroo Rat

The Stephens' kangaroo rat (*Dipodomys stephensi*)-SKR prefers open areas with sparse perennial cover. This species occurs in areas of loose soil where the soil depth is at least 0.5 meter (Price and Endo 1989). SKR will also inhabit disturbed areas such as fallow fields by using the burrows of other rodents, including the Pocket Gopher and the California Ground Squirrel (O'Farrell 1989).

Like all kangaroo rats, SKR is primarily a seedeater, feeding on the seeds of both annual and shrub species. It also feeds on green vegetation and insects when these are available. Being a primarily dry biome species, kangaroo rats obtain nearly all of their water from the food they eat, and can subsist indefinitely on water extracted from dry seeds. They forage in open ground and underneath shrubs. Burrows are dug in loose soil.

From past and current trapping surveys SKR presence is documented within the project boundaries.

Los Angeles Pocket Mouse

The LAPM is one of two pocket mice found in this area of San Bernardino County. Both the LAPM and the San Diego pocket mouse occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams, 1986). The present known distribution of this species extends from Rancho Cucamonga east to Morongo and south to the San Diego County border.

The LAPM forages in open ground and underneath shrubs. Pocket mice in general dig burrows in loose soil, although this has not been completely documented for this subspecies.

The LAPM is a CSC. CSC designation of species is based on a series of publications prepared by the California Department of Fish and Game (Now CDFW) on declining species of mammals, birds, fishes, amphibians and reptiles. The documents were intended to focus attention on declining wildlife in California, species that are not currently listed but may merit listing under the California Endangered Species Act (CESA). Some of the species identified in these documents have been subsequently listed or are provided protection under provisions in CESA. Others have remained on the CSC list, and have not been elevated to a greater status of protection. The reasons are many, including a lack of understanding on

the specific numbers of individuals and populations, the habitats occupied by the species, and the threats to those habitats.

The MSHCP outlines four conservation objectives for this species. These objectives include the conservation of at least 2000 acres of suitable LAPM habitat within each of seven Core units for a total 14,000 acres and an additional 10,000 acres of suitable habitat outside of the seven Core areas.

From past and current trapping surveys LAPM presence is documented within the project boundaries.

Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse (*Chaetodippus fallax pallidus*) - CHFA occurs in open, sandy areas in the valleys and foothills of southwestern California.

The range of this species extends from Orange County to San Diego County and includes Riverside and San Bernardino Counties. This mouse is a CSC, whose historic range has been reduced by urban development and agriculture.

From past and current trapping surveys CHFA presence is documented within the project boundaries.

San Diego Desert Woodrat

The San Diego desert woodrat (*Neotoma bryanti AKA lepida*) is a relatively wide-ranging species extending along the coast of California from south of San Francisco through to the border with Baja California. This species also occurs in the Central Valley and the deserts of southern California and extends along the desert side of the Sierra Nevada into southeastern Oregon.

The coastal species of desert woodrat, the San Diego desert woodrat, prefers scrub habitats such as coastal sage scrub, chaparral and alluvial fan sage scrub. It is more common in areas with rock piles and coarse sandy to rocky soils throughout coastal southern California. The coastal subspecies is a CSC; its historic range has been impacted by the conversion of scrub habitats into residential, commercial and industrial use.

This species has been documented as occurring immediately to the west and north of the proposed project area. One individual was captured on site during current survey.

Weather Conditions

Weather conditions did not vary much during the course of the trapping survey. Night temperatures were in the mid-fifties. Morning temperatures were in the mid- sixties, in degrees Fahrenheit. Skies were clear. Table 1 summarizes the daily weather conditions.

Day	Night Temp F.	Morning Temp F.	Cloud Cover %	Wind MPH
1	56	54	0 Clear	0
2	55	54	0 Clear	0
3	57	55	0 Clear	0-2
4	54	54	0 Clear	0-2
5	57	56	0 Clear	0
6	58	58	0 Clear	0
7	55	54	0 Clear	0
8	57	55	0 Clear	0

Topography and Soils

The topography on the property is mostly flat with a slight slope to the southwest.

In general, surface soils on site are mostly Ramona, Greenfield, Monserrat and Hanford sandy loam, and pockets of sand in the small washes and along roads and base of the wester rock-outcrops (Soil Conservation Service 1980).

Limited scouring and alluvial processes still occur on site from the sheet flow and within the San Jacinto floodplain drainage.

Surrounding Land Uses

The San Jacinto drainage occurs to the east and beyond that agricultural fields. Open space occurs to the west, and Ramona Expressway borders the northern boundary.

Plant Communities

Most of the property has been under agriculture for years and has been recently disked and planted. Areas of disturbed annual grasslands, open sage scrub occur to the north, disturbed annual grasslands and The southern third is dominated by California Sagebrush (*Artemisia californica*), Brittlebush (*Encelia farinosa*), White Sage (*Salvia apiana*), and California Buckwheat (*Eriogonum fasciculatum*), and the understory is heavily dominated by nonnative grasses such as Red Brome (*Bromus madritensis* ssp. *rubens*), and forbs.

A detailed list of plant species observed is provided in Appendix A.

Disturbances

Dirt roads, limited illegal trash dumping, fences, man-made berms, and power and water utility lines occur on site.

Wildlife

Wildlife activity was low and mostly confined to the areas bordering the agricultural fields.

Bird species were the most commonly seen. Reptiles were observed mainly in the open scrub and rocky habitats within the scrub. No amphibians were observed on the property although suitable habitat occurs on site.

Wildlife observations were based on calls, songs, scat, tracks, burrows and direct observation of animals. A list of wildlife species observed is found in Appendix B.

Trapping Results

Fourteen individuals of the LAPM were captured during the surveys as shown in Exhibit 3. Most of the LAPM were captured in disturbed areas at the edge of roads or berms around the agricultural fields. The distribution as in the past appears limited and spotty probably due to current and past site use.

Seven species were captured, including the LAPM, the SKR, the Deer Mouse (*Peromyscus maniculatus*)-PEMA, the Brush Mouse (*Peromyscus boylii*)-PEBO, the Western Harvest Mouse (*Reithrodontomys megalotis*)-REME, the Northwestern San Diego Pocket Mouse (*Chaetodipus fallax pallidus AKA fallax*)-CHFA, and the San Diego Desert Woodrat (*Neotoma bryanti*)-NEBR as given in Table 2 Stone Ridge Trapping Results.

Exhibit 3. LAPM and SKR Capture Points

Table 2. Trapping Results Stone Ridge

Trap Line	Trap Days	LAPM	SKR	PEMA	CHFA	PEBO	REME	NEBR
1	100			2		2		
2	100			3				
3	100			4		1		
4	100			7	1			
5	100			3	1	1		
6	20	1	1 (SAM)		2			
7	100			4				
8	60	1		2			1	
9	100				2	1	2	
10	100			3	2	2		
11	20	1	1 (AM)	1	1			
12	20	2	1 (AF)		1			
13	20	1		1	1			
14	20	2	1 (AM)		1		1	
15	100			4				
16	100			2	3	1		
17	20	1						
18	100			3				
19	100			1	3	1		
20	20	2			1			
21	100	0	0	0	0	0	0	
22	40	1		3	1		1	1
23	100			2				
24	20	1	1 (AM)	1	1			
25	60	1		2	1	2	1	
26	100			2	3			
27	100			3	2	1		
TOTAL	**2000**	**14**	**5**	**53**	**27**	**12**	**6**	**1**

Conclusion

A total of 7 small mammal species were captured during the trapping surveys.

Fourteen (14) individuals of the LAPM were captured during the current surveys. The LAPM were distributed mostly on the North and Eastern portion of the property not currently under agriculture, and along dirt roads and power easements. The LAPM does not currently occur within the highly impacted agricultural fields on site. It should be noted that since per permit traps were pulled on the lines with

LAPM and SKR capture after the first night of capture that the number of animals present is probably higher than that tallied.

The MSHCP species account for LAPM depicts portions of the property as a potential core habitat area. Based on current and past surveys and data base records the LAPM on site and within immediately adjacent areas to the east occurs sporadically in the area in trace densities.

One of the competitive species with LAPM, as far as food source, is the harvest mouse (Brown and Lieberman 1973). Since both the LAPM and harvest mouse were captured (20 individuals) it is fair to assume that for the present the occupied portions of the property supports a trace and dispersed number of individuals. The trace densities are consistent with documented low animal densities of 0.7 to 1.7 per hectare (Chew and Butterworth 1964).

REFERENCES

American Ornithologist Union. 2014. Fifty-Fifth Supplement to the American Ornithologist Union Checklist of North American Birds. July 30.

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. Revised checklist of North American mammals north of Mexico. Occasional Papers of the Museum, Texas Tech University 223.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley.

Bartholomew, G. A., and T. J. Cade. 1957. Temperature regulation, hibernation, and estivation in the little pocket mouse, Perognathus longimembris. J. Mammal. 38:60-72

Beatley, J. C. 1976b. Rainfall and fluctuating plant populations in relation to distributions and numbers of desert rodents in southern Nevada. Oecologia (Berlin) 24:21-42.

Burt, W. H., 1986. A Field Guide to the Mammals in North American North of Mexico. Houghton Mifflin Company, Boston, Massachusetts.

Brown, J. H., and G. A. Lieberman. 1973. Resources utilization and coexistence of seed eating desert rodents in sand dune habitats. Ecology 54:788-797.

California Department of Fish and Game (CDFW) California Natural Diversity Database (CNDDB). 2016a. State and Federally Listed Endangered, Threatened, and Rare Plants of California. State of California, The Resources Agency, Department of Fish and Game, Resource Management and Planning Division, Biogeographic Data Branch. Retrieved from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390. Updated October 2016.

2016b. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. Retrieved from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383. Updated October 2016.

2016c. State and Federally Listed Endangered and Threatened Animals of California. State of California, The Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database. Retrieved from:

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405. Updated October 2016.

2014a. RareFind Database Program, Version 5. Data updated August 5.

2014b. Special Animals (848 taxa). State of California, The Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database. Retrieved from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93563. Summer 2014.

Chew, R. M., and B. B. Butterworth. 1964. Ecology of rodents in Indian Cove (Mojave Desert), Joshua Tree National Monument, California. J. Mammal. 45:203-225.

Dudek and Associates (Dudek). 2003. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Final MSHCP Volume I. Prepared for County of Riverside, Transportation and Land Management Agency.

Envira. 2006. Los Angeles Pocket Mouse Presence/Absence Trapping Studies and Habitat Assessment for the San Jacinto River Valley Master Development, Facilities Improvement, and Conservation Plan. Reaches One and Two in Riverside County, California.

Envira. 2005. Los Angeles Pocket Mouse Presence/Absence Trapping Studies EMWD

Envira. 2008. Los Angeles Pocket Mouse Presence/Absence Trapping Studies and relocation SCE

Hall, E.R., 1981. The Mammals of North America, Volumes I and II. John Wiley and Sons, New York, New York.

HELIX Environmental Planning, Inc. (HELIX). 2016a. Riverpark Mitigation Bank Development Plan. Prepared for Hillcrest Homes, Inc. August 16.

2016b. Riverpark Mitigation Bank Long-term Management Plan. Prepared for Hillcrest Homes, Inc. May 23.

Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press.

Ingles, L.G., 1965. Mammals of the Pacific States. Stanford University Press, Stanford, California

Laudenslayer, Jr., W.F., W.E. Grenfell, Jr., and D.C. Zeiner, 1991. Check-list of the a mphibians, Reptiles, Birds and Mammals of California. California Fish and Game 77:109-141.

Kenagy, G. J. 1973a. Daily and seasonal patterns of activity and energetics in a heteromyid rodent

Knecht, A.A. 1971. Soil Survey of Western Riverside Area, California. USDA, Soil Conservation Service, USDI, and Bureau of Indian Affairs in cooperation with UC Agriculture Experiment Station, Washington D.C. 158 pp. plus appendices and maps.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. 2013. Official Soil Series Descriptions. Available online at http://soils.usda.gov/technical/classification/osd/index.html.

Stebbins, R.C., 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin, Boston.

U.S. Fish and Wildlife Service, 1996. Review of plant and animal taxa for listing as endangered or threatened species; notice of review. Federal Register Vol. 61, No. 40.

U.S. Fish and Wildlife Service, 1998a. Emergency Rule to List the San Bernardino Kangaroo Rat, San Bernardino and Riverside Counties in Southern California, as Endangered. Vol. 63, No. 17, pp. 3835 - 3843.

Williams, 1986. Mammalian Species of Special Concern in California. Wildlife Management Division Adm. Report 86-1 prepared for The Resources Agency, California Department of Fish and Game.

Appendix A - Plant Species Observed

Flora

* denotes nonnative plant species
† denotes special-status species

ANGIOSPERMAE: DICOTYLEDONES	**DICOT FLOWERING PLANTS**
Asteraceae	**Sunflower family**
Ambrosia psilostachya	Western ragweed
Encelia farinosa	Desert brittlebush
Boraginaceae	**Borage family**
Amsinckia menziesii	Fiddleneck
Brassicaceae	**Mustard family**
**Hirschfeldia incana*	Short-podded mustard
Euphorbiaceae	**Spurge family**
Croton californica	Croton
Eremocarpus setigerus	Doveweed
Fabaceae	**Pea family**
**Erodium cicutarium*	Red-stemmed filaree
Polygonaceae	**Buckwheat family**
Eriogonum fasciculatum var. *foliolosum*	Interior California buckwheat
**Rumex crispus*	Curly dock
Salicaceae	**Willow family**
Salix lasiolepis	Arroyo willow
Solanaceae	**Nightshade family**
**Nicotiana glauca*	Indian tobacco
ANGIOSPERMAE: MONOCOTYLEDONAE	**MONOCOT FLOWERING PLANTS**
Poaceae	**Grass family**
**Bromus madriensis*	Red brome
**Schismus barbatus*	Mediterranean grass

Taxonomy and nomenclature follow Hickman 1993 and Munz 1974.

Appendix B – Animal Species Observed

† denotes special-status species

FAUNA

REPTILIA	**REPTILES**
Iguanidae	**Iguanas and their allies**
Uta stansburiana	Side-blotched lizard
AVES	**BIRDS**
Cathartidae	**Vultures**
Cathartes aura	Turkey vulture
Falconidae	**Caracaras and falcons**
Falco sparverius	American kestrel
Columbidae	**Pigeons and doves**
Zenaida macroura	Mourning dove
Tytonidae	**Barn owl**
Tyto alba	Barn owl
Alaudidae	**Larks**
Eremophila alpestris	Horned lark
Corvidae	**Crows and ravens**
Corvus brachyrhynchos	American crow
Emberizidae	**Warblers, sparrows, blackbirds and relatives**
Sturnella neglecta	Western meadowlark
Fringillidae	**Finches**
Carpodacus neomexicanus	House finch
MAMMALIA	**MAMMALS**
Leporidae	**Rabbits and hares**
Sylvilagus audubonii	Audubon’s cottontail
Lepus californicus	Black-tailed jackrabbit
Sciuridae	**Squirrels, chipmunks and marmots**
Spermophilus beecheyi	California ground squirrel
Geomyidae	**Pocket gophers**
Thomomys bottae	Botta’s pocket gopher

Heteromyidae	**Pocket mice and kangaroo rats**
†*Dipodomys stephensi*	Stephens' kangaroo rat
†*Perognathus longimembris brevinasus*	Los Angeles pocket mouse
†*Chaetodippus fallax pallidus*	Northwestern San Diego pocket mouse
Cricetidae	**Cricetine mice and rats**
Peromyscus boylii	Brush mouse
Peromyscus maniculatus	Deer mouse
Reithrodontomys megalotis	Western harvest mouse
†*Neotoma bryanti*	San Diego Desert woodrat
Canidae	**Foxes, wolves and relatives**
Canis latrans	Coyote

Nomenclature follows Garth & Tilden 1986, Hall 1981, Laudenslayer et al. 1991, and Stebbins 1966.

Appendix C – Site Photographs

Adult Male LAPM

Looking North Across Eastern Portion of Site

Looking at Drainage Area

Looking South from Potato Fields

ENVIRA

Aquaculture Fisheries Environmental

P.O. Box 2612, Ramona, California, USA 92065

Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

Martin Rasnick August 1, 2021

Glen Lukos and Associates

Subject: Los Angeles Pocket Mouse Evaluation for Stone Ridge Proposed Truck Turn Areas

Looked at the aerials with additional needs for the proposed Stone Ridge project. The small changes for safe Truck Turn Areas all occur adjacent to active and paved existing streets. The edge of these areas are hard packed, currently subject to egress and ingress from occurring traffic activities.

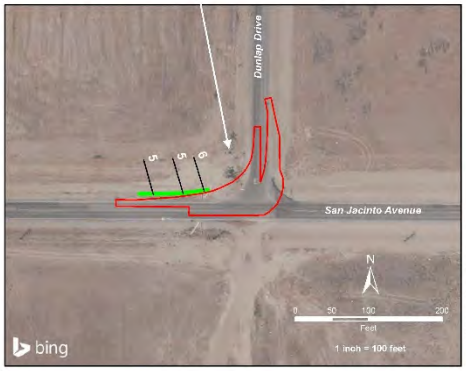
In our professional opinion, these areas are not suitable for Los Angeles Pocket mouse nor Stephens' kangaroo rat. Implementation of the changes needed in those areas will have no impact on the above mentioned species.

Sincerely,

Philippe Vergne

Philippe Vergne

Principal



Truck Turn

RWQCB Non-Wetland Waters of the State/ CDFW non-Riparian Stream

5' Width of Feature in Feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kortuncu, GLA
Date Prepared: July 27, 2021

STONERIDGE COMMERCE CENTER

Alternative Truck Access Route Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit X

ENVIRA

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Project Background

Philippe Vergne of ENVIRA, conducted a protocol trapping survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)-(LAPM) on an estimated 582.9+-acre (65 acres of potential LAPM within survey area) property located in the Nuevo area of Riverside County, California (Exhibit 1). The assessment was required to confirm the presence of LAPM, and other potential sensitive small mammal species in drainages and upland habitat located on the property. The protocol trapping survey was conducted from June 27 to July 5 of 2020.

For decades, substantial portions of the Stoneridge Commerce Center Project (Project) site have been subject to agricultural use resulting in intensive ground/soil disturbance. Representative activities include irrigated alfalfa farming, barley and oat dry-land farming, nurseries, potato farming, disking for weed abatement, fire suppression, and sheep grazing. The site is mostly flat with elevations ranging from 1,400 to 1,600 feet above mean sea level (amsl), with a majority of the site at 1,450 feet amsl or lower. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

Los Angeles Pocket Mouse

The LAPM is a small heteromyid rodent, and is one of two pocket mice found in this area of Riverside County. Both the LAPM and the San Diego pocket mouse occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams, 1986). The present known distribution of this species extends from Rancho Cucamonga east to Morongo and south to the San Diego County border.

The LAPM forages in open ground and underneath shrubs. Pocket mice, in general, dig burrows in loose soil, although this has not been completely documented for this subspecies.

The LAPM is a CSC. CSC designation of species is based on a series of publications prepared by the California Department of Fish and Game (Formerly CDFG and now CDFW) on declining species of mammals, birds, fishes, amphibians and reptiles. The documents were intended to focus attention on declining wildlife in California, species that are not currently listed but may merit listing under the California Endangered Species Act (CESA). Some of the species identified in these documents have been subsequently listed or are provided protection under provisions in CESA. Others have remained on the CSC list, and have not been elevated to a greater status of protection. The reasons are many, including a lack of understanding on the specific numbers of individuals and populations, the habitats occupied by the species, and the threats to those habitats.

The MSHCP outlines four conservation objectives for this species. These objectives include the conservation of at least 2000 acres of suitable LAPM habitat within each of seven Core units for a total 14,000 acres and an additional 10,000 acres of suitable habitat outside of the seven Core areas. Portions of the current property are within a designated core habitat.

Project Findings

Fourteen (14) individuals of the LAPM were captured during the current surveys. The LAPM were distributed on the North and Eastern portion of the property not currently under agriculture, and along dirt roads and power easements. The LAPM does not currently occur within the highly impacted agricultural fields on site.

Densities within the occupied habitat are consistent with documented densities for this species of less than 2 animals per hectare.

The MSHCP species account for LAPM depicts portions of the property as a potential core habitat area. Based on current and past surveys and data base records the LAPM on site occurs sporadically in the area in trace densities.

Based on the survey, of the 14 animals captured only a small number (4) would be impacted by project implementation. The majority of the LAPM occur along dirt roads, on the development boundaries and away from the active agricultural fields. This road network might allow a tenuous, connectivity to other potential and documented LAPM habitat in the Double Butte area from the eastern occupied habitats.

The Double Butte area is isolated from identified core populations of LAPM. Such isolation can result in genetic drift and loss of heterogeneity in the populations, leaving small local populations at high risk of extirpation. The estimated 227.4 acres of potentially suitable LAPM habitat for Double Butte, noted in the Golder Associates 2014 report is significantly larger than the habitat patch requirements for small mammals long-term survival which varied from one hectare to 10 hectares.

The connectivity to the Northern populations have been pretty much eliminated by construction of the Ramona Expressway.

Therefore in our professional opinion, the LAPM population within the Project footprint site is small, limited in area of distribution, and of limited value to the population in the less disturbed core habitat. The animals on the eastern and northern end of the study area will not be impacted by Project implementation. Movement of these animals will not be affected by Project implementation anymore than they have been by ongoing agricultural activities.

Appendix E Delineation of Wetlands and Waterways

Appendix E1 Waters of the United State Assessment

THE STONERIDGE COMMERCE CENTER PROJECT

Jurisdictional Waters of the United States Assessment

August 2023

U.S. Geological Survey 7.5-Minute
Perris and Romoland Quadrangles
San Bernadino Meridian, Riverside County, California

Prepared By

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Certification

The undersigned certify - under penalty of law, that they have personally examined and are familiar with the information submitted in this document and all appendices and that, based on an inquiry of those individuals immediately responsible for obtaining the information, believe that the information is true, accurate, and complete. The undersigned are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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TABLE OF CONTENTS

COMMON ACRONYMS AND ABBREVIATIONS

APT	Antecedent Precipitation Tool
BAYVIEW	United States versus Riverside Bayview
CFR	Code of Federal Regulations
CWA	Clean Water Act
ESRI	Environmental Systems Research Institute
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FEMA	Federal Emergency Management Agency
GIS	Geographic Information System
GPS	Global Positioning Systems
HUC	Hydrologic Unit Code
JACOBS	Jacobs Engineering Group
KMZ	Keyhole Markup Language Zipped (file)
MESA	Mapping Episodic Stream Activity Field Guide
NOREAS	NOREAS Inc.
NRCS	National Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate Wetland
OHWM	Ordinary High-Water Mark
JA	Jurisdictional Waters of the United States Assessment
RAPANOS	Rapanos versus United States
RHA	Rivers and Harbors Act
RPW	Relatively Permanent Waters– *Term of Art* used for (a) 3 through 5 Waters, that meet the Relatively Permanent Standard
RWQCBS	Regional water quality control boards
SACKETT	Sackett versus Environmental Protection Agency
SWANCC	Solid Waste Agency of Northern Cook County versus Army Corps
SCOTUS	Supreme Court of the United States
TNW	Traditional Navigable Waters - *Term of Art* used for (a) 1 Waters that are tidal or used in Interstate, or foreign commerce
UPL	Upland
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WoUS	Waters of the United States

1.0 INTRODUCTION AND SUMMARY OF FINDINGS

This Jurisdictional Waters of the United States Assessment (Report or JA) was prepared for the Stoneridge Commerce Center Project (hereafter referred to as the Project). This JA evaluates three distinct Project Components - the Project Footprint, Offsite, and Conservation areas, and the surrounding localized watershed, for the presence of features that may be subject to regulation by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA) (Appendix A, Figure 1). The Project includes a disturbance footprint (Project Footprint), off-site roadway improvements (Offsite), and conservation (Conservation) (Appendix A, Figure 2). The Project Footprint and Conservation areas are in unincorporated Riverside County, California. The Project's off-site roadway improvements (Offsite) are predominately within the existing paved portion of roadways, other than the small expansion of roadway to accommodate a lift station (or pump station that uses a collection system to move material from a lower to a higher elevation) and various discrete intersection modifications to address the use of the area for truck traffic.

For decades, the majority of the Project Components have been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography.

This JA evaluates the Project Components for the presence of federal jurisdictional Waters of the United States (WoUS) and wetlands, pursuant to the regulations and regulatory guidance outlined within the existing "2023 WoUS Rule," implemented in March 2023. This evaluation has been completed using data acquired from current and historic imagery, hydrologic databases, analytic tools, and physical on the ground analyses/measurements. This JA provides a description and photo documentation (Appendix A, and Appendix B) of the features observed within the Project Footprint, Offsite, and Conservation areas, and a discussion of their regulatory status.

Please note that this JA was conducted following guidance in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (USACE 2008). The ordinary high-water mark (OHWM) of potential other WoUS were evaluated in the field following the guidance in A Field Guide to the Identification of the Ordinary High-Water Mark in the Arid West Region in the Western United States (USACE 2008). Subject matter experts assessed the Project Components for the presence of WoUS. In November 2019, September 2020, April 2021, January, June, and July, 2023.

The evidence obtained implies that the Project include a notable amount of WoUS, and USACE defined wetlands (Appendix A - Figure 3). As features either bear signs of an OHWM, or satisfy the USACE criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential WoUS. The features observed are not isolated. As flows from them, via the San Jacinto River, eventually connect with Canyon Lake, then to Lake Elsinore and the Santa Ana River, before reaching the Pacific Ocean. These physical connections reinforce their potential status as WoUS.

But please note that within the Project Footprint, Offsite and Conservation areas there are signatures that meet the general definition and description for topographic lows, rills, gullies, swales, features excavated and created wholly in - and that drain only upland areas, and erosional signatures like those identified in Title 33 CFR a(8); as swales and erosional features (e.g., gullies and small washes) characterized by low

volume, infrequent, or short duration flow. The aforementioned signatures do not meet the definition of water conveyances that are tributary to (a)1 through (a)(5) Waters, nor do they satisfy the "relatively permanent standard." Furthermore, the signatures do not have past, present, or potential to contribute of interstate or foreign commerce, nor do they have physical capabilities for use by commerce. As a result, none of these signatures were determined to be potential WoUS.

To that end, this Report presents NOREAS Inc. (NOREAS) and Jacobs Engineering Group (JACOBS) best professional judgment at estimating special aquatic resource area boundaries using the most up-to-date regulations, written policies, and guidance from the USACE.

2.0 REGULATORY SETTING

In a general sense, Section 401 of the Clean Water Act (CWA) requires authorized activities (i.e., those actions that occur deliberately by means of a discretionary permit - or license) which result in a discharge to WoUS, to obtain state certification to safeguard that the discharge will comply with the provisions of the act. In California, the regional water quality control boards (RWQCBs) administer this certification program. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into WoUS. Additionally, Section 404 of the CWA establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into WoUS, including wetlands. The USACE's implementing regulations are found in Title 33 Code of Federal Regulations (CFR) Parts 320 to 332.

2.1.1 2023 Waters of the U.S. Rule

The current applicability of the CWA, in accordance with the "2023 WoUS Rule," must be harmonized with the Supreme Court of the United Stated (SCOTUS) rulings on United States versus (v.) Riverside Bayview (BAYVIEW), Solid Waste Agency of Northern Cook County v. USACE (SWANCC), Rapanos v. United States (RAPANOS), and Sackett v Environmental Protection Agency (SACKETT) rulings. To that end, the 2023 rule establishes a definition of "WoUS" that includes three parts:

- Paragraph (a) jurisdictional waters;
- Paragraph (b) exclusions; and
- Paragraph (c) definitions.

The 2023 Rule defines the following WoUS. There are no changes from the Pre-2015 Waters Rule in the definitions of a(1), a(2), and a(4) Waters. However, there are nuance changes to a(3) Waters, and there substantial changes to identifying a(5) Waters. In general, the 2023 Rule does not consider "isolated" as described in SWANCC, nor does it consider a need to have ties to interstate commerce (BAYVIEW). This rule relies entirely on the definitions below for TNWs, and their impoundment and tributaries which are established by having a "Significant Nexus" by contributing to the biological, chemical, or physical characteristics of a TNW.

During the first two months of the 2023 Rule implementation, several court cases have enjoined the use of the rule and subsequently reverted to the Pre-2015 Rule. Currently 27 States are using the Pre-2015 Rule. Nonetheless, California has not been enjoined and continues to fall under jurisdiction of the 2023 Rule. As such, on 26 May 2023 SCOTUS ruled on SACKETT. In general, this ruling found that the CWA's use of "waters" encompasses "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' that are described in ordinary parlance as 'streams, oceans, rivers, and lakes.'" 547 U.S., at 739 (quoting Webster's New International Dictionary 2882 (2d ed. 1954) (Webster's Second); original alterations omitted). The court appears to have struck down the use of the Significant Nexus Analysis, use of "Similarly Situated Waters" being combined to have a biological, chemical, or biological nexus to a TNW. ***Further, the court determined that WoUS extent only to tributaries of TNWs that have Relatively Permanent Flows, such that they flow or are inundated unless there is unusually prolonged drought, or the ebb of a tide.***

On 26 May 2023, the USACE issued the following paragraph: "The U.S. Environmental Protection Agency and USACE (the agencies) are in receipt of SCOTUS's 25 May 2023 decision in SACKETT. In light of this decision, the agencies will interpret the phrase "WoUS" consistent with SCOTUS's decision in SACKETT. The agencies continue to review the decision to determine next steps." Based on the fact that the USACE states that they will interpret WoUS consistent with the Court Ruling," the likely result will be the changes

identified below. However, until formal guidance from the U.S. Environmental Protection Agency and USACE is received, the results of how this decision will affect projects is speculative. All actions will need to be evaluated on a case-by-case basis using the guidance available, at the time.

Below are the 2023 WoUS categories, and the likely effect the SACKETT may have on their jurisdiction.

2023 WoUS Rule Definitions

a(1) Waters - Traditional navigable waters, the territorial seas, and interstate waters. Waters which are currently used or were used in the part 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.

These Waters remained unchanged from the "Pre-2015 WoUS Rule" and do not appear to conflict with the WoUS definition from SACKETT.

- ✓ Interstate Waters have been Clarified in the Preamble. They include Lake, ponds, and wetlands crossing state boundaries. These waters are jurisdictional in their entirety.

- ✓ Tributaries crossing interstate boundaries are jurisdictional for those portions of the tributary - of the same stream order, that crosses the state line.

a(2) Impoundments - Waters affected by discrete barriers, like natural or human-made barriers. This applies to both impoundments of previously jurisdictional waters, and impoundments that now qualify at the time of assessment.

These Waters remained unchanged from the "Pre-2015 WoUS Rule" and do not appear to conflict with the WoUS definition from SACKETT.

- ✓ This does not include other (a)5 Waters that become impounded, though they may be jurisdictional under different criteria.

- ✓ Paragraph (a)(2) of the final rule includes impoundments of "WoUS." Impoundments are distinguishable from natural lakes and ponds because they are created by discrete structures like dams or levees that typically have the effect of raising the water surface elevation, creating, or expanding the area of open water, or both.

- ✓ Impoundments can be natural (like beaver ponds) or artificial (like reservoirs). The agencies consider paragraph (a)(2) impoundments to include:
  (1) impoundments created by impounding one of the "WoUS" that was jurisdictional under this rule's definition at the time the impoundment was created; and
  (2) impoundments of waters that at the time of assessment meet the definition of "WoUS" under paragraph (a)(1), (a)(3), or (a)(4) of this rule.

(a)(3) Tributaries - Tributaries include natural, man-altered, or man-made water bodies that flow directly or indirectly into an (a)(1) Water, or an (a)(2) Impoundment. Jurisdictional tributaries must meet the relatively permanent standard (i.e., have flowing or standing water year-round or continuously during certain times of the year [RPW], or have a significant nexus [tributaries that alone - or in combination, significantly affect]) to an (a)(1) Water. For tributaries, interstate waters

include the portion of the tributary - of the same stream order, as the point that crosses or serves as a state line.

SACKETT decision appears to limit the (a)3 Tributaries to only Permanent or Relatively Permanent Waters by excluding the vagaries of significant nexus, and they would need to be evaluated individually and not in conjunction with similarly situated Waters.

- ✓ Tributaries can include rivers, streams, lakes, ponds, and impoundments - as well as ditches and canals. Not all tributaries are jurisdictional under the final rule.

- ✓ To be jurisdictional, tributaries must meet either the relatively permanent standard, or the significant nexus standard. The final rule preamble explains that relatively permanent waters include tributaries that have flowing or standing water year-round - or continuously during certain times of year. Relatively permanent waters do not include tributaries with flowing - or standing water, for only a short duration in direct response to precipitation.

(a)(4) Adjacent Wetlands - No change to the definition of "wetlands," or "adjacent" to an (a)(1) Waters.

SACKETT has greatly affected what qualifies as adjacent. It appears to have constrained adjacent to only an unbroken surface connection.

- ✓ Unbroken surface or shallow subsurface connection - to a jurisdictional water, even though non-jurisdictional features.

- ✓ Are close enough to have significant water quality and aquatic ecosystem effects, alone - or in combination with, other jurisdictional tributaries and adjacent wetlands. It appears the Sackett case would eliminate wetlands that rely on a significant nexus analysis or only have a ground water connection to a WoUS

(a)(5) Waters are not identified in (a)(1) through (4) - Intrastate lakes and ponds, streams, and wetlands not identified as part of earlier qualifications that meet the two tests below. (a)(5) Waters not identified in (a)(1) through (4). It appears the Sackett decision has removed (a)5ii Waters from jurisdiction.

- ✓ Intrastate lakes and ponds, streams, and wetlands not identified as part of earlier qualifications that meet the two tests below.
    - o i. Relatively Permanent Standard - Flowing or standing water year-round, or continuously during certain times of year, indirectly or directly to traditional navigable waterways, territorial seas, interstate waters, or impoundments, OR to relatively permanent tributaries to those waters.

    - o ii. Significant Nexus Standard - Feature can "significantly affect" biological, chemical, or physical characteristics of traditional navigable waterways, territorial seas, and interstate waters. Unlike for tributaries and adjacent wetlands, this must be assessed on an individual basis.

SACKETT appears to remove these intermittent and ephemeral signatures jurisdiction under the CWA.

Summary of probable changes in CWA jurisdiction resulting from the SCOTUS Rulings:

Although the 2023 WoUS Rule includes the (a)(3) tributaries, (a)(4) Adjacent Wetlands, and a(5) Waters - outside the need to be used for interstate commerce, required post BAYVIEW. The final rule preamble notes that the agencies intend to address such waters in a future action.

The court concluded that the RAPANOS plurality[1] was correct: the CWA's use of "waters" encompasses "only those relatively permanent, standing or continuously flowing bodies of water 'forming geographic[al] features' that are described in ordinary parlance as 'streams, oceans, rivers, and lakes," and utilize several dictionary definitions for "waters" as "a. flowing water, or water moving in waves: The river's mighty waters. b. the sea or seas bordering a particular country or continent or located in a particular part of the world." They found in it difficult to reconcile these definitions with classifying "lands," wet or otherwise, as "waters." (RAPANOS plurality opinion) (BAYVIEW).

The SACKETT summation held that the "CWA extends to only those wetlands that are "as a practical matter indistinguishable from WoUS." This requires the party asserting jurisdiction over adjacent wetlands to establish "first, that the adjacent [body of water constitutes] …. 'water[s] of the United States,' (i.e., a relatively permanent body of water).

[1] RAPANOS - Four Justices concluded that the CWA's coverage did not extend beyond two categories: first, certain relatively permanent bodies of water connected to traditional interstate navigable waters and, second, wetlands with such a close physical connection to those waters that they were "as a practical matter indistinguishable from WoUS."

3.0 METHOD

Prior to performing field surveys, documentation relevant to the Project Components and surrounding area was reviewed using the methods and databases listed below.

3.1 Literature Reviews

Prior to conducting fieldwork, the following information was reviewed to determine watershed characteristics, locations and types of aquatic resources that may be present within the region:

- Perris and Romoland, California Topographic Map 7.5-minute USGS Maps (USGS 1987);
- 2023 color aerial photographs (Bing Maps 2023);
- Google Earth version 5.2.1.1588 (March 2023);
- Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO) (USDA-NRCS 2023);
- Natural Resource Conservation Service, Watershed Boundary Dataset (USDA-NRCS 2023b);
- Environmental Protection Agency Enviromapper for Water (EPA 2023);
- Federal Emergency Management Agency (FEMA 2023);
- National Wetlands Inventory (NWI) maintained by the US Fish and Wildlife Service (USFWS 2023);
- 2023 U.S. Environmental Protection Agency (EPA) WATERS GeoViewer Tool (epa.maps.arcgis.com/apps/webappviewer);
- 2023 EPA Antecedent Precipitation Tool (APT) (epa.gov/wotus/antecedent-precipitation-tool-apt);
- 2023 California National Climate Data Center (NCDC, 2023) Data.
- Biological Technical Report for Stoneridge Commerce Center. (GLA 2022a);
- Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. (GLA 2022b);
- Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021 (Hunsaker & Associates. 2021).

The Project Footprint, Conservation and Offsite areas were examined for existing mapped drainages and channel features, and followed to a termination point, or to an (a)1 through 5 Waters - also referred to Traditional Navigable Waters (TNW), Relatively Permanent Waters (RPW), etc. The intent of this database assessment was to determine where water may flow or terminate, and was used to determine efficient locations for visual inspections to occur in the field.

3.1.1 Aerial Photography

Historic and current aerial photography of the Project Footprint, Conservation and Offsite areas were reviewed, prior to and during the field assessments. Aerial photography was informative with deference to the state and function of land resources in both the present, and historic context. As, inundation and vegetative signatures on aerial images can imply the presence - or absence, of WoUS, or a stream system within a discrete location.

3.1.2 U.S. Fish and Wildlife Service NWI Data and EPA WATERS GeoViewer Tool

The U.S. Environmental Protection Agency (EPA) WATERS GeoViewer tool provided access to spatial data sets (Appendix A, Figures 4 and 5) - such as interactive Upstream/Downstream search capabilities, and interactive Watershed Delineation, to assist in determining the jurisdictional status of resources detected within the Project Footprint, Conservation and Offsite areas (epa.maps.arcgis.com/apps/webappviewer). Additionally, the Federal Emergency Management Agency (FEMA) flood zone is depicted in Appendix A, Figure 6. Furthermore, the National Wetland Inventory (NWI) – which is maintained by the U.S. Fish and

Wildlife Service (USFWS), was reviewed to support with the identification of potential aquatic resources within the Project Footprint, Conservation and Offsite areas (Appendix A, Figure 7). However, this database (i.e., the NWI) specifically rejects its use for regulatory jurisdictional review.

3.1.3 Antecedent Precipitation Tool

The Antecedent Precipitation Tool (APT) was also utilized to determine whether Project Footprint, Conservation and Offsite area observations are representative of typical climatic conditions (i.e., those that have been experienced over the past thirty years). This tool is also informative when assessing whether certain field conditions are observed during typical, as opposed to atypical rainfall cycles. The APT queries data from weather stations that are located within a 30-mile radius from the Project Components.

3.1.4 Topography

USGS topographic maps were reviewed as well. These maps tend to illustrate elevation contours, drainage patterns, and hydrography within the Project Footprint, Conservation and Offsite areas. USGS 7.5-Minute Topographic Quadrangles "Perris " and "Romoland" were evaluated to facilitate identification of potential drainage features within the Project Components - as indicated from topographic changes, blue-line features, or visible drainage patterns in order to characterized features.

3.2 Procedures and Field Data Collection Techniques

The delineation of signatures was conducted within the Project Footprint, Conservation and Offsite areas using a combination of on the ground quantification, remote sensing and ground verification via pedestrian surveys in 2019, 2020, 2021 and 2023. Assessment of the presence of an OHWM was based on observations - or evidence of flow, and unique characteristics indicating the presence of active water flow, shelving, drift lines, and disturbed vegetation. Or other indicators identified in the "Field Guide to Identification of the OHWM in the Arid West Region of the Western United States" (USACE 2008). OHWM characteristics in this region would primarily consist of sediment sorting, destruction of terrestrial vegetation, and a change in substrate in the feature as compared to the surrounding upland area. However, features were excluded from this assessment if they exhibited swales and erosional characteristics in accordance with USACE CWA Regulations Title 33 CFR Part 328.3(b) Not Waters of the United State[2].

Data collected included digital format GPS locations, and photos (Appendix B) of the Project Footprint, Conservation and Offsite areas. Both a routine off-site and on-site field determination was conducted for USACE-defined wetlands, and non-wetland WoUS and other published guidelines.

Typically, an area must meet criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential wetland under USACE jurisdiction. Features that did not meet the hydrophytic vegetation wetland criteria are reviewed to determine if they met the definition of other WoUS (i.e., had evidence of an OHWM). Data collected from georeferenced aerial photographs, topographic maps, and soils data are viewed on handheld mobile devices, and used to target areas with potential WoUS. During fieldwork, all accessible areas within the Project Footprint, Conservation and Offsite areas were visually surveyed for hydrophytic vegetation, standing water, scoured areas, etc. Inaccessible areas were viewed from the elevated locales with the aid of binoculars, aerial photographs, and so forth.

[2] USACE CWA Regulations Title 33 CFR Part 328.3(b) Not Waters of the United States – In summary, b(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow, are not WoUS.

Areas that were determined to have an OHWM and/or defined bed/bank and suspected of being WoUS, wetlands or other sensitive riparian/riverine communities were further analyzed for a dominance of hydrophytic vegetation, hydric soils, and hydrology as described below. The evaluation process for USACE-defined wetlands considered vegetation, soils, and hydrological parameters of suspected features. The location of the OHWM was defined based on clear lines visible on banks; shelving; changes in the character of the soil; destruction of terrestrial vegetation; presence of litter and debris; and differences in vegetation species, composition or structure.

Potential USACE-defined wetlands, WoUS and other riverine resources were delineated in the field with a handheld Global Positioning System (GPS) receiver. The surface area of each feature was then calculated within a Geographic Information System (GIS) to determine total jurisdiction area within the Project Footprint, Conservation and Offsite areas.

KMZ (Keyhole Markup Language Zipped) files and GIS/ESRI shapefiles are available, upon request, as aquatic resource boundaries were not permanently flagged or demarked in the Project Footprint, Conservation and Offsite areas at the time of delineation in 2023.

3.2.1 Vegetation

Plants observed were identified to the taxonomic level sufficient to determine their wetland indicator status based on the National List of Plant Species that occurs in the Arid West Region National List of Plant Species that Occur in Wetlands (USACE 2018 [https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html], EL 1987, Reed 1998, Lichvar 2012, and Table 1). Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded per Baldwin et al. (2012) and Lichvar (2012).

Table 1. Summary of Wetland Indicator Status

Category	Probability
Obligate Wetland (OBL)	Plants that occur almost always (estimated probability > 99%) in wetlands under natural conditions
Facultative Wetland (FACW)	Plants that occur usually (estimated probability >67% to 99%) in wetlands, but also occur (estimated probability 1% to 33%) in non-wetlands
Facultative (FAC)	Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands
Facultative Upland (FACU)	Plants that occur sometimes (estimated probability 1% to <33%) in wetlands, but occur more often (estimated probability >67% to 99%) in non-wetlands
Obligate Upland (UPL)	Plants that occur rarely (estimated probability < 1%) in wetlands, but occur almost always (estimated probability >99%) in non-wetlands under natural conditions
No Indicator (NI)	Wetland indicator status not assigned. Species is assumed to be upland.

Within this Report, the hydrophytic vegetation indicators criterion was met if the USACE's Dominance Test and/or Prevalence Index –using absolute, rather than relative vegetation cover, were satisfied. Vegetation communities were evaluated for each WoUS, wetland and other sensitive riparian / riverine location or water conveyance feature detected within the Project Footprint, Conservation and Offsite areas. Evaluations of vegetation communities were primarily limited to regions present within the OHWM

and/or top of bed/bank, in addition to the outer limits of associated riparian / riverine vegetation. Vegetation communities were identified according to the percent cover of dominant plant species observed within each community. Vegetation classifications were based on a visual estimation of characteristic dominant flora within a type following Holland (1986) and/or Sawyer et al. (2009).

3.2.2 Soils

Soil texture, matrix, redoximorphic features (i.e., mottles), and any presence of subsoil layers impervious to water infiltration were documented from hand-excavated soil pits to the greatest extent practical. Soils were examined for positive hydric soil indicators such as low chroma, mottles (e.g., iron or manganese concretions), histic epipedons, organic layers, gleization, sulfidic odor or other primary hydric soil indicators listed on an Arid West Wetland Determination Data Form. Soil color and characteristics were determined from moist soil peds using Munsell Soil Color Book (Munsell Color 2000). If warranted, soils are evaluated in the field to a depth of approximately 8-20 inches, where possible. GPS position data are collected at each soil pit and detailed within Project figures – when this type of sampling is appropriate. If warranted, upland and wetland soil pits are evaluated as well to delineate the wetland/upland boundary – when necessary. Hydric soil assessments were predominately based upon the guidance provided in the Arid West Regional Supplement (USACE 2008b). General soil information for Project Components was obtained from the Soil Survey for Riverside County (USDA-NRCS 2023a).

3.2.3 Hydrology & Impounded Features

Hydrology was evaluated in areas suspected of seasonal inundation and/or saturation to the surface during the growing season. Recent precipitation data was analyzed to evaluate the frequency and amount of rainfall events within the Project Footprint, Conservation and Offsite areas, and on surrounding lands. Hydrological information was also determined for features by signatures on aerial photographs over time, as well as field analysis of the presence/absence of primary - or secondary hydrological indicators (i.e., surface water, saturation, sediment or drift deposits, watermarks, soil cracks, oxidized root channels, and/or biotic or salt crusts). Additionally, impounded features – if observed, were assessed to determine if they possessed natural characteristics with indicators of all three (3) wetland parameters: 1) dominance of hydrophytic vegetation (or Facultative Neutral), 2) possess hydric soils in the upper part, and 3) wetland hydrology.

4.0 RESULTS

The topography within the Project Components generally slopes downward from the northwest to southeast - from 1,660 feet to 1,420 feet, above mean sea level (amsl).

4.1 Soils

The Web Soil Survey is an online Geographic Information System (GIS) that provides the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) with online soil data (NRCS 2023). This website was used to assess soil characteristics and soil types within the Project Footprint, Conservation and Offsite areas. This database was also used to determine if the Project Component's mapped soils were likely to include any hydrologically influenced areas.

According to the USDA NRCS, the Project Components consists of the following soil complexes (Appendix A, Figure 4).

Project Footprint

- HcC, Haire clay loam, 0 to 9 percent slopes;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- MmD2, Miramar coarse sandy loam, moderately steep, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, Eroded;
- Wn, Wyo silt loam;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded; and
- RaC2, Rincon clay loam, 2 to 9 percent slopes, eroded.

Conservation Area

- Wn, Wyo silt loam;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- Wg, Wyo loam, deep over gravel; and
- RsC, Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14.

Offsite Area

- EnA, Exeter sandy loam, 0 to 2 percent slopes;
- EnC2, Elder shaly loam, 2 to 9 percent slopes, eroded;
- ReC2, Ramona very fine sandy loam, 0 to 8 percent slopes, eroded;
- HcC, Haire clay loam, 0 to 9 percent slopes;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, Eroded;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded; and
- Wn, Wyo silt loam.

- Wg,Wyo loam, deep over gravel
- Wh,Wyo gravelly loam, moderately deep over gravel
- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes

Of the above referenced soil types, none are formally classified as hydric. Please note that the NRCS Soil mapped units do not provide precise information, about the locations of soil types - or their inclusions. NRCS Soil Survey data users are cautioned that due to the limitations of mapping – primarily through aerial photo interpretation, a percentage of unique soil types may have gone unidentified, or misidentified.

4.2 Hydrology

The Project Components are located within the San Jacinto Regional Watershed (Hydrologic Unit Code 18070202) (Appendix A, Figure 5). It is notable, that both EPA WATERS GeoViewer results, and USGS 7.5 Quadrangle Map evidence no stream channels within the Project Footprint (Appendix A, Figure 1, 8 and 9).

It is also important to notice that although the NWI was reviewed, it was not considered indicative of the resources observed within the Project Components for the following reasons:

1) NWI users are cautioned that the features displayed therein show wetland type and extent using a biological definition. There is no attempt to define the limits of proprietary jurisdiction of any Federal, State, or local government - or to establish the geographical scope of the regulatory programs of government agencies. Therefore, the data should not be relied upon for jurisdictional identification.
2) NWI maps have been prepared from limited analysis of high-altitude imagery in conjunction with collateral data sources focusing on wetlands. When imagery is conflicting, the Environmental Systems Research Institute (ESRI) Base imagery is used.
3) The features within the Project Components are relatively small, and do not have obvious vegetation species variability, making they are indistinguishable from other signatures (e.g., off highway vehicle tracks), at high altitude.

4.3 Jurisdictional Determination

The evidence obtained implies that the Project include a notable amount of WoUS, and USACE defined wetlands (Appendix A - Figure 3). As features either bear signs of an OHWM, or satisfy the USACE criteria for hydrophytic vegetation, hydric soils, and wetland hydrology to be identified as a potential WoUS. The features observed are not isolated. As flows from them, via the San Jacinto River, eventually connect with Canyon Lake, then to Lake Elsinore and the Santa Ana River, before reaching the Pacific Ocean. These physical connections reinforce their potential status as WoUS. Table 2 below provide a summary of WoUS by Project Component.

But please note that within the Project Footprint, Offsite and Conservation areas there are signatures that meet the general definition and description for topographic lows, rills, gullies, swales, features excavated wholly in - and that drain only upland areas, and erosional signatures like those identified in Title 33 CFR a(8); as swales and erosional features (e.g., gullies and small washes) characterized by low volume, infrequent, or short duration flow. A commonly accepted definition of gullies is that they are erosion features larger than rills – which can be ploughed out - or easily crossed, but smaller than streams, creeks, arroyos, or river channels (Wells 2004). This is a description that actually harkens back to the National Soil Conservation Service of the 1930s. The aforementioned signatures do not meet the definition of water conveyances that are tributary to (a)1 through (a)(5) Waters, nor do they satisfy the "relatively permanent standard." Furthermore, the signatures do not have past, present, or potential to contribute of interstate or foreign commerce, nor do they have physical capabilities for use by commerce. As a result, none of these signatures were determined to be potential WoUS.

Table 2 provide a summary of USACE CWA Section 404 jurisdiction by Project Component.

Table 2. Summary of USACE Clean Water Act Section 404 Jurisdiction

Unique Identifier	USACE Non-Wetland Waters (Acres)	USACE Defined Wetland (Acres)	Total USACE Jurisdiction (Acres)	Total Length (Linear Feet)
Waters of the U.S. within the Project Footprint				
Feature 1	0	0	0	0
Feature 2	0	0.03	0.03	22
Waters of the U.S. within the Conservation Area				
Feature 1	0	20.59	20.59	2,040
Feature 2	0	1.42	1.42	1,134
Waters of the U.S. within the Offsite Areas				
Feature 1	0	0	0	0
Feature 2	0	0.26	0.26	253
TOTAL	**0**	**22.30**	**22.30**	3,449

Feature 1

Feature 1 is an anthropogenically disturbed Alkali Playa (Appendix A, Figure 3). For decades, this area has been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Past disking for weed abatement, fire suppression, sheep grazing and farming activities have resulted in the removal of native vegetation and alterations to floodplain topography in this location. Feature 1 is within the historical floodplain of the San Jacinto River and exhibits signs of temporary inundation during the wet season as evidenced by the presence of surface soil cracks during the dry season and impenetrable clay soils. Feature 1 contains high concentrations of alkali salts and is currently mapped by the NCSS as containing (Wn) - Willows silty clay, deep, strongly saline alkali soils. While decades of agriculture practices and disturbances throughout this area have modified conditions, site topography continues to convey storm flows in a general west to east direction, depending on rainfall amounts. Since this disturbed playa is both adjacent to, and hydrologically connected to, the San Jacinto River, it is subject to Corps jurisdiction under Section 404 of the CWA. The disturbed playa contains a mosaic of patchy Facultative (FAC) or wetter alkali-adapted species, including silverscale saltbush (*Atriplex argentea*), alkali

weed (*Cressa truxillensis*), bush seepweed (*Suaeda nigra*), heliotrope (*Heliotropium curassavicum*), alkali mallow (*Malvella leprosa*), smooth tarplant (*Centromadia pungens ssp. laevis*), and San Jacinto Valley crownscale (*Atriplex coronata var. notatior*). Additional non-native species occur in this area as well including foxtail barley (*Hordeum murinum*), summer mustard (*Hirschfeldia incana*), Jimsonweed (*Datura wrightii*), prickly lettuce (*Lactuca serriola*), and doveweed (*Croton setiger*). Due to the presence of wetland hydrology and alkaline soils, this location meets the criteria for hydric vegetation. Based on the presence of a restrictive layer preventing penetration of the upper 12 inches, a soil profile was not obtainable. However, the area is mapped as containing silty clay and silty clay strongly saline-alkali soils and meets the indicators for wetland hydrology; therefore, hydric soils are assumed present.

Feature 2

Feature 2 is the San Jacinto River (Appendix A, Figure 3). The San Jacinto River is a water conveyance feature within the Conservation and Offsite areas, along the Project's eastern boundary. The San Jacinto River flows from northeast to southwest. The drainage exhibits an OHWM approximately 75 feet wide, as evidenced by the presence of water marks, sediment deposits, and debris.

Vegetation within and along the banks of the San Jacinto River includes the following riparian species; black willow (*Salix gooddingii*), tamarisk (*Tamarix* ssp.), and mulefat (*Baccharis salicifolia*), with herbaceous species including common spikerush (*Eleocharis palustris*) and toothed dock (*Rumex dentatus*). Non-native species such as summer mustard, foxtail barley, and annual brome grasses are the dominant species. Based on the presence of a restrictive layer preventing penetration of the upper 12 inches, a soil profile was not obtainable. However, the area is mapped as containing Riverwash and saline-alkali silty clay soils, and satisfies the indicators for wetland hydrology. In addition, areas within and adjacent to the channel support a prevalence of riparian and wetland vegetation; therefore, hydric soils are presumed to be present.

The services performed and documented herein have been conducted in a manner consistent with the level of care, and skill ordinarily exercised by other professional consultants under similar circumstances. No other representations are either expressed or implied, and no warranty - or guarantee is included or intended in this report, despite due professional care.

5.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. The Jepson Manual: Vascular Plants of California. University of California Press. 1,568 pp.

Federal Emergency Management Agency (FEMA). 2023. Flood data 100-Year flood zone map.

Glenn Lukos Associates, Inc. (GLA), 2022a. Biological Technical Report for Stoneridge Commerce Center. February 24, 2022;

Glenn Lukos Associates, Inc. (GLA), 2022b. Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. February 4, 2022;

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Wildlife.

Hunsaker & Associates. 2021. Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021.

Jepson Flora Project (eds.) 2021, *Jepson eFlora*, http://ucjeps.berkeley.edu/eflora/. accessed 15 February 2021.

Lichvar, R. et al. 2012. National Wetland Plant List indicator rating definitions, ERDC Knowledge Core REDIRECT. https://erdc-library.erdc.dren.mil/jspui/handle/11681/2616

Munsell Color (2000) Munsell Soil Color Charts. Baltimore Maryland: Munsell Color.

National Wetlands Inventory (NWI). 2023. U.S. Fish and Wildlife Service Wetlands Mapper. Available online at: https://www.fws.gov/wetlands/data/mapper.html.

Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey. Map Unit Descriptions. Available at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

2023 California National Climate Data Center (NCDC, 2023).

Reed, P. B., Jr. 1988. National List of Plant Species that Occur in Wetlands. Washington, DC: U.S. Fish and Wildlife Service.

Sawyer, J.O, T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation. Second Edition. California Native Plant Society Press. Sacramento, California.

Wells, N.A., 2004. Gully. In: A. Goudie (Editor), Encyclopedia of Geomorphology, Volumes 1 and 2. 1086 Routledge, London, pp. 503-506.

Western Regional Climate Center (WRCC). 2023. Period of Record Monthly Climate Summary for Riverside County, California. Available online at: https://wrcc.dri.edu.

U.S. Army Corps of Engineers (USACE). 2007. Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook). May 30.

U.S Army Corps of Engineers. 2008. Regulatory Guidance Letter No. 08 02.

U.S. Army Corps of Engineers (USACE). 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual). August 2008.

U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September 2008.

U.S. Army Corps of Engineers (USACE). 2016. Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (Minimum Standards). January 2016.

U.S. Army Corps of Engineers (USACE). 2018. National Wetland Plant List, version 3.4. U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover, NH. Available online at: http://wetland-plants.usace.army.mil/; accessed 15 February 2021.

U.S. Environmental Protection Agency (EPA). 2023. Antecedent Precipitation Tool (APT). https://www.epa.gov/wotus/antecedent-precipitation-tool-apt.

U.S. Environmental Protection Agency (EPA). 2022. Enviromapper for Water. <URL: http://map24.epa.gov/EMR/ >

U.S. Environmental Protection Agency. WATERS GeoViewer. Accessed 2023. https://www.epa.gov/waterdata/waters-geoviewer

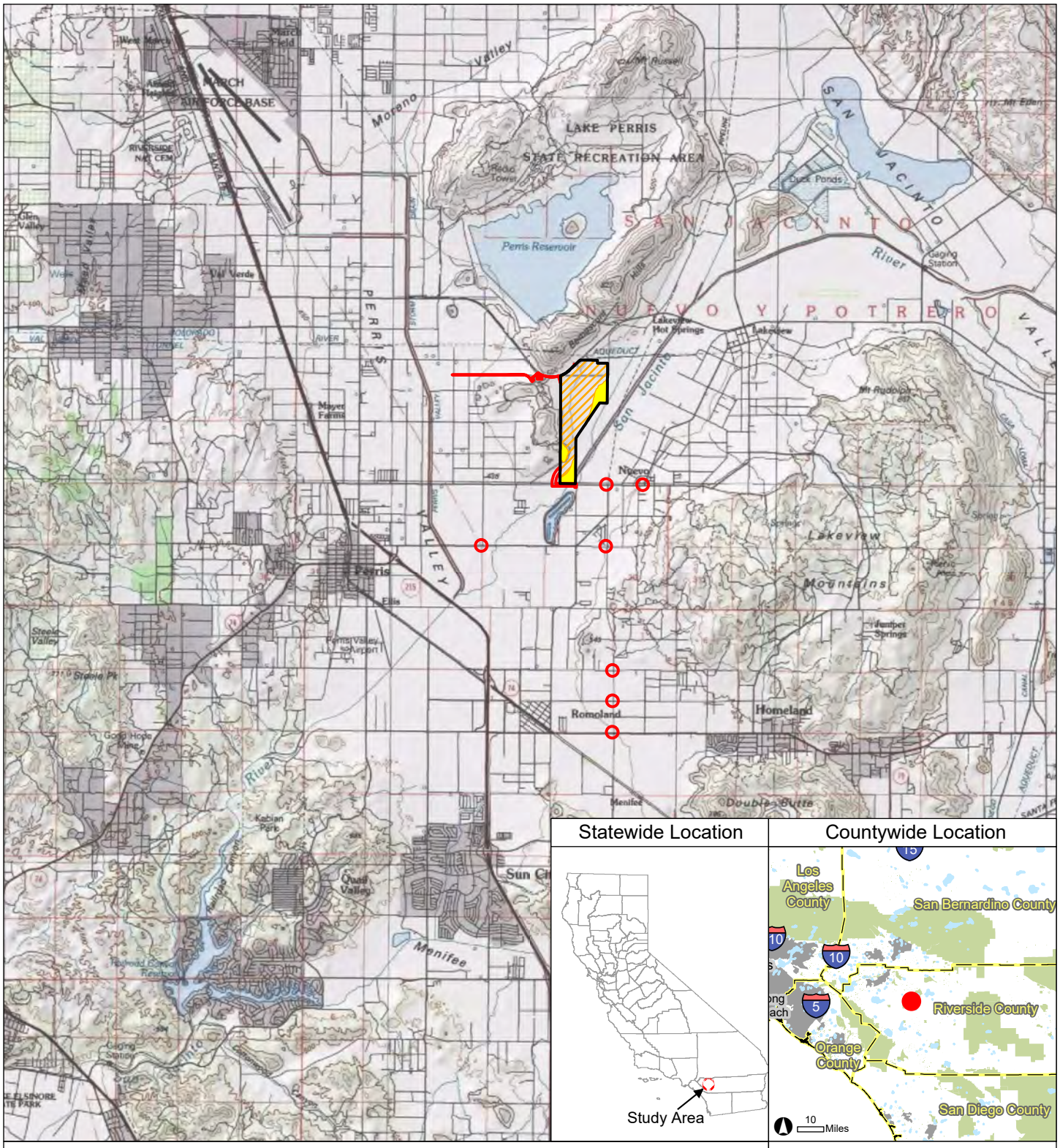
U.S. Department of Agriculture Natural Resource Conservation Service. 2003. Field Indicators of Hydric Soils in the United States, Version 5.01. G.W. Hurt, P.M. Whited, and R.F. Pringle (eds.) USDA NRCS in cooperation with the National Technical Committee for Hydric Soils

U.S. Department of Agriculture Natural Resource Conservation Service. 2023. Field Indicators of Hydric Soils in the United States, Version 7.0. G.W. Hurt and L.M. Vasilas (eds.). USDA-NRCS in cooperation with the National Technical Committee for Hydric Soils. 47p. <URL: ftp://ftp-fc.sc.egov.usda.gov/NSSC/Hydric_Soils/FieldIndicators_v6_0.pdf >

U.S. Department of the Interior, United States Geographical Survey. (1987) Publications of the United States Geological Survey, 1987, DOI USGS. https://pubs.usgs.gov/unnumbered/70043721/report.pdf

USDA-NRCS 2023a, 2023. Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO)

Appendix A
Figures



Project Site
Offsite
Project Footprint
Conservation Area

Interstate or State Highway (inset)
County Boundary (inset)
Urban Area (inset)
Park or National Forest (inset)
Water Body (inset)

0 6,000 12,000 Feet
1 inch = 12,000 feet

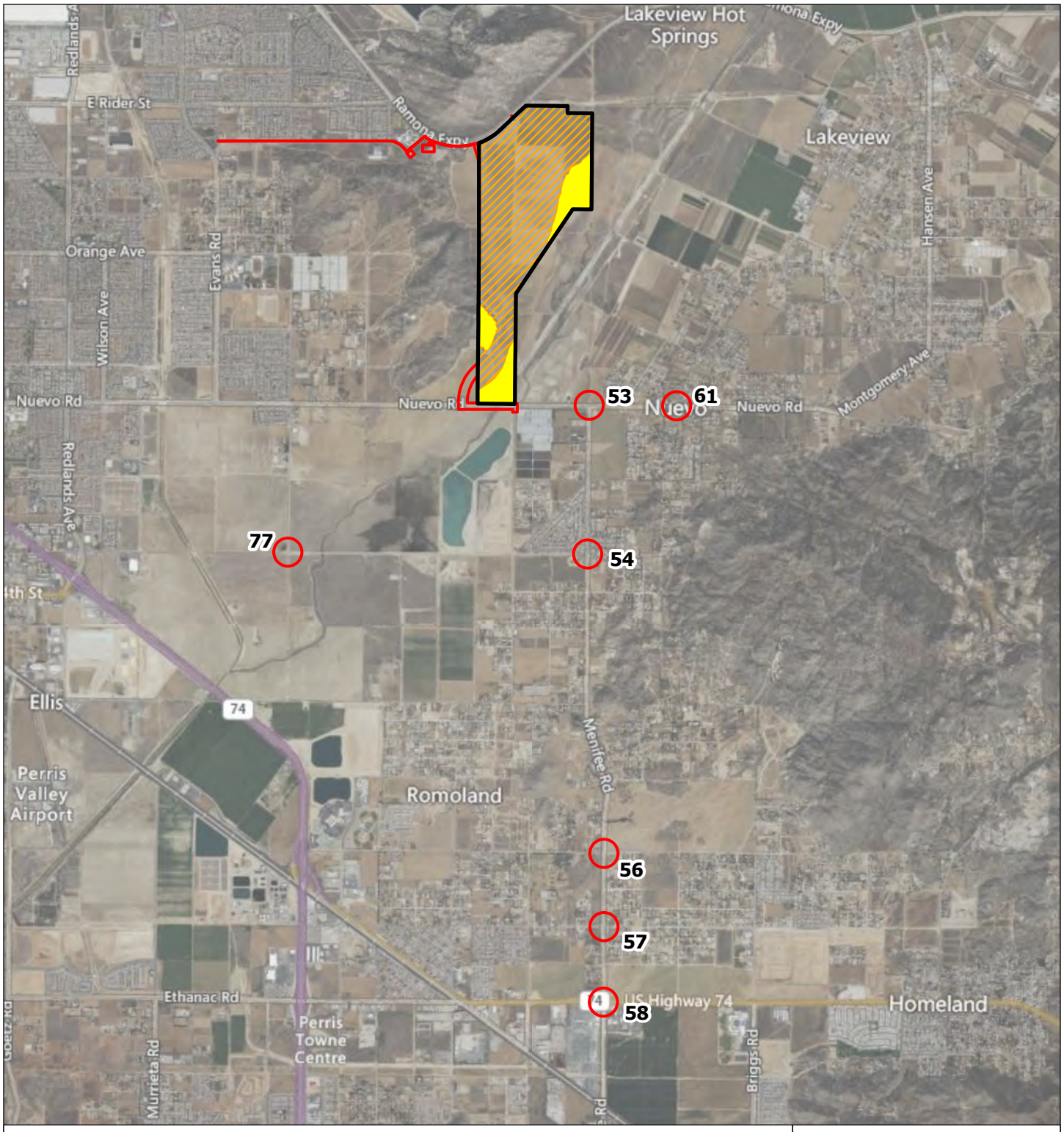
Data Sources:
- Bureau of Land Management Cadastral GIS 2015
- USGS 7.5-minute quadrangle map
- ESRI US Topo Maps accessed Jun 2023

Map Prepared: 6-27-23

Prepared by:
NOREAS
Environmental Engineering and Science

The Study Area is located in Riverside County on the Perris and Romoland USGS 7.5-minute quadrangle maps;
San Bernardino Meridian, Township 4S, Range 3W, in Sections 00, 25, 26, 28, 33, 34, 35, 36;
Township 5S, Range 3W, in Sections 01, 02, 11, 12, 13, 14
Center coordinates (WGS 1984): 117.178°W 33.78°N

Figure 1. Regional Location



Project Site (582.64 ac)
Offsite (153.42 ac)
Conservation Area (97.11 ac)
Project Footprint (485.53 ac)

0 2,500 5,000 Feet

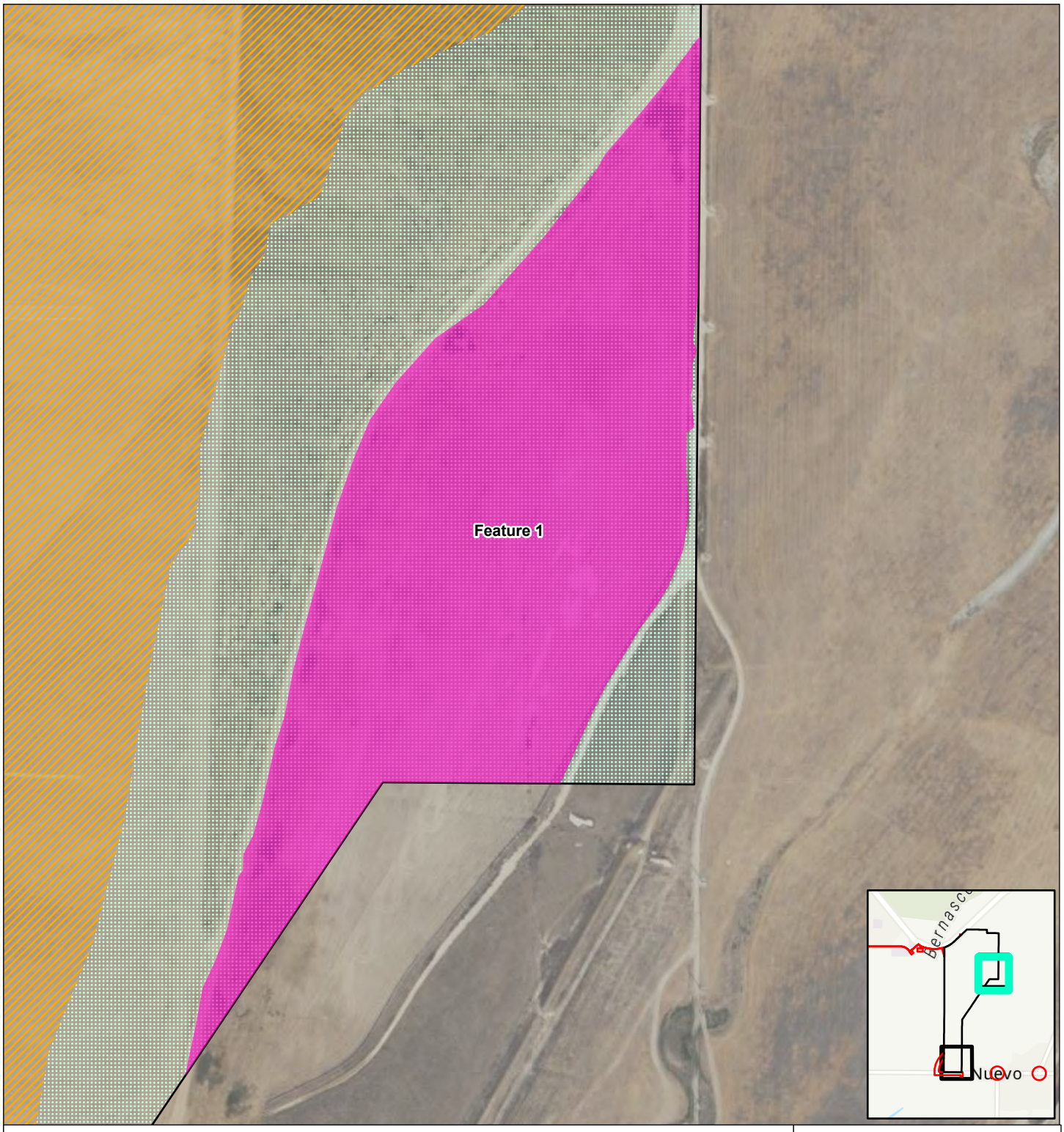
1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 2. Site Vicinity



Project Site
Conservation Area
Project Footprint

Waters of the U.S.
USACE Defined Wetlands

0 150 300 Feet

1 inch = 300 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 3a. Waters of the U.S.

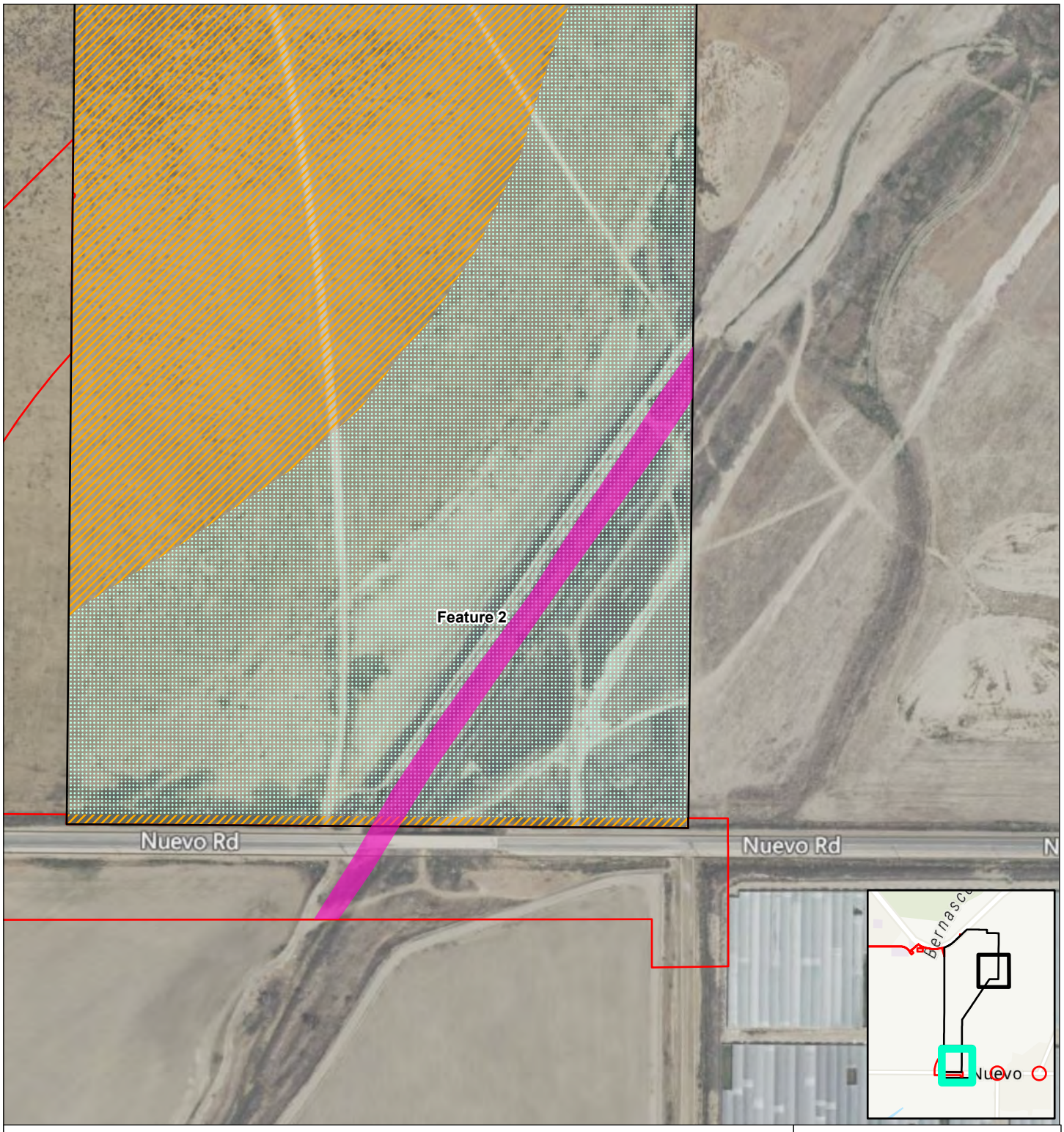
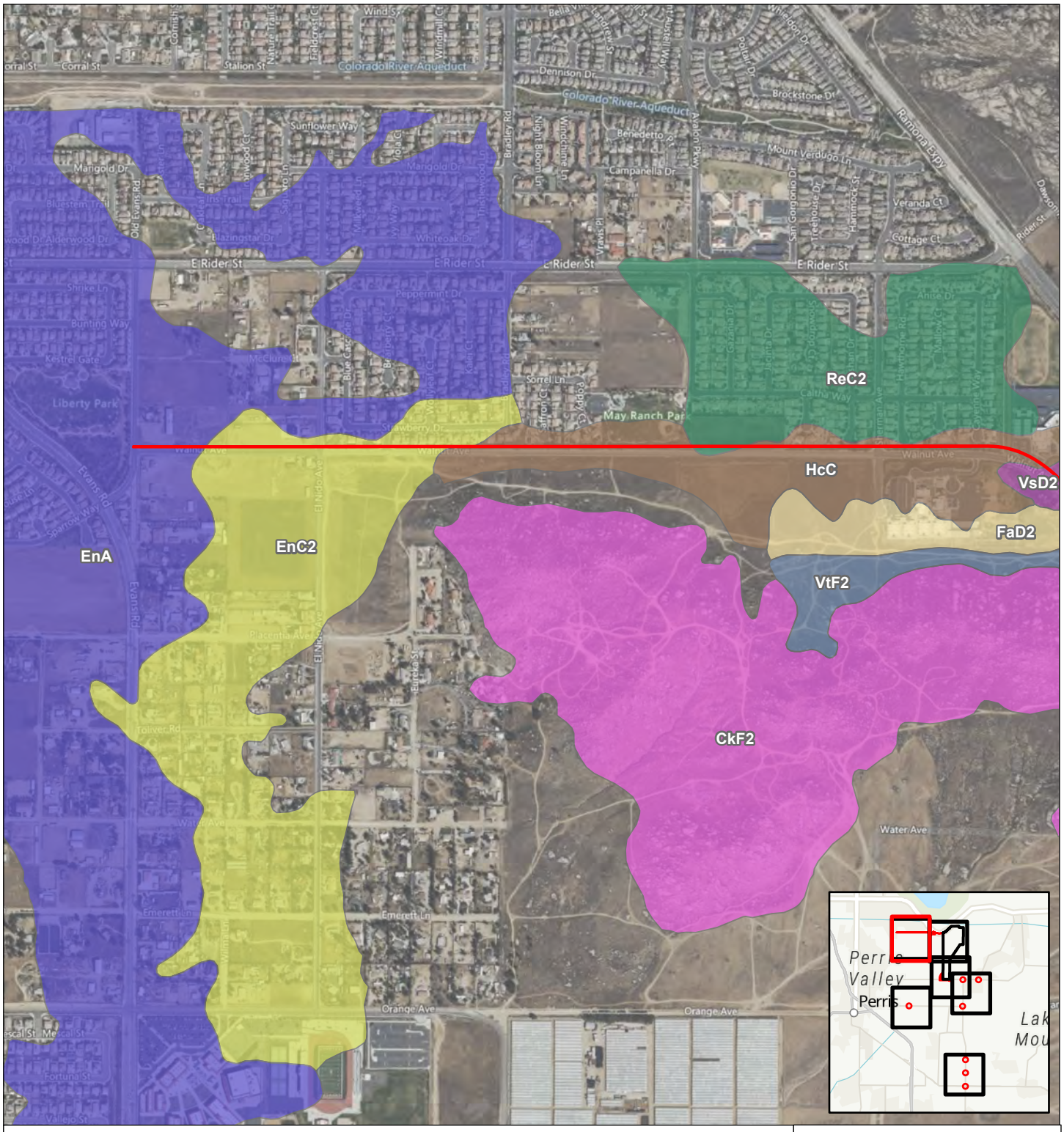


Figure 3b. Waters of the U.S.



Offsite

SSURGO Soils

- ReC2,Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- VsD2,Vista coarse sandy loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2,Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes

0 500 1,000 Feet

1 inch = 1,000 feet

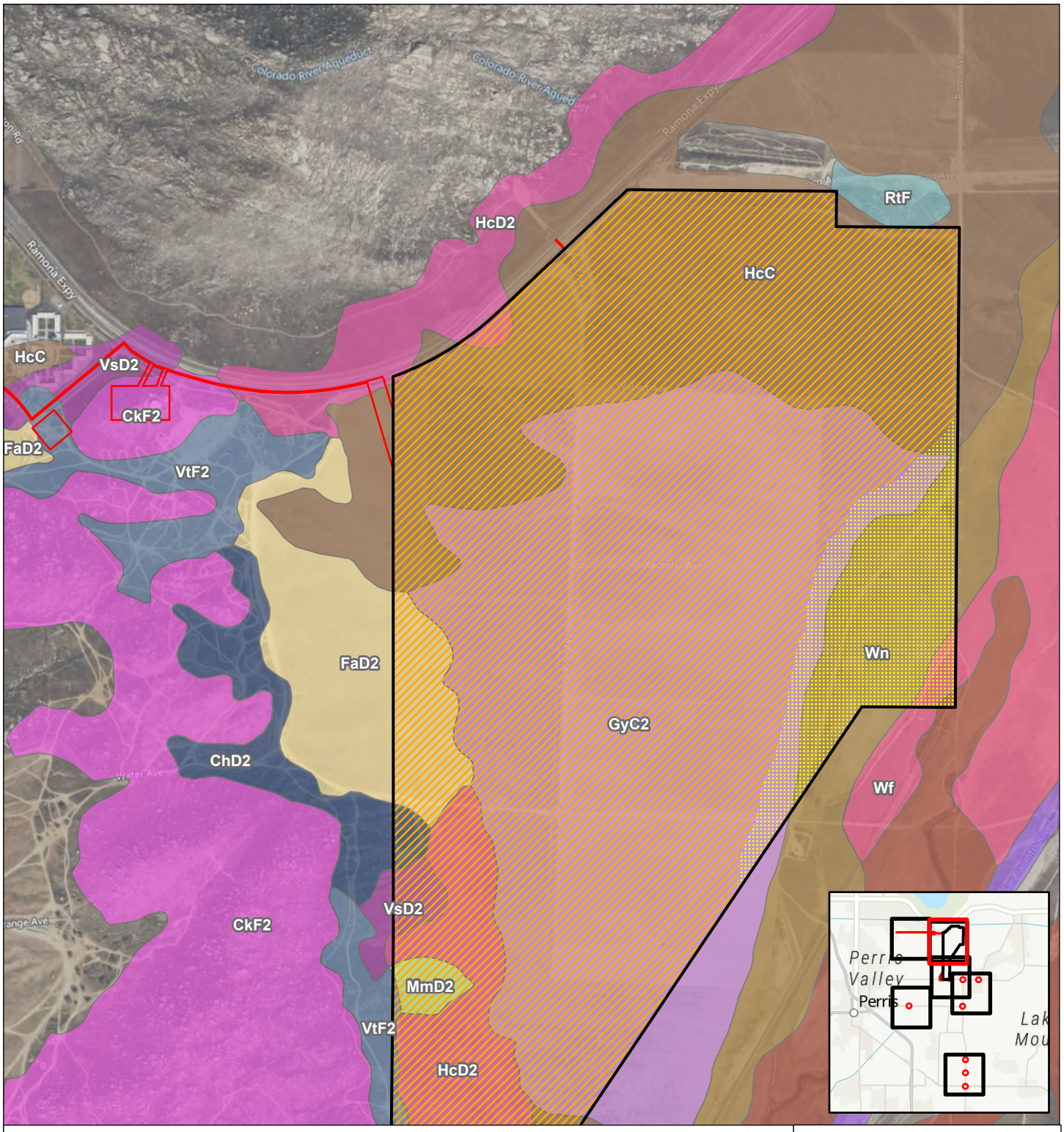
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4a. Soils Map



Project Site
Conservation Area
Project Footprint
Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- ChD2,Cohasset stony loam, moderately deep, 10 to 30 percent slopes, eroded
- RtF,Rockland
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- VsD2,Vista coarse sandy loam, 9 to 15 percent slopes, eroded
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- MmD2,Miramar coarse sandy loam, moderately steep, eroded
- HcD2,Haire clay loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2,Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

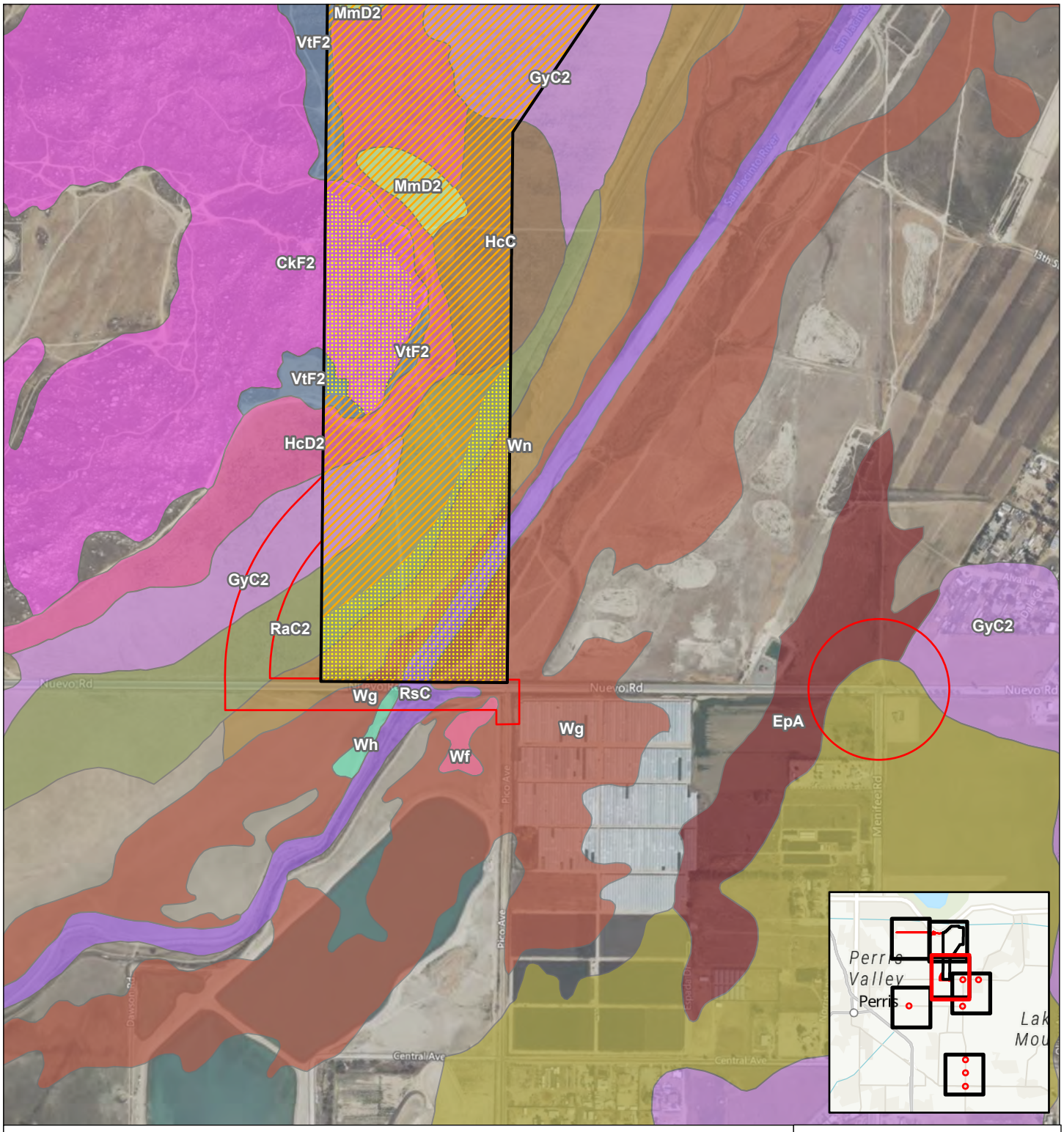
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4b. Soils Map



Project Site
Conservation Area
Project Footprint
Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- Wh,Wyo gravelly loam, moderately deep over gravel
- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- MmD2,Miramar coarse sandy loam, moderately steep, eroded
- HcD2,Haire clay loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

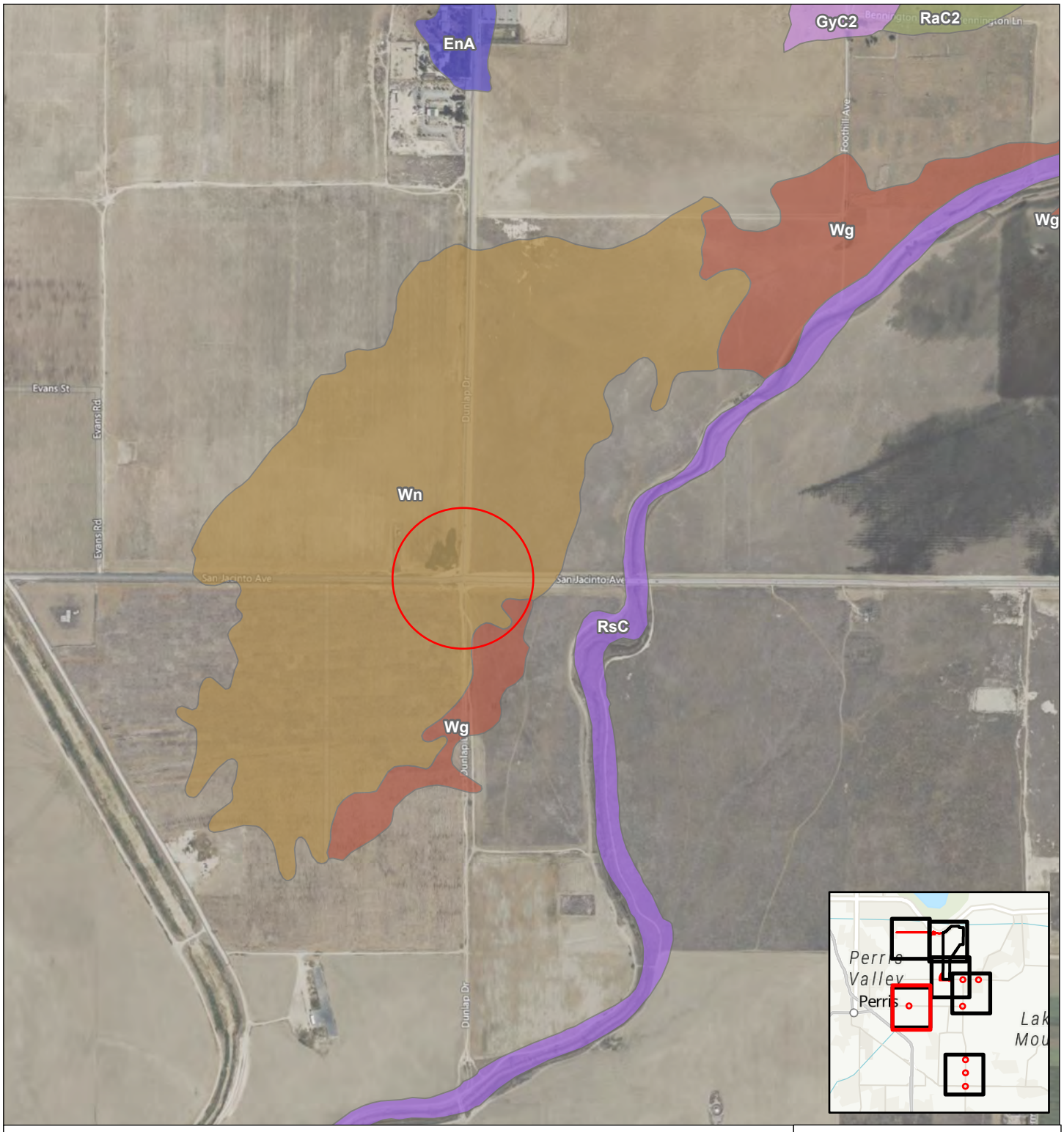
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4c. Soils Map



Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

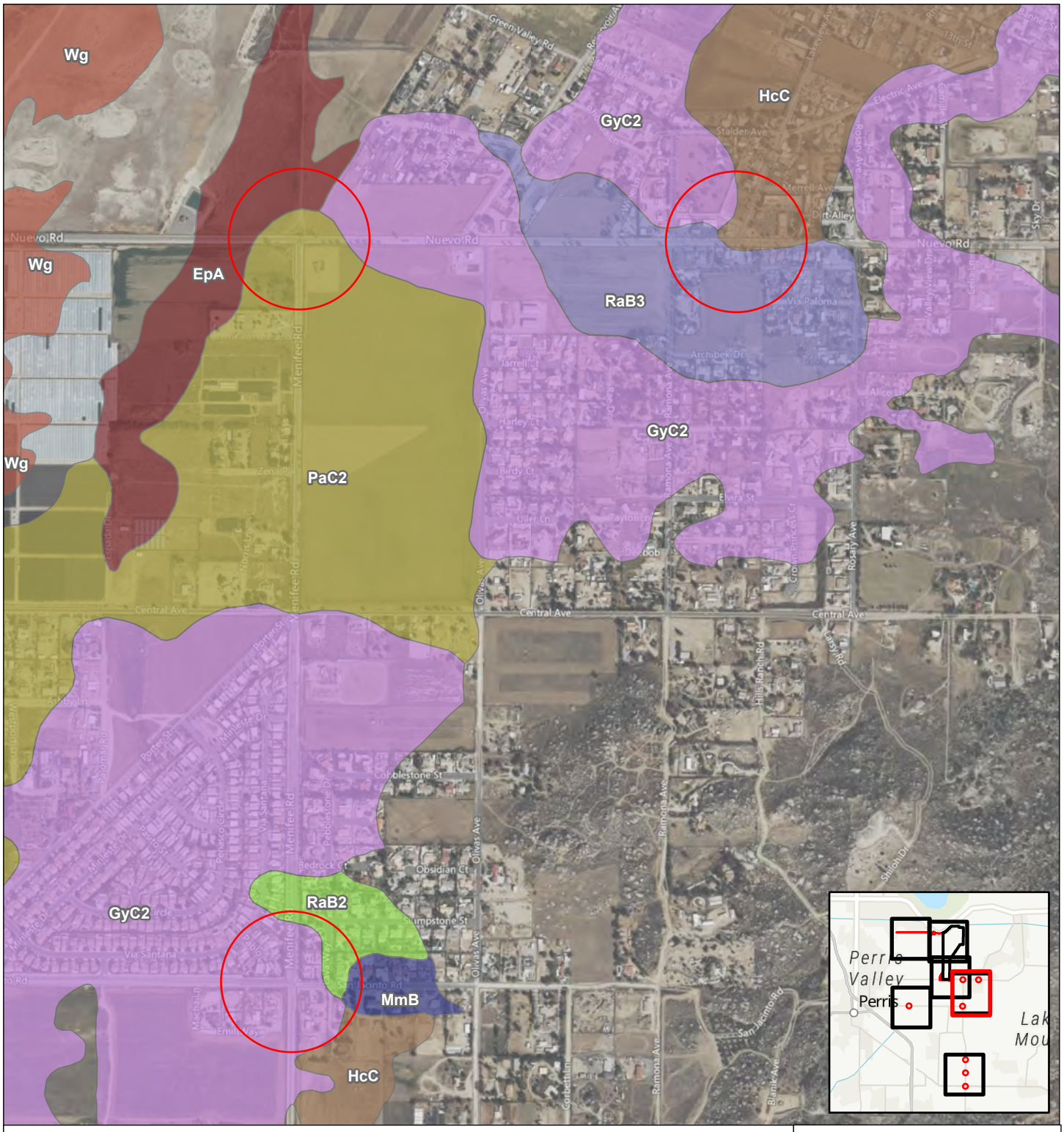
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4d. Soils Map



Offsite

SSURGO Soils

- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- Wg,Wyo loam, deep over gravel
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

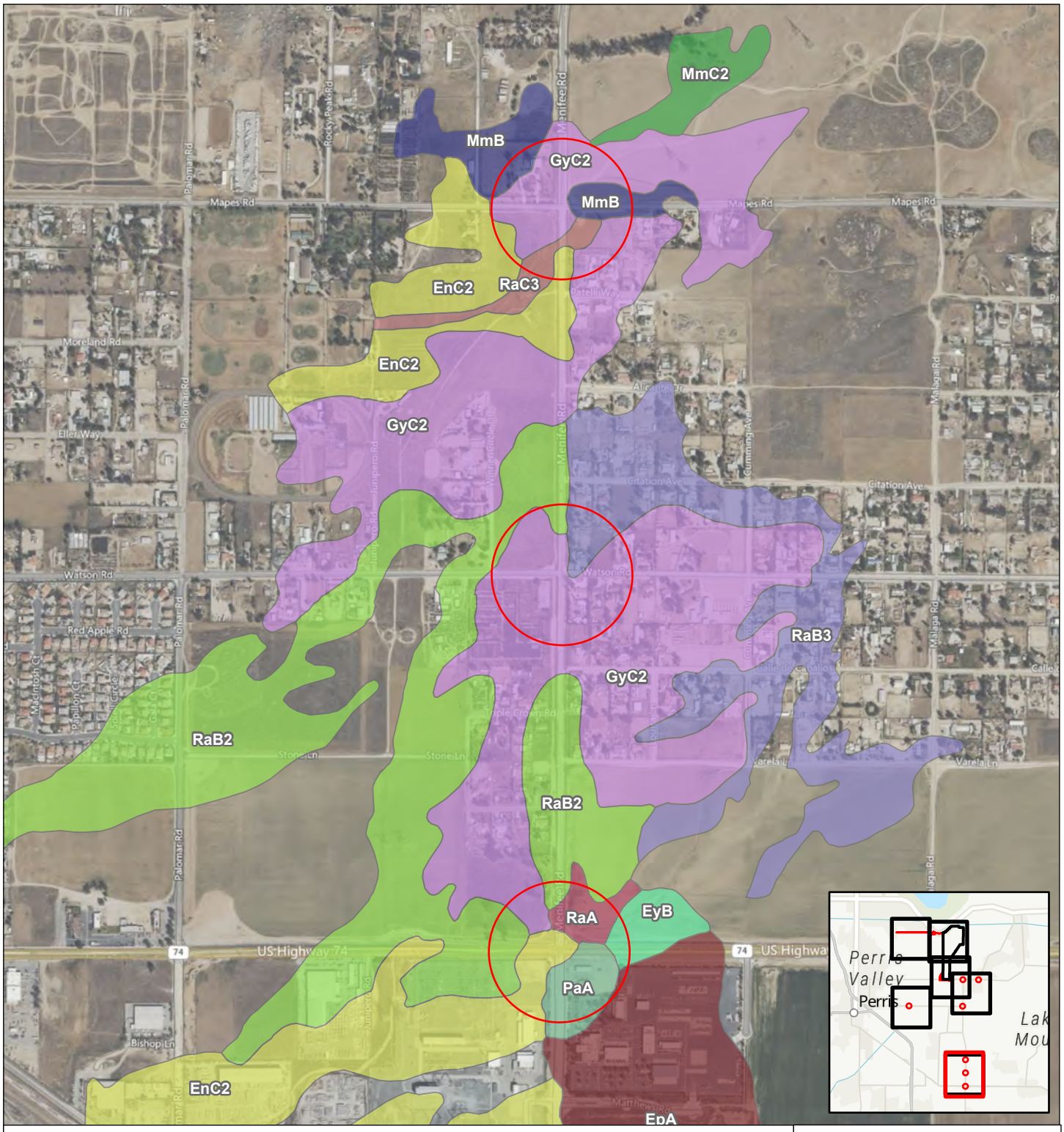
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4e. Soils Map



Offsite

SSURGO Soils

- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes
- MmC2,Miramar coarse sandy loam, sloping, eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4f. Soils Map

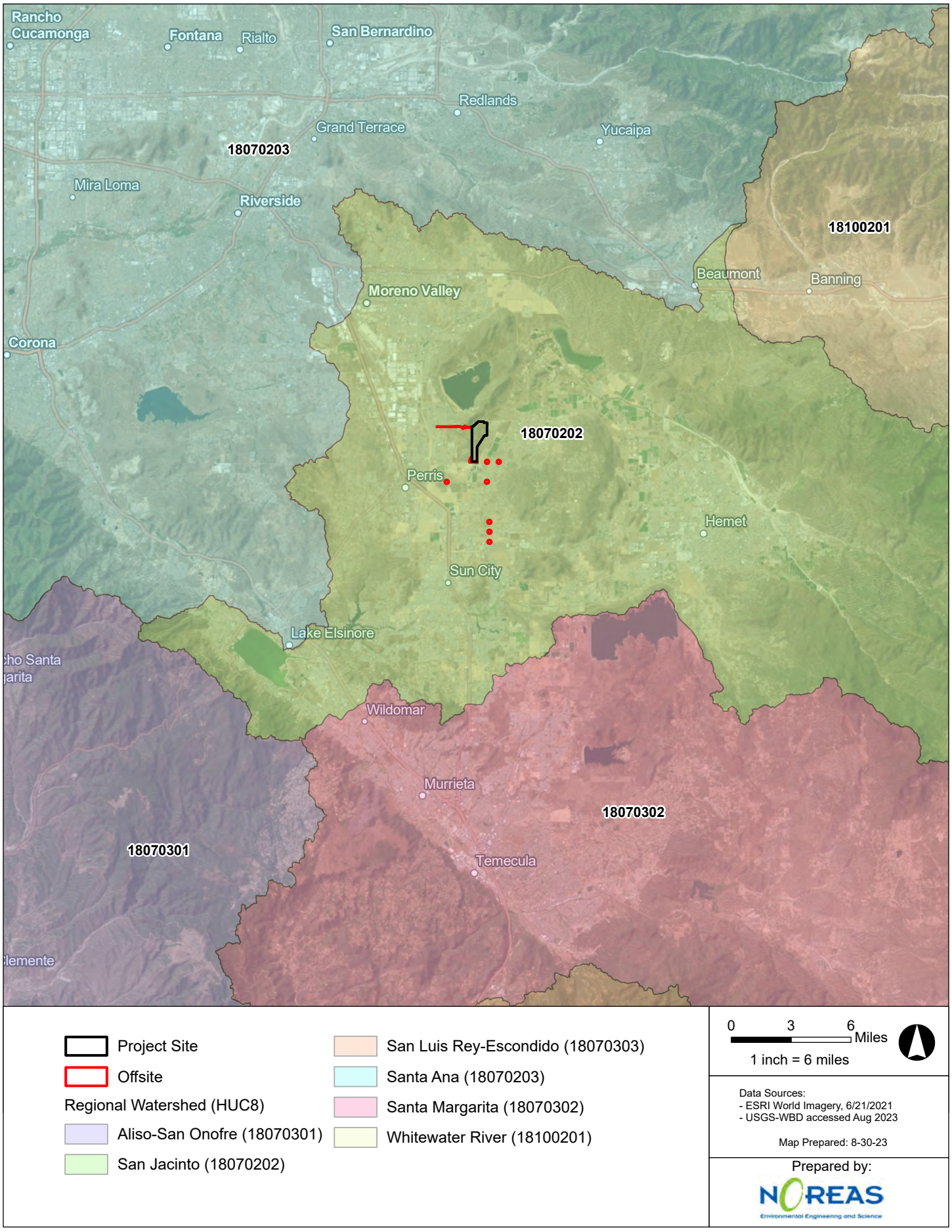
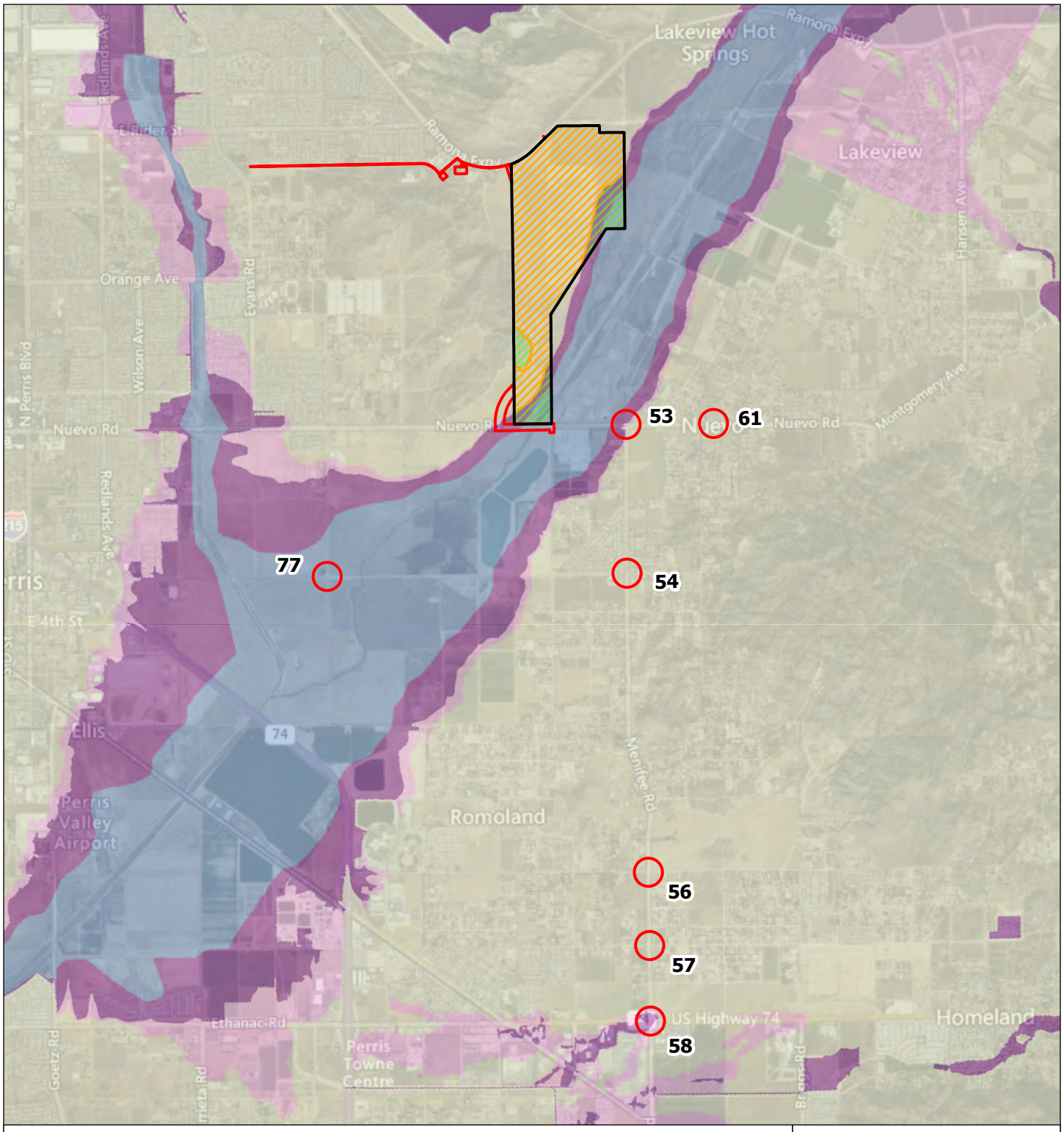


Figure 5. Regional Watershed Map



Project Site
Offsite
Project Footprint
Conservation Area

FEMA Flood Hazard Zone
1% Annual Chance Flood Hazard
Regulatory Floodway
Area of Minimal Flood Hazard
0.2% Annual Chance Flood Hazard

0 2,500 5,000 Feet

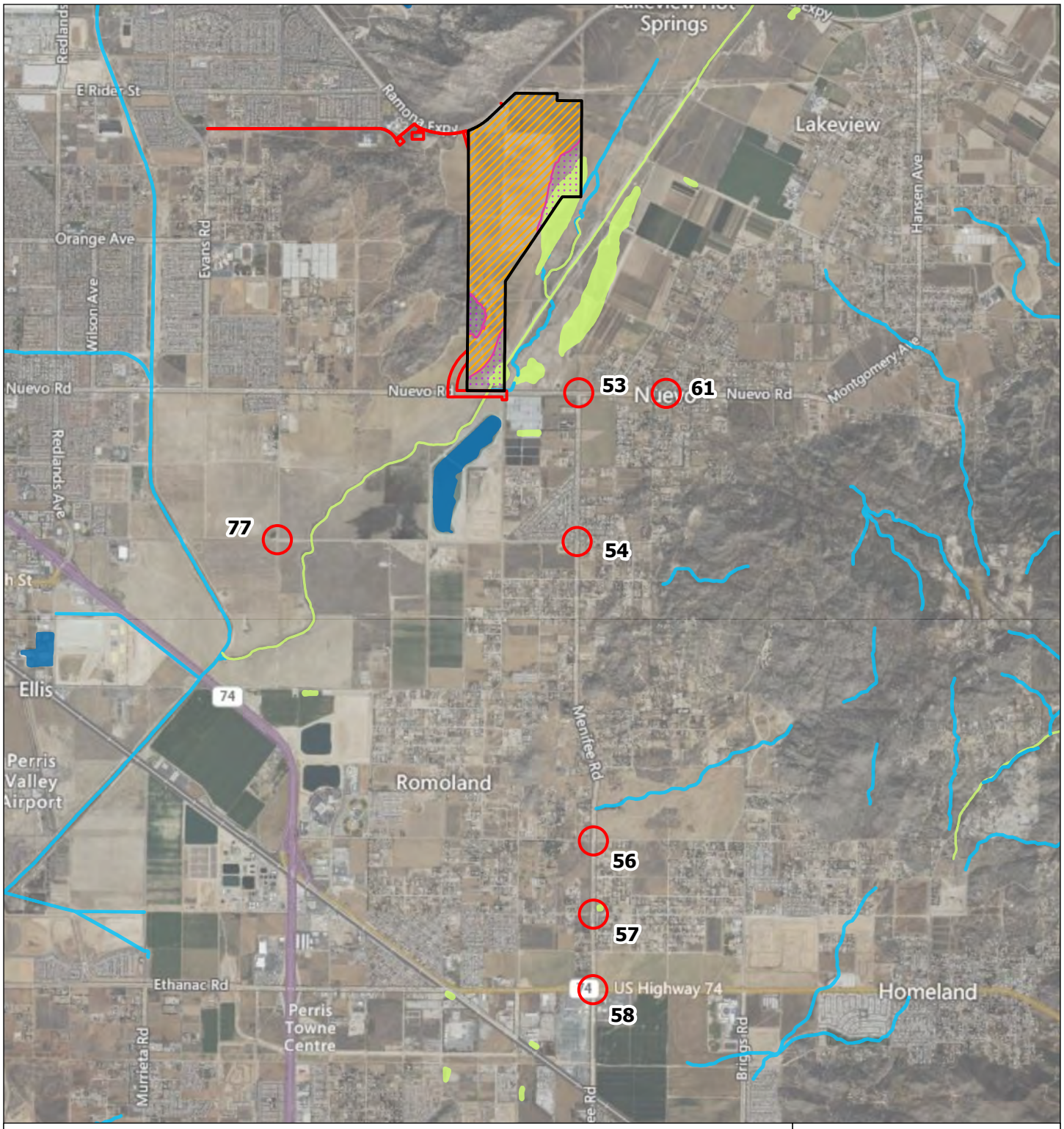
1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI Reference layer accessed Aug 2023
- FEMA National Flood Hazard Layer accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 6. FEMA 100-Year Flood Zone



Project Site
Offsite
Project Footprint
Conservation Area

USA Wetlands
Marsh, Swamp, Bog, Prairie
River
Lake, Reservoir

0 2,500 5,000 Feet
1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023
- US Fish and Wildlife Service National Wetland Inventory Publication Date Oct 2022

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 7. National Wetland Inventory

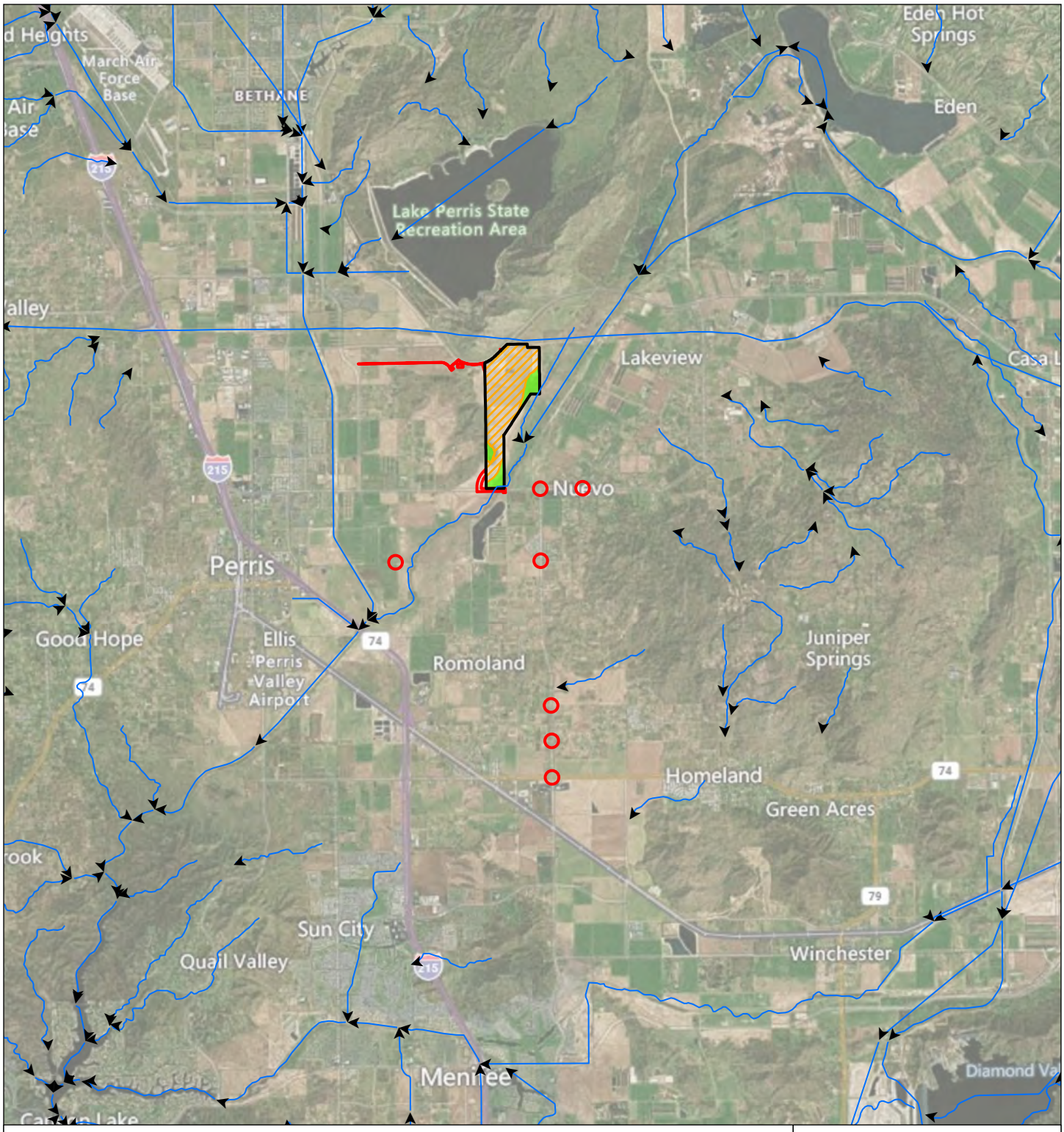


Figure 8. Surface Water Map (Regional Area)

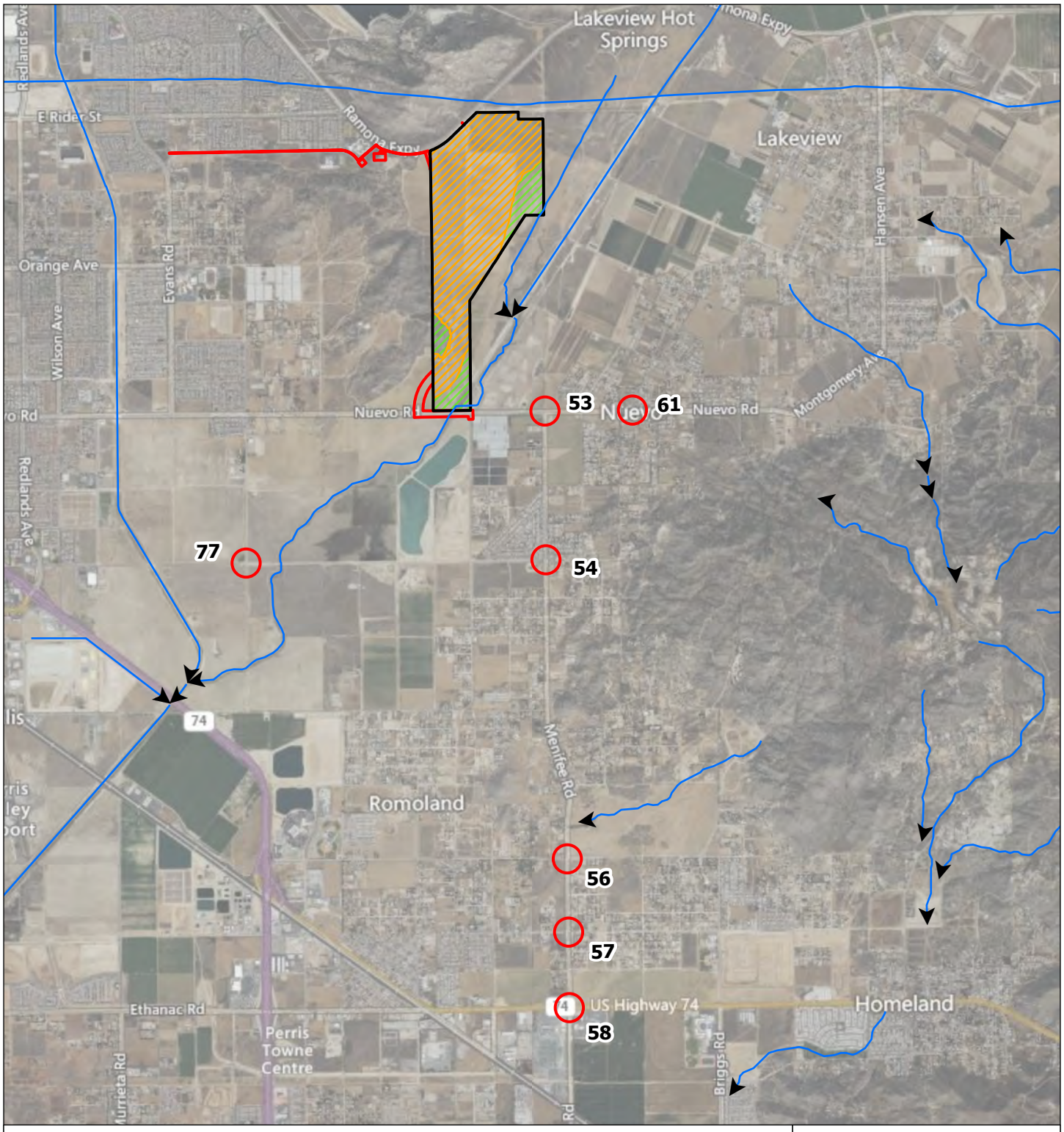


Figure 9. Surface Water Map (Local Area)

Appendix B
Photographic Log

	**Photograph 1.** Representative photo of Feature 1 - Facing Southwest.
	**Photograph 2.** Representative photo of Feature 1 - Facing Southeast.

	**Photograph 3.** Representative photo of Feature 2 - South of Nuevo Road, Facing South.
	**Photograph 4.** Representative photo of Feature 2 - North of Nuevo Road, Facing South.

Appendix E2 Waters of the State Assessment

THE STONERIDGE COMMERCE CENTER PROJECT

Waster of the State Assessment

August 2023

U.S. Geological Survey 7.5-Minute
Perris and Romoland Quadrangles
San Bernadino Meridian, Riverside County, California

Prepared By

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Irvine, CA 92618
(949) 467-9116

Certification

The undersigned certify - under penalty of law, that they have personally examined and are familiar with the information submitted in this document and all attachments and that, based on an inquiry of those individuals immediately responsible for obtaining the information, believe that the information is true, accurate, and complete. The undersigned are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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Section

Tables

APPENDICES

COMMON ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CDFG	California Department of Fish and Game
CFG(C)	California Fish and Game Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CWC	California Water Code
GIS	Geographic Information System
GPS	Global Positioning Systems
HUC	Hydrologic Unit Code
JACOBS	Jacobs Engineering Group
LRSs	Lake, River, or Streambed subject to Section 1600 of the California Fish and Game Code
MESA	Mapping Episodic Stream Activity Field Guide
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NOREAS	NOREAS Inc.
NRCS	National Resources Conservation Service
NWI	National Wetlands Inventory
RCA	Western Riverside County Regional Conservation Authority
RWQCB	Regional Water Quality Control Board
SA	Study Area
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDRs	Waste Discharge Requirements
WoS	Waters of the State

1.0 INTRODUCTION AND SUMMARY OF FINDINGS

This Jurisdictional Waters of the State Assessment (Report or JA) was prepared for the Stoneridge Commerce Center Project (hereafter referred to as the Project). The following JA is intended to delineate the extent of California Department of Fish and Wildlife (CDFW) jurisdiction - pursuant to Section 1600 (et seq.) of the California Fish and Game Code (CFG Code), and Section 13260 of the California Water Code (CWC), and those resources defined under Section 6.1.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) for Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. For the analysis contained within this JA, all features that qualify as CDFW Section 1600 (et seq.) jurisdictional, are considered MSHCP riparian/riverine resources.

This JA evaluates three distinct Project Components - the Project Footprint, Offsite, Conservation areas, and the surrounding localized watershed, for the presence of features that may be subject to regulation by the CDFW, RWQCB, and Western Riverside County Regional Conservation Authority (RCA) as Waters of the State (WoS) (Appendix A, Figure 1). This evaluation has been completed using data acquired from current and historic imagery, hydrologic databases, analytic tools, physical on the ground analyses/measurements, and a review of the regulations, manuals, and guidance documentation created to identify the aforementioned features. The Project includes a disturbance footprint (Project Footprint), off-site roadway improvements (Offsite), and conservation (Conservation) (Appendix A, Figure 2). The Project Footprint and Conservation areas are in unincorporated Riverside County, California. The Project's off-site roadway improvements (Offsite) are predominately within the existing paved portion of roadways, other than the small expansion of roadway to accommodate a lift station (or pump station that uses a collection system to move material from a lower to a higher elevation) and various discrete intersection modifications to address the use of the area for truck traffic.

For decades, the majority of the Project Components have been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Existing and past farming activities have resulted in the removal of native vegetation and alterations to floodplain topography. This JA provides a description and photo documentation of the features subject to regulation under Section 1600 (et seq.) of the CFG Code, and Section 13260 of the California Water Code (CWC), or are considered MSHCP riparian/riverine resources within the Project Footprint, Offsite, and Conservation areas, and a discussion of their character and regulatory status. Subject matter experts assessed the Project Components for the presence of riparian/riverine resources, lakes, rivers, streambeds, surface waters, and wetlands in November 2019, September 2020, April 2021, January, June and July, 2023.

The data presented within herein suggests that the vast majority of the Project Footprint (i.e., > 99%) does not include waters, wetlands, ground water resources, lakes, rivers, or streambeds subject to regulation under Section 1600 (et seq.) of the CFG Code, Section 13260 of the California Water Code (CWC), or are considered MSHCP riparian/riverine resources. This rationale is based on the following:

- The Project Footprint does not possess any creeks and rivers, as defined in Title 14, CCR, Section 1.72. As there is no riparian vegetation - or aquatic resources, within the Project Footprint that supports fish or other aquatic life; nor does the Project Footprint include watercourses having a surface or subsurface flow that supports - or has supported, riparian vegetation;
- There are no intermittent streams, blue-lines, swales, or erosional features that support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife within the Project Footprint;
- There is no observable difference in the vegetation composition, density, or vigor between the Project Footprint's erosional signatures, and the adjacent lands;

- There are no signatures within the Project Footprint – erosional or otherwise, that have a surface connection to the San Jacinto River, Canyon Lake or Lake Elsinore.
- All soil types mapped within the Project Footprint are well drained, and none have a hydric soil rating;
- The signatures detected within the Project Footprint are erosional and rills, characterized by depressions, and some are even the size of motorcycle tire ruts. These features have small, negligible, localized watershed areas, and they do not possess aquatic resources, or other attributes that would distinguish them functionally - or biologically, from upland habitats;
- There is no aquatic or riparian vegetation, aquatic animals (i.e., fish, amphibians, reptiles and invertebrates), or terrestrial species which derive benefits from a stream system within the Project Footprint;
- There are no discernable banks, rack lines, shelving, or “in-stream” features within the Project Footprint;
- The Project Footprint is not within the 100-year flood plain;
- The native vegetation occurring naturally along the Project Footprint’s erosional signatures, rills and ruts are not the result of increased water availability, or nutrients. Nor does it create an "edge'' - or ecotone between vegetation types that require water on one side, and adjacent upland habitat on the other; nor are there “natural banks” or evidence of confined flows that persist within the Project Footprint. No streambed indicators are present within the Project Footprint; and
- Signatures observed within the Project Footprint meet the general definition and description for ruts and rills, and other erosional features characterized by low volume, infrequent, or short duration flow.

The vast majority of signatures (i.e., >99%) within the Project Footprint are not WoS. Nonetheless, the Project includes riparian (22.30-acres) and non-riparian ephemeral dry washes and streambeds (7.92-acres) which total 5,211 linear feet (Appendix A, Figure 3). These washes either connected, cross - or are within, the San Jacinto River. These distinct features have discernable bank lines with topographic relief, connectivity to the San Jacinto River, and subsequently to Canyon Lake, Lake Elsinore, the Santa Ana River and the Pacific Ocean. As a result, it has been determined that the aforementioned features consist of 30.22-acres of ephemeral, riparian and non-riparian streambeds which are characterized as WoS.

To that end, this JA presents NOREAS Inc. (NOREAS) and Jacobs Engineering Group (JACOBS) best professional judgment at estimating special aquatic resource area boundaries using the most up-to-date regulations, written policies, and guidance from the CDFW.

2.0 REGULATORY SETTING

This section provides an overview of local and state guidelines, including environmental laws and regulations, that pertain to all bodies of water, surface waters, lakes, rivers, wetlands, groundwater, and streambeds, collectively known as 'WoS' in this document.

2.1.1 California Fish and Game Code Sections 1600 - Practical Guidance

CDFW has provided information and practical guidance for consistent and uniform administration of Section 1600 (et seq.) of the CFG Code within *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607* (ESD-CDFG 1994). In its most general sense, CFG Code Sections 1600 (et seq.) establishes a fee-based process to safeguard that projects conducted in and around lakes, rivers, or streams do not adversely impact fish, aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife resources. Or, when adverse impacts cannot be avoided, compliance with the aforesaid CFG Code Sections safeguards that adequate mitigation and/or compensation is provided.

While there is no definition for the term lake in the CFG Code or associated regulations, the term stream, which includes creeks and rivers, is defined within Title 14, California Code of Regulations (CCR), Section 1.72:

- "A stream is 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 a surface or subsurface flow that supports or has supported riparian vegetation."

Nonetheless, this definition is not complete with respect to CFG Code Sections 1600 (et seq.) because it does not define the terms bed, channel, or bank and does not define other stream-related features such as aquatic life, riparian vegetation, etc. As a result, CDFW published the following concepts with deference to what constitutes a stream for the purposes of implementing and enforcing CFG Code Sections 1600 (et seq.) (ESD-CDFG 1994).

1. The term stream can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (United States Geological Survey maps, USGS), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be ***considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife***.

2. Biologic components of a stream may ***include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system.***

3. As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis) ***but also a bed or channel, a bank and/or levee, instream features such as logs or snags, and various flood plains depending on the return frequency of the flood event being considered (i.e., 10, 50, or 100 years, etc.)***.

4. The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish or wildlife resource at risk. The following criteria are presented in order from the most inclusive to the least inclusive:

    a. The flood plain of a stream can be the broadest measurement of a stream's lateral extent depending on the return frequency of the flood event used. For most flood control purposes, the 100-year flood event is the standard measurement and maps of the

100-year flood plain exist for many streams. However, the 100-year flood plain may include significant amounts of upland or urban habitat and therefore may not be appropriate in many cases.

b. The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is therefore a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.
c. Most streams have a natural bank which confines flows to the bed or channel except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark the lateral extent of a stream.
d. A levee or other artificial stream bank could also be used to mark the lateral extent of a stream. However, in many instances, there can be extensive areas of valuable riparian habitat located behind a levee.

Any of the above criteria could be applicable in determining what constitutes a stream depending on the potential for the proposed activity to adversely affect fish and other stream-dependent wildlife resources.

2.1.2 California Fish and Game Code Sections 1600 - Effective January 1, 2004

1600. The Legislature finds and declares that the protection and conservation of the fish and wildlife resources of this state are of utmost public interest. Fish and wildlife are the property of the people and provide a major contribution to the economy of the state, as well as providing a significant part of the people's food supply; therefore, their conservation is a proper responsibility of the state.

This chapter is enacted to provide conservation for these resources.

1601. The following definitions apply to this chapter:

(a) "Agreement" means a lake or streambed alteration agreement.
(b) "Day" means calendar day.
(c) "Emergency" has the same definition as in Section 21060.3 of the Public Resources Code.
(d) "Entity" means any person, state or local governmental agency, or public utility that is subject to this chapter.

1602. (a) An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement ***where it may pass into any river, stream, or lake***, unless all of the following occur:

(1) The department receives written notification regarding the activity in the manner prescribed by the department. The notification shall include, but is not limited to, all of the following:

(A) A detailed description of the project's location and a map.
(B) The name, if any, of the river, stream, or lake affected.
(C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.
(D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.
(E) A copy of any other applicable local, state, or federal permit or agreement already issued.
(F) Any other information required by the department.

(2) The department determines the notification is complete in accordance with Chapter 4.5 (commencing with Section 65920) of Division 1 of Title 7 of the Government Code, irrespective of whether the activity constitutes a development project for the purposes of that chapter.

(3) The entity pays the applicable fees, pursuant to Section 1609.

(4) One of the following occurs:

(A)

(i) The department informs the entity, in writing, that the activity will not substantially adversely affect an existing fish or wildlife resource, and that the entity may commence the activity without an agreement, if the entity conducts the activity as described in the notification, including any measures in the notification that are intended to protect fish and wildlife resources.

(ii) Each region of the department shall log the notifications of activities where no agreement is required. The log shall list the date the notification was received by the department, a brief description of the proposed activity, and the location of the activity. Each item shall remain on the log for one year. Upon written request by any person, a regional office shall send the log to that person monthly for one year. A request made pursuant to this clause may be renewed annually.

(B) The department determines that the activity may substantially adversely affect an existing fish or wildlife resource and issues a final agreement to the entity that includes reasonable measures necessary to protect the resource, and the entity conducts the activity in accordance with the agreement.

(C) A panel of arbitrators issues a final agreement to the entity in accordance with subdivision (b) of Section 1603, and the entity conducts the activity in accordance with the agreement.

(D) The department does not issue a draft agreement to the entity within 60 days from the date notification is complete, and the entity conducts the activity as described in the notification, including any measures in the notification that are intended to protect fish and wildlife resources.

(b) (1) If an activity involves the routine maintenance and operation of water supply, drainage, flood control, or waste treatment and disposal facilities, notice to and agreement with the department shall not be required after the initial notification and agreement, unless the department determines either of the following:

(A) The work described in the agreement has substantially changed.

(B) Conditions affecting fish and wildlife resources have substantially changed, and those resources are adversely affected by the activity conducted under the agreement.

(2) This subdivision applies only if notice to, and agreement with, the department was attained prior to January 1, 1977, and the department has been provided a copy of the agreement or other proof of the existence of the agreement that satisfies the department, if requested.

(c) It is unlawful for any person to violate this chapter.

2.1.3 State 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 WoS. WoS are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]). 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. WDRs, and waivers of WDRs are also referred to as orders or permits.

2.1.4 Western Riverside County Multiple Species Habitat Conservation Plan Riparian Riverine Resources & Vernal Pools

According to Section 6.1.2 of the MSHCP:

- "Riparian/Riverine Areas are 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."

- "Vernal pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records."

As defined under Section 6.1.2 of the MSHCP, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, riparian/riverine areas are areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to several listed or special-status water-dependent fish, amphibian, avian, and plant species.

For this analysis - within the Project Footprint, Offsite and Conservation areas, all features that qualify as CDFW jurisdiction are considered MSHCP riparian/riverine resources, and WoS.

3.0 METHOD

Prior to performing field surveys, documentation relevant to the Project Components and surrounding area was reviewed using the methods and databases listed below.

3.1 Literature Reviews

Prior to conducting fieldwork, the following information was reviewed to determine watershed characteristics, locations and types of aquatic resources that may be present within the Project Footprint, Conservation and Offsite areas:

- Perris and Romoland, California Topographic Map 7.5-minute USGS Map (USGS 1987);
- 2023 color aerial photographs (Bing Maps 2023);
- Google Earth version 5.2.1.1588 (March 2023);
- Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO) (USDA-NRCS 2023);
- Natural Resource Conservation Service, Watershed Boundary Dataset (USDA-NRCS 2023b);
- Environmental Protection Agency Enviromapper for Water (EPA 2023);
- Federal Emergency Management Agency (FEMA 2023);
- National Wetlands Inventory (NWI) maintained by the US Fish and Wildlife Service (USFWS 2023);
- 2023 U.S. Environmental Protection Agency (EPA) WATERS GeoViewer Tool (epa.maps.arcgis.com/apps/webappviewer);
- 2023 EPA Antecedent Precipitation Tool (APT) (epa.gov/wotus/antecedent-precipitation-tool-apt);
- 2023 California National Climate Data Center (NCDC, 2023) Data.
- Biological Technical Report for Stoneridge Commerce Center. (GLA 2022a);
- Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. (GLA 2022b);
- Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021 (Hunsaker & Associates. 2021).

The Project Footprint, Conservation and Offsite areas were examined to assess the presence of a discernable bed and bank, riparian or aquatic habitat, aquatic fish and wildlife resources, or evidence of a change in vegetation type, density, or vigor. The intent of this assessment was to determine where water may flow, or may not flow - or terminate, and was used to determine efficient locations for visual inspections to occur in the field.

3.1.1 Aerial Photography

Historic and current aerial photography of the Project Footprint, Conservation and Offsite areas were reviewed, prior to and during the field assessments. Aerial photography was informative with deference to the state and function of land resources in both the present, and historic context. Inundation and vegetative signatures on aerial images can imply the presence - or absence, of lakes, rivers, or streambed systems within a discrete location.

3.1.2 U.S. Fish and Wildlife Service National Wetland Inventory Data and Environmental Protection Agency WATERS GeoViewer

The Federal Emergency Management Agency (FEMA) flood zone is depicted in Appendix A, Figure 6. Furthermore, the National Wetland Inventory (NWI) – which is maintained by the U.S. Fish and Wildlife Service (USFWS), was reviewed to support the identification of potential aquatic resources within the Project Footprint, Conservation and Offsite areas (Figure 7). However, this database (i.e., the NWI) specifically rejects its use for regulatory jurisdictional review. Additionally, the U.S. Environmental

Protection Agency (EPA) WATERS GeoViewer tool provided access to spatial data sets (Appendix A, Figures 8 and 9) - such as interactive Upstream/Downstream search capabilities, and interactive watersheds, to assist in determining the jurisdictional status of resources detected within the Project Components (epa.maps.arcgis.com/apps/webappviewer).

3.1.3 Antecedent Precipitation Tool

The Antecedent Precipitation Tool (APT) was also utilized to determine whether Project Footprint, Conservation and Offsite area observations are representative of typical climatic conditions (i.e., those that have been experienced over the past thirty years). This tool is informative when assessing whether certain field conditions are observed during typical, as opposed to atypical rainfall cycles. The APT queries data from weather stations that are located within a 30-mile radius from the Project.

3.1.4 Topography

USGS topographic maps were reviewed as well. These maps tend to illustrate elevation contours, drainage patterns, and hydrography within the Project Footprint, Conservation and Offsite areas. USGS 7.5-Minute Topographic Quadrangles "Perris" and "Romoland" were evaluated to facilitate identification of potential drainage features within the Project Footprint, Conservation and Offsite areas - as indicated from topographic changes, blue-line features, or visible drainage patterns in order to characterized features.

3.2 Procedures and Field Data Collection Techniques

A field delineation was conducted within the Project Footprint, Conservation and Offsite areas using a combination of on the ground quantification, and remote sensing with on the ground verification via pedestrian surveys in November 2019, September 2020, April 2021, January, June and July, 2023. With respect to suspected jurisdictional features; they were assessed in the field for the presence of definable streambeds (i.e., having a bed, bank, and channel) and any associated riparian habitat. Streambeds and suspected riparian habitats were evaluated using the CFGC Section 1600 (et seq.), direction described in *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607* (ESD-CDFG 1994) and the recommendations detailed within the Mesa Field Guide: Mapping Episodic Stream Activity (Vyverberg et al. 2014) (MESA).

Accordingly, CFGC Section 1600 (et seq.) jurisdiction is presumed to extend to the following features:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects, and riparian vegetation will be treated like natural waterways.
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated as natural waterways.
- Artificial waterways without the attributes of natural waterways should generally not be subject to CFGC provisions.

MESA was also used to assist with identification and mapping of episodic streams; and identification of locations where water is absent and/or has been absent for several years - or more. To that end, total WoS jurisdictional limits were delineated for surface waters, lakes, rivers, streams (i.e., defined bed, bank, and channel) or other land cover types used by fish, aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife resources within the Project Footprint, Conservation and Offsite areas. The dimensions (i.e., linear length, width, and area) of each feature were generally determined based on the top-of-bank limits. If adjacent bank, floodplain, and/or terrace areas are included within the cover types that could be used by fish, aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife resources, then the feature plus any associated land cover was mapped and included as WoS.

However, within the Project Footprint, Offsite and Conservation areas there are signatures which meet the general definition and description for topographic lows, rills, gullies, swales, features excavated wholly in - and that drain only upland areas, and erosional signatures. These features were determined not to be WoS. The majority of these features are a result of road improvements, explicitly those related to drainage infrastructure, where roadside swales and culverts are created out of uplands, and are maintained to prevent street flooding; by merely conveying water away from the impermeable roads and other developed surfaces. These features are engineered and designed to collect precipitation and urban runoff along the roadway and other infrastructure. But more importantly, these features lack connectivity - or the capacity to interact with the larger landscape, as they are not tributary to any larger drainage system. Nonetheless, they disperse water away from vital infrastructure after significant rainfall events, etc., resulting in notable erosion or sedimentation issues. Not surprisingly, this category of feature is routinely subject to anthropogenic disturbance in the form of repairs, clean-outs, enlargements, maintenance and other modifications. These are not natural streams, washes or rivers, etc. – to the contrary, they are artificial features without the attributes of natural waterways; nor do they connect downstream habitats with other aquatic resources. As a result, none of the aforesaid signatures were determined to be subject to regulation under Section 1600 (et seq.) of the CFG Code; California Water Code section 13000 et seq.; or considered riparian/riverine resources as defined under Section 6.1.2 of the MSHCP.

4.0 RESULTS

The topography within the Project Components generally slopes downward from the northwest to southeast - from 1,660 feet to 1,420 feet, above mean sea level (amsl).

4.1 Soils

The Web Soil Survey is an online Geographic Information System (GIS) that provides the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) with online soil data (NRCS 2023). This website was used to assess soil characteristics and soil types within the Project Footprint, Conservation and Offsite areas. This database was also used to determine if the Project Component's mapped soils were likely to include any hydrologically influenced areas.

According to the USDA NRCS, the Project Components consists of the following soil complexes (Appendix, Figure 4).

Project Footprint
- HcC, Haire clay loam, 0 to 9 percent slopes;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- MmD2, Miramar coarse sandy loam, moderately steep, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, Eroded;
- Wn, Wyo silt loam;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded; and
- RaC2, Rincon clay loam, 2 to 9 percent slopes, eroded.

Conservation Area
- Wn, Wyo silt loam;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- Wg, Wyo loam, deep over gravel; and
- RsC, Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14.

Offsite Area
- EnA, Exeter sandy loam, 0 to 2 percent slopes;
- EnC2, Elder shaly loam, 2 to 9 percent slopes, eroded;
- ReC2, Ramona very fine sandy loam, 0 to 8 percent slopes, eroded;
- HcC, Haire clay loam, 0 to 9 percent slopes;
- VsD2, Vista coarse sandy loam, 9 to 15 percent slopes, Eroded;
- VtF2, Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded;
- CkF2, Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded;
- HcD2, Haire clay loam, 9 to 15 percent slopes, eroded;
- FaD2, Fallbrook sandy loam, 8 to 15 percent slopes, eroded;
- GyC2, Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded; and
- Wn, Wyo silt loam.
- Wg,Wyo loam, deep over gravel

- Wh,Wyo gravelly loam, moderately deep over gravel
- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes

Of the above referenced soil types, none are formally classified as hydric. Please note that the NRCS Soil mapped units do not provide precise information, about the locations of soil types - or their inclusions. NRCS Soil Survey data users are cautioned that due to the limitations of mapping – primarily through aerial photo interpretation, a percentage of unique soil types may have gone unidentified, or misidentified.

4.2 Hydrology

The Project Components are located within the San Jacinto Regional Watershed (Hydrologic Unit Code 18070202) (Appendix A, Figure 5). It is notable, that both EPA WATERS GeoViewer results, and USGS 7.5 Quadrangle Map evidence no stream channels within the Project Footprint (Appendix A, Figure 1, 8 and 9).

It is also important to notice that although the NWI was reviewed, it was not considered indicative of the resources observed within the Project Components for the following reasons:

1) NWI users are cautioned that the features displayed therein show wetland type and extent using a biological definition. There is no attempt to define the limits of proprietary jurisdiction of any Federal, State, or local government - or to establish the geographical scope of the regulatory programs of government agencies. Therefore, the data should not be relied upon for jurisdictional identification.
2) NWI maps have been prepared from limited analysis of high-altitude imagery in conjunction with collateral data sources focusing on wetlands. When imagery is conflicting, the Environmental Systems Research Institute (ESRI) Base imagery is used.
3) The features within the Project Components are relatively small, and do not have obvious vegetation species variability, making they are indistinguishable from other signatures (e.g., off highway vehicle tracks), at high altitude.

4.3 Waters of the State - Project Footprint

The data presented within herein suggests that the vast majority of the Project Footprint (i.e., > 99%) does not include WoS. Although the NWI was reviewed, it was not considered indicative of the resources observed within the Project Footprint. Additionally, soil types mapped within the Project Footprint are well drained, and none have a hydric soil rating. The vast majority of signatures observed (i.e., >99%) within the Project Footprint are erosional (i.e., ruts, rills, and gullies) and lack a surface connection to the San Jacinto River, and never reach Canyon Lake nor Lake Elsinore (Appendix B). These erosional signatures are characterized as small depressions – some widths were under 16 inches, or the size of motorcycle tire

ruts. These signatures have small, negligible, localized watershed areas as well – and they do not possess aquatic resources or other features, that distinguish them from upland habitats.

1. The term stream can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (United States Geological Survey maps, USGS), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

With the exception of 22 linear feet, there are no intermittent streams, blue-lines, swales, or erosional signatures that support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife within the Project Footprint. There is no observable difference in the vegetation composition, density, or vigor between the erosional signatures and the adjacent lands.

2. Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system.

With the exception of 22 linear feet, there is no aquatic or riparian vegetation, aquatic animals (i.e., fish, amphibians, reptiles and invertebrates), or terrestrial species which derive benefits from a stream system within the Project Footprint.

3. As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis) but also a bed or channel, a bank and/or levee, instream features such as logs or snags, and various flood plains depending on the return frequency of the flood event being considered (i.e., 10, 50, or 100 years, etc.).

With the exception of 22 linear feet, there are no discernable banks, rack lines, shelving, or “in-stream” features within the Project Footprint. There is not a detectable differentiation between erosional signatures and tire ruts, and the adjacent upland areas.

4. The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish or wildlife resource at risk. The following criteria are presented in order from the most inclusive to the least inclusive:

    a. The flood plain of a stream can be the broadest measurement of a stream's lateral extent depending on the return frequency of the flood event used. For most flood control purposed, the 100-year flood event is the standard measurement and maps of the 100-year flood plain exist for many streams. However, the 100-year flood plain may include significant amounts of upland or urban habitat and therefore may not be appropriate in many cases.

The Project Footprint is not within a 100-year flood plain.

    b. The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is therefore a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.

With the exception of 22 linear feet, there is no riparian vegetation within the Project Footprint, nor does it include any aquatic, riparian or riverine resources. As the native vegetation occurring naturally along the Project Footprint's erosional signatures, rills and tire ruts are not the result of increased water availability, or nutrients. Nor does it create an "edge" or ecotone between vegetation types that require water on one side, and adjacent upland habitat on the other.

c. Most streams have a natural bank which confines flows to the bed or channel except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark lateral extent of a stream.

With the exception of 22 linear feet, there are no "natural banks" or evidence of confined flows that persist such that there is a detectable differentiation between erosional signatures, tire ruts, rills, and the adjacent upland areas within the Project Footprint.

The vast majority of the signatures within the Project Footprint are not WoS, but meet the general definition and description for ruts, rills and erosional signatures characterized by low volume, infrequent - or short duration, flow.

4.3.1 "Where it may pass into any river, stream, or lake" - California Fish and Game Code Section 1602. (a)

Project Footprint generally slopes downward from the northwest to southeast. With the exception of 22 linear feet, there is no evidence of water flow leaving the Project Footprint and entering into the San Jacinto River (Appendix B). The vast majority of unnamed erosional signatures within the Project Footprint are contained therein. With the exception of 22 linear feet, no activity within the Project Footprint will result in the deposit or disposal of debris, waste, or other material containing crumbled, flaked, or ground pavement into the San Jacinto River – Canyon Lake or Lake Elsinore.

4.4 Waters of the State

The Project includes riparian (22.30-acres) and non-riparian ephemeral dry washes and streambeds (7.92-acres) which total 5,211 linear feet (Appendix A, Figure 3). These washes either connected, cross - or are within, the San Jacinto River. These distinct features have discernable bank lines with topographic relief, connectivity to the San Jacinto River, and subsequently to Canyon Lake, Lake Elsinore, the Santa Ana River and the Pacific Ocean. As a result, it has been determined that the aforementioned features consist of 30.22-acres of ephemeral, riparian and non-riparian streambeds which are characterized as WoS.

Table 1. State Waters within Project Components

Unique Identifier	Latitude	Longitude
1	33.8218099	-117.1576875
2	33.8021366	-117.1658022
3	33.8010258	-117.1659341
4	33.8011193	-117.1562821

Graphics depicting the limits of WoS are provided as Appendix A - Figure 3, and photographs are provided as Appendix B. Table 2 below summarizes WoS jurisdiction in more detail, and is followed by a description of each waterway.

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Table 2. Summary of Waters of the State

Unique Identifier	Total CDFW Non-Riparian Stream (Acres)	Total CDFW Riparian Stream (Acres)	Total CDFW Jurisdiction (Acres)	Total Length (Linear Feet)
Waters of the State within the Project Footprint				
Feature 1	0	0	0	0
Feature 2	0.31	0.03	0.34	22
Feature 3	0	0	0	0
Feature 4	0	0	0	0
Waters of the State within the Conservation Area				
Feature 1	0	20.59	20.59	2,040
Feature 2	6.85	1.42	8.27	1,020
Feature 3	0	0	0	0
Feature 4	0	0	0	0
Waters of the State within the Offsite Areas				
Feature 1	0	0	0	0
Feature 2	0.39	0.26	0.65	253
Feature 3	0.26	0	0.26	960
Feature 4	0.11	0	0.11	916
Total	**7.92**	**22.30**	**30.22**	**5,211**

Feature 1

Feature 1 is an anthropogenically disturbed Alkali Playa (Appendix A, Figure 3). For decades, this area has been subject to agricultural use, resulting in intensive ground and soil disturbance. Activities have included, but not been limited to irrigated alfalfa farming, barley and oat dry-land farming, commercial nursery operations, potato farming, disking for weed abatement, fire suppression, and sheep grazing. Past disking for weed abatement, fire suppression, sheep grazing and farming activities have resulted in the removal of native vegetation and alterations to floodplain topography in this location. Feature 1 is within the historical floodplain of the San Jacinto River and exhibits signs of temporary inundation during the wet season as evidenced by the presence of surface soil cracks during the dry season.

While decades of agriculture practices and disturbances throughout this area have modified conditions, site topography continues to convey storm flows in a general west to east direction, depending on rainfall amounts. This disturbed playa is presumed to be both adjacent to, and hydrologically connected to, the

San Jacinto River. The disturbed playa contains a mosaic of species, including silverscale saltbush (*Atriplex argentea*), alkali weed (*Cressa truxillensis*), bush seepweed (*Suaeda nigra*), heliotrope (*Heliotropium curassavicum*), alkali mallow (*Malvella leprosa*), smooth tarplant (*Centromadia pungens ssp. laevis*), and San Jacinto Valley crownscale (*Atriplex coronata var. notatior*). Additional non-native species occur in this area as well including foxtail barley (*Hordeum murinum*), summer mustard (*Hirschfeldia incana*), Jimsonweed (*Datura wrightii*), prickly lettuce (*Lactuca serriola*), and doveweed (*Croton setiger*).

Feature 2

Feature 2 is the San Jacinto River (Appendix A, Figure 3). The San Jacinto River is a water conveyance feature within the Conservation and Offsite areas, along the Project's eastern boundary. The San Jacinto River flows from northeast to southwest, and includes intermittent riparian habitat.

Vegetation within and along the banks of the San Jacinto River includes the following riparian species; black willow (*Salix gooddingii*), tamarisk (*Tamarix* ssp.), and mulefat (*Baccharis salicifolia*), with herbaceous species including common spikerush (*Eleocharis palustris*) and toothed dock (*Rumex dentatus*). Non-native species such as summer mustard, foxtail barley, and annual brome grasses are the dominant species.

Feature 3

Feature 3 is a disturbed earthen drainage (Appendix A, Figure 3). This feature is tributary to the San Jacinto River, but only experiences brief periods of flowing - or standing water, for only a short duration in direct response to precipitation. This drainage's width is subject to change after storm events due to soil characteristics, but includes a defined channel and banks. Its banks contain a few scattered black willow and tamarisk trees, but include upland vegetation species such as Russian thistle (*Salsola tragus*) and disturbed California buckwheat (buckwheat scrub) scrub vegetation. Adjacent lands have been disturbed as part of ongoing dry farming activities.

Feature 4

Feature 4 is a disturbed earthen drainage, in the vicinity of the intersection of Nuevo Road and Menifee Road (Appendix A, Figure 3). This feature is ultimately tributary to the San Jacinto River. While Feature 4 only experiences brief periods of flowing - or standing water, for only a short duration in direct response to precipitation, it nonetheless provides a linkage to the San Jacinto River. This drainage's width is subject to change after storm events due to soil characteristics, but includes discernable banks, rack lines, shelving and channels. Its banks contain a ruderal vegetation such as brome grass (*Bromus* sp.), mustard (*Brassica nigra*), stinknet (*Oncosiphon piluliferum*), puncture vine (*Tribulus terrestris*), London rocket (*Sisymbrium irio*), red-stemmed filaree (*Erodium cicutarium*). Adjacent lands have been disturbed as part of ongoing farming and other agricultural activities.

4.5 Conclusion

This JA has determined that the Project includes riparian (22.30-acres) and non-riparian ephemeral dry washes and streambeds (7.92-acres) which total 5,211 linear feet (Appendix A, Figure 3). These washes either connected, cross - or are within, the San Jacinto River. These distinct features have discernable bank lines with topographic relief, connectivity to the San Jacinto River, and subsequently to Canyon Lake, Lake Elsinore, the Santa Ana River and the Pacific Ocean. As a result, it has been determined that the aforementioned features consist of 30.22-acres of ephemeral, riparian and non-riparian streambeds which are characterized as WoS.

5.0 REFERENCES

California Code of Regulations: Title 14, California Code of Regulations (CCR), Section 1.72

ESD California Department of Fish and Game (ESD-CDFG 1994). 1994. *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607.*

California Department of Fish and Wildlife: Protection and Conservation Section 1600. Universal Citation: CA Fish & Game Code § 1600 (2021)

California Department of Fish and Wildlife: MASA (Mapping Episodic Stream Activity) Methods to describe and delineate episodic stream processes on arid landscapes for permitting utility-scale solar power plants (2014

Federal Emergency Management Agency (FEMA). 2023. Flood data 100-Year flood zone map.

Glenn Lukos Associates, Inc. (GLA), 2022a. Biological Technical Report for Stoneridge Commerce Center. February 24, 2022;

Glenn Lukos Associates, Inc. (GLA), 2022b. Jurisdictional Delineation of the Stoneridge Commerce Center and the Northerly and Southerly Offsite Truck Route Road Improvements and Use Project [SP00239A01]. February 4, 2022;

Hunsaker & Associates. 2021. Preliminary Hydrology Analysis TTM 32372 – Stoneridge Industrial. August 2021.

Jepson Flora Project (eds.) 2021, *Jepson eFlora*, http://ucjeps.berkeley.edu/eflora/. accessed 15 February 2021.

National Wetlands Inventory (NWI). 2023. U.S. Fish and Wildlife Service Wetlands Mapper. Available online at: https://www.fws.gov/wetlands/data/mapper.html.

Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey. Map Unit Descriptions. Available at: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

2023 California National Climate Data Center (NCDC, 2023).

U.S. Department of the Interior, United States Geographical Survey. (1987) Publications of the United States Geological Survey, 1987, DOI USGS. https://pubs.usgs.gov/unnumbered/70043721/report.pdf

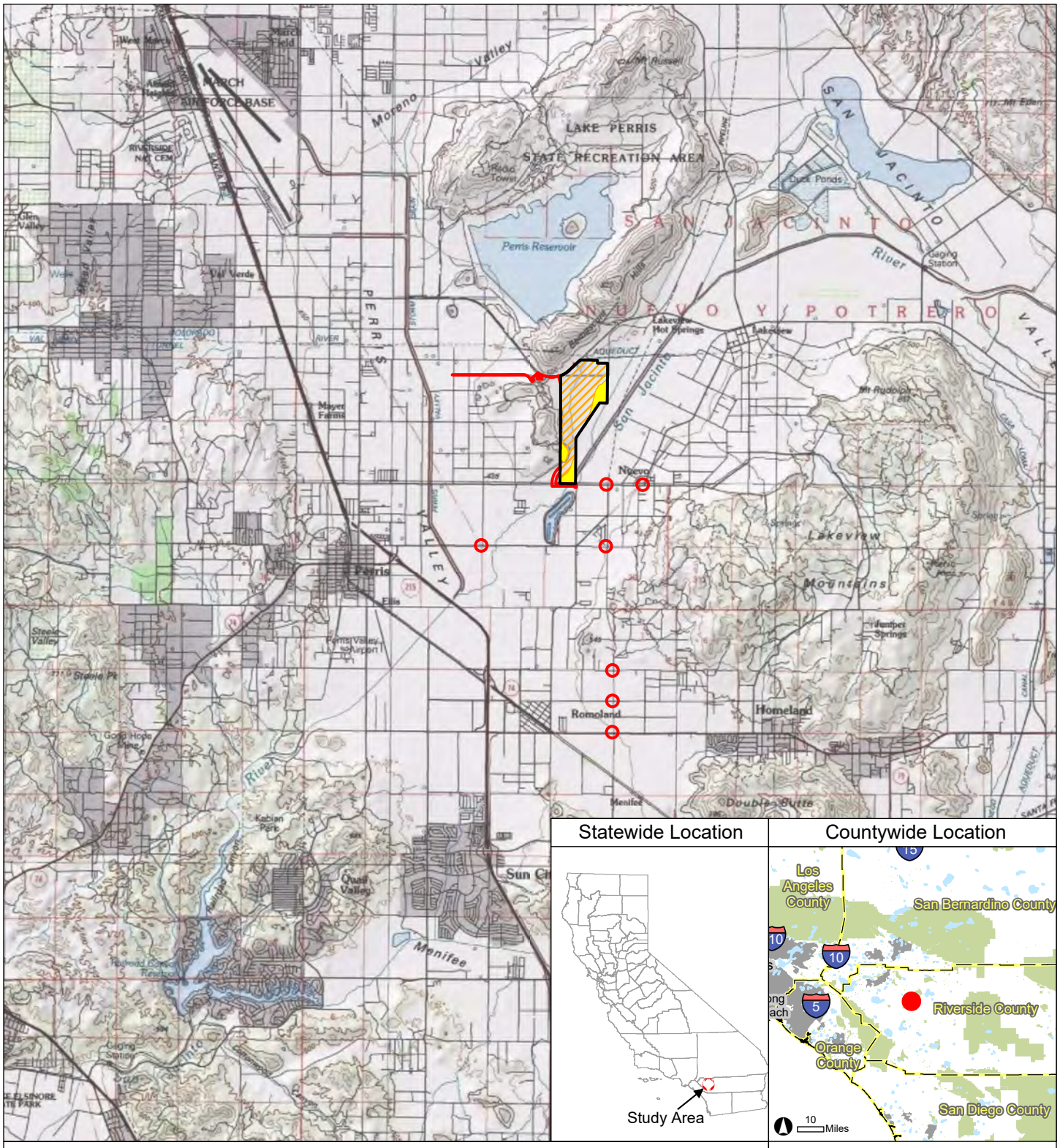
U.S. Environmental Protection Agency (EPA). 2022. Enviromapper for Water. <URL: http://map24.epa.gov/EMR/ >

USDA-NRCS 2023a, 2023. Natural Resource Conservation Service, Soil Survey Geographic Database (SSURGO)

Vyverburger, K., Brady, R.H. 2014. Methods to describe and delineate episodic stream processes on arid landscapes for permitting utility-scale solar power plants, (MESA) California Energy Commission. https://www.energy.ca.gov/publications/2014/methods-describe-and-delineate-episodic-stream-processes-arid-landscapes

Western Regional Climate Center (WRCC). 2023. Period of Record Monthly Climate Summary, California. Available online at: https://wrcc.dri.edu.

Appendix A
Figures



Project Site
Offsite
Project Footprint
Conservation Area

Interstate or State Highway (inset)
County Boundary (inset)
Urban Area (inset)
Park or National Forest (inset)
Water Body (inset)

0 6,000 12,000 Feet
1 inch = 12,000 feet

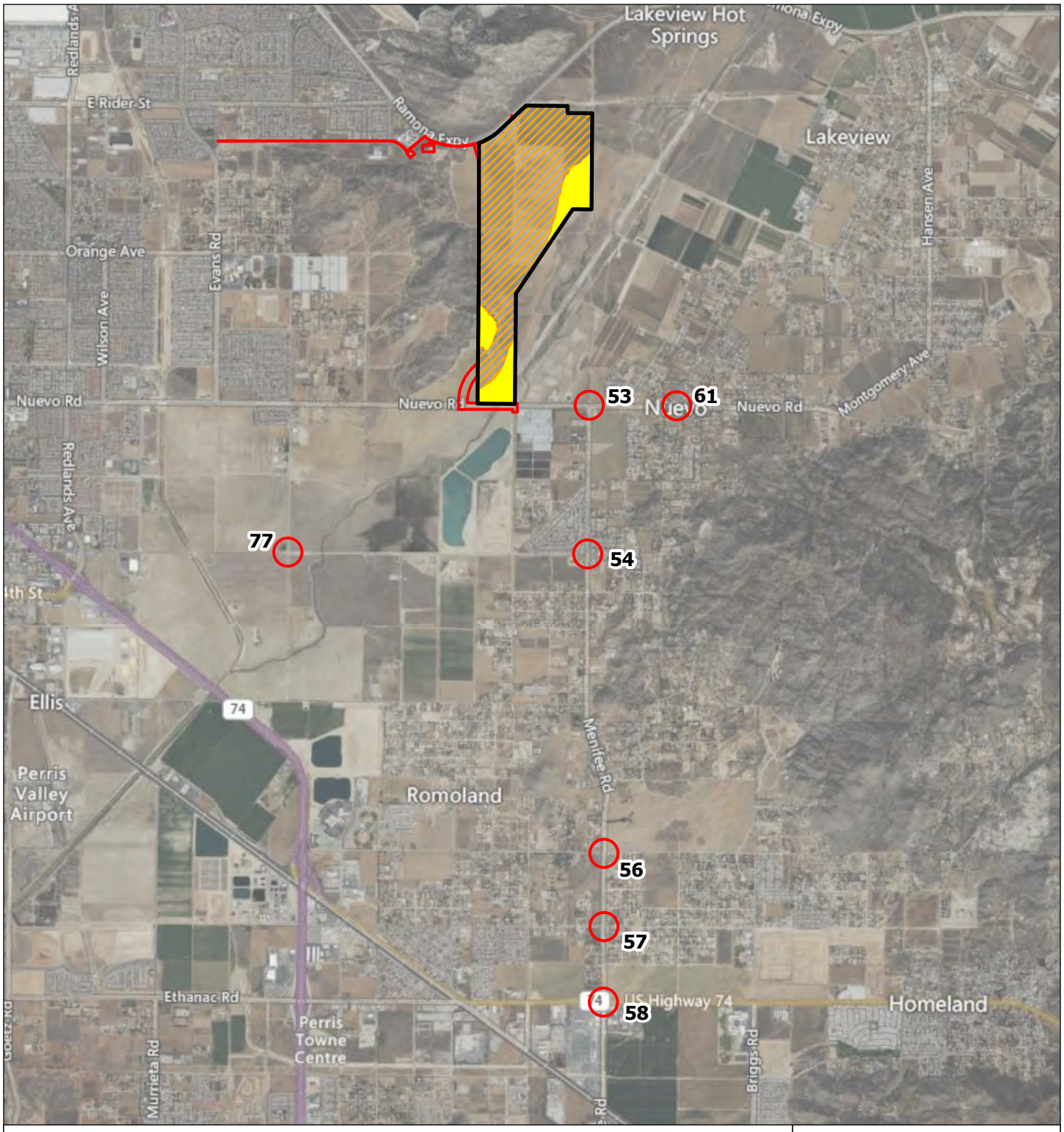
Data Sources:
- Bureau of Land Management Cadastral GIS 2015
- USGS 7.5-minute quadrangle map
- ESRI US Topo Maps accessed Jun 2023

Map Prepared: 6-27-23

Prepared by:
NOREAS
Environmental Engineering and Science

The Study Area is located in Riverside County on the Perris and Romoland USGS 7.5-minute quadrangle maps;
San Bernardino Meridian, Township 4S, Range 3W, in Sections 00, 25, 26, 28, 33, 34, 35, 36;
Township 5S, Range 3W, in Sections 01, 02, 11, 12, 13, 14
Center coordinates (WGS 1984): 117.178°W 33.78°N

Figure 1. Regional Location



Project Site (582.64 ac)
Offsite (153.42 ac)
Conservation Area (97.11 ac)
Project Footprint (485.53 ac)

0 2,500 5,000 Feet

1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 2. Site Vicinity

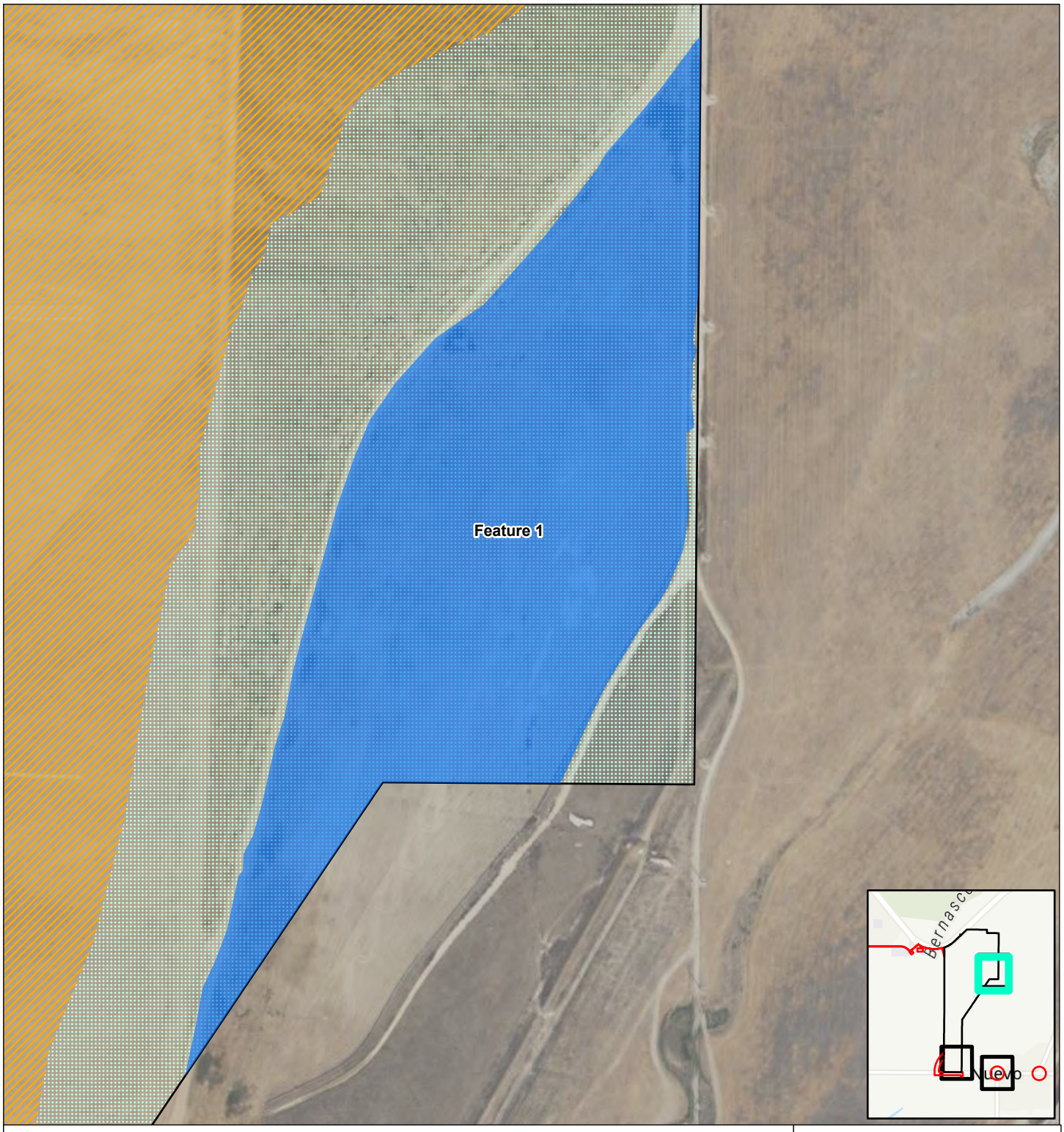


Figure 3a. Waters of the State

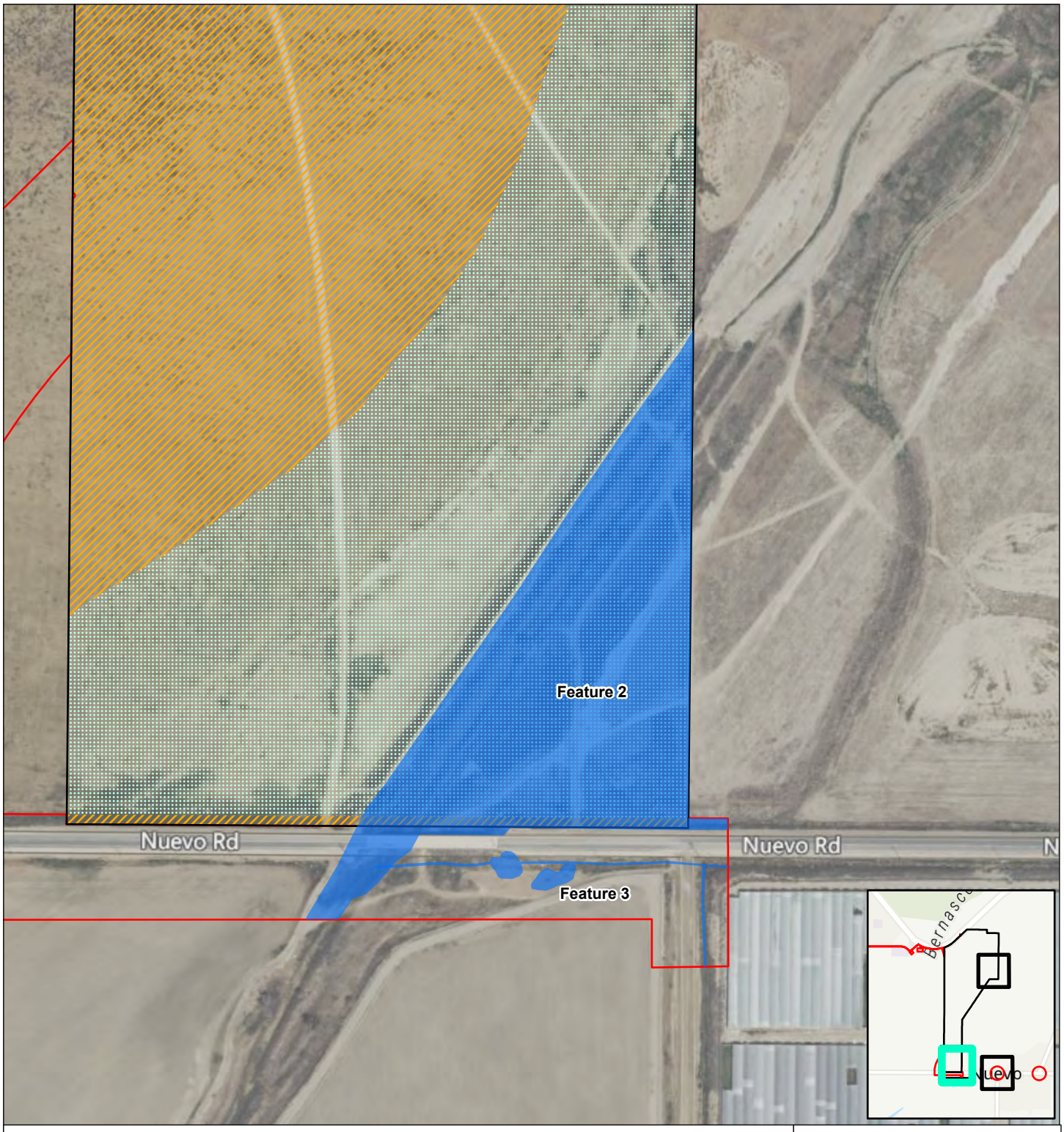
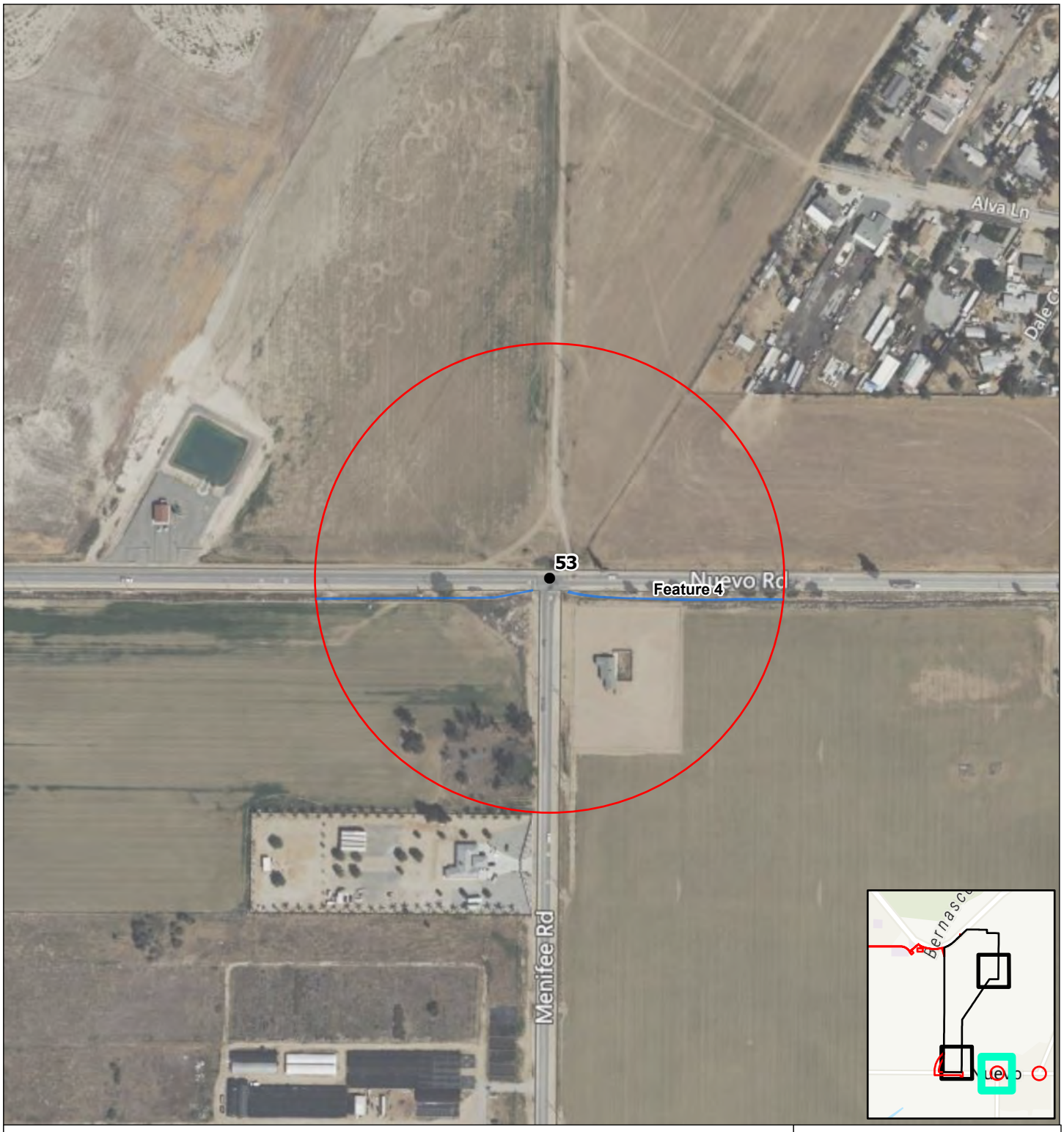


Figure 3b. Waters of the State



Project Site
Offsite
Project Intersection

Waters of the State
CDFW/RWQCB/MSHCP

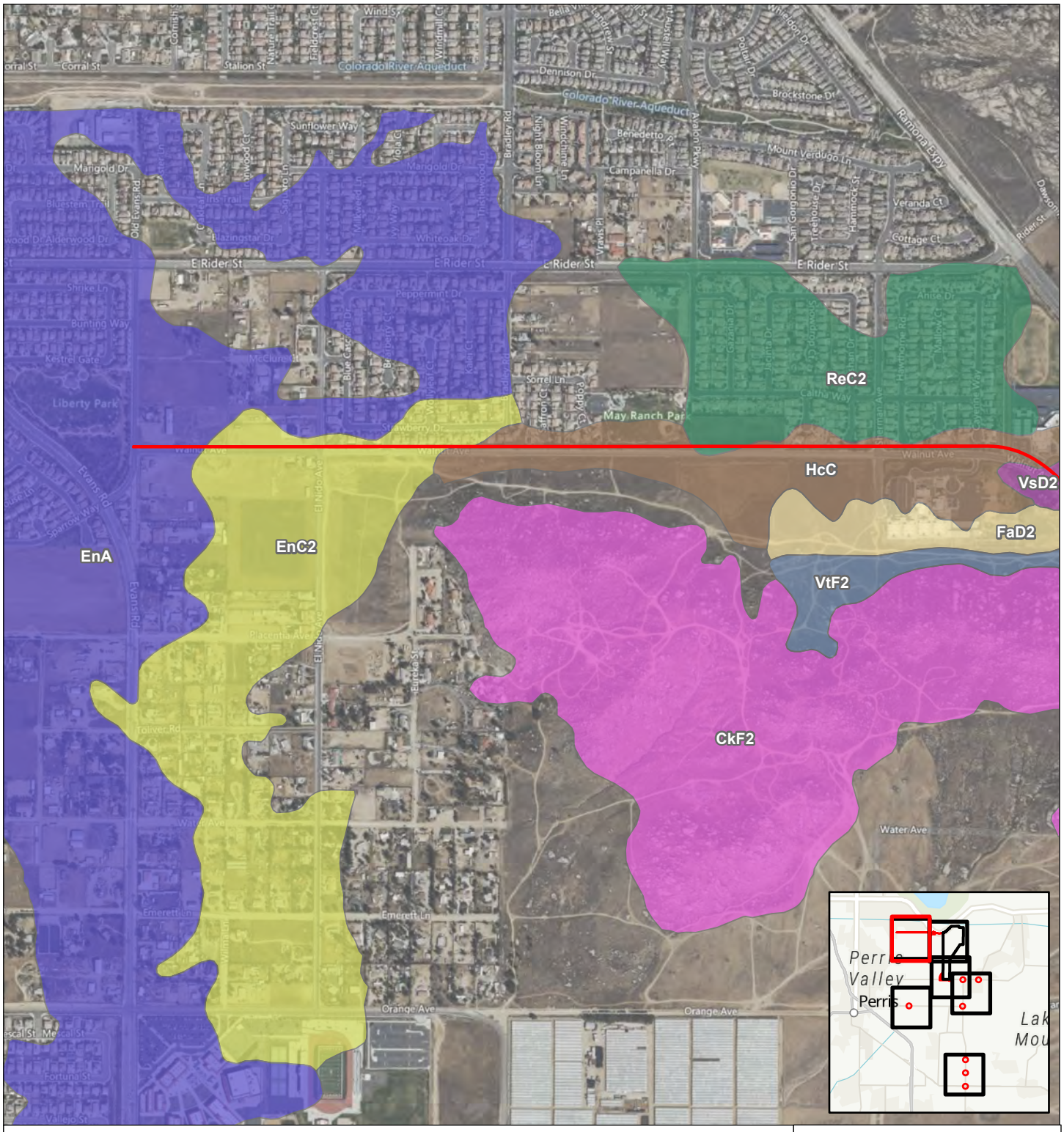
0 150 300 Feet
1 inch = 300 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 3c. Waters of the State



Offsite

SSURGO Soils

- ReC2,Ramona very fine sandy loam, 0 to 8 percent slopes, eroded
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- VsD2,Vista coarse sandy loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2,Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes

0 500 1,000 Feet

1 inch = 1,000 feet

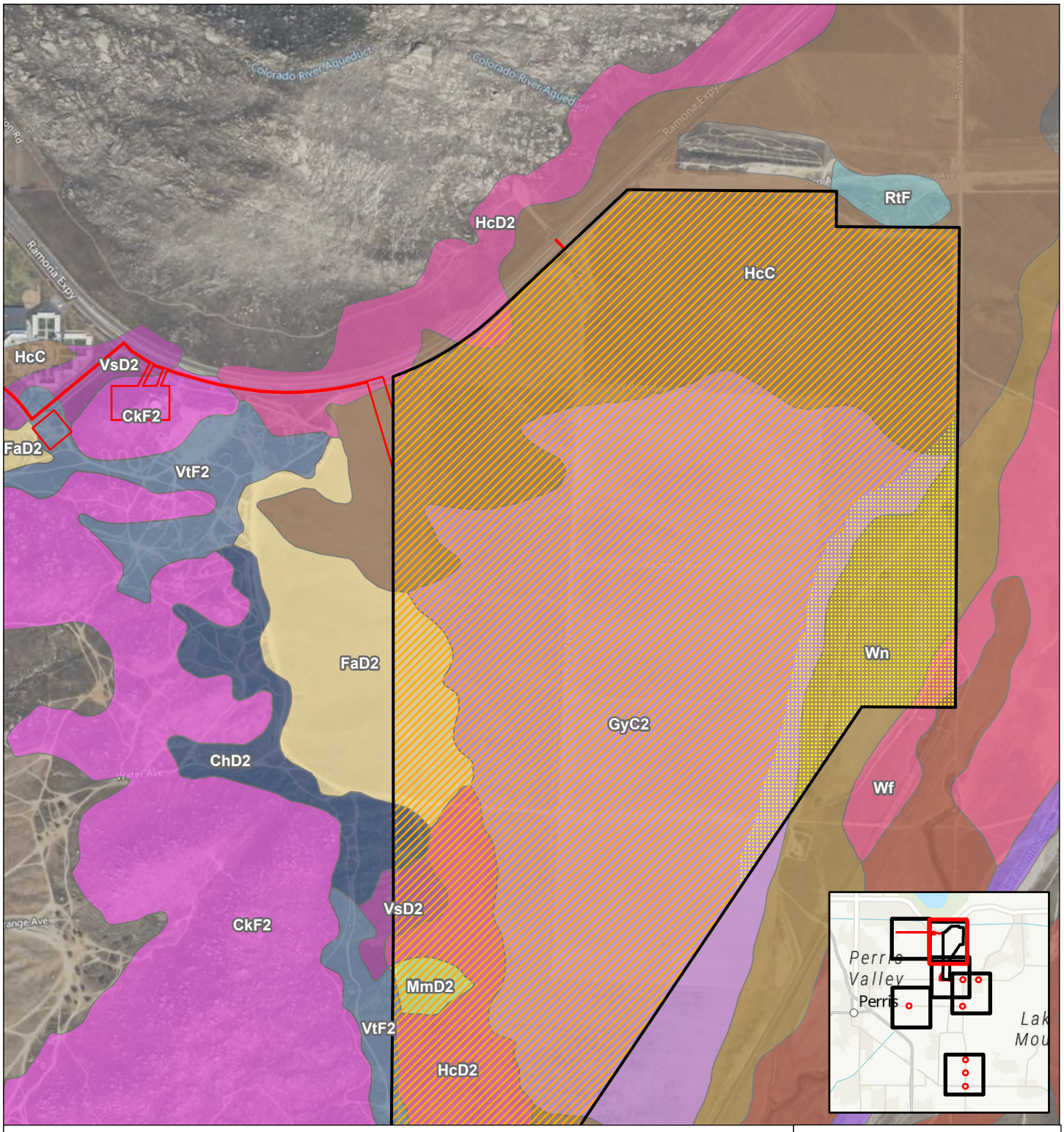
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4a. Soils Map



Project Site
Conservation Area
Project Footprint
Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- ChD2,Cohasset stony loam, moderately deep, 10 to 30 percent slopes, eroded
- RtF,Rockland
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- VsD2,Vista coarse sandy loam, 9 to 15 percent slopes, eroded
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- MmD2,Miramar coarse sandy loam, moderately steep, eroded
- HcD2,Haire clay loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- FaD2,Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

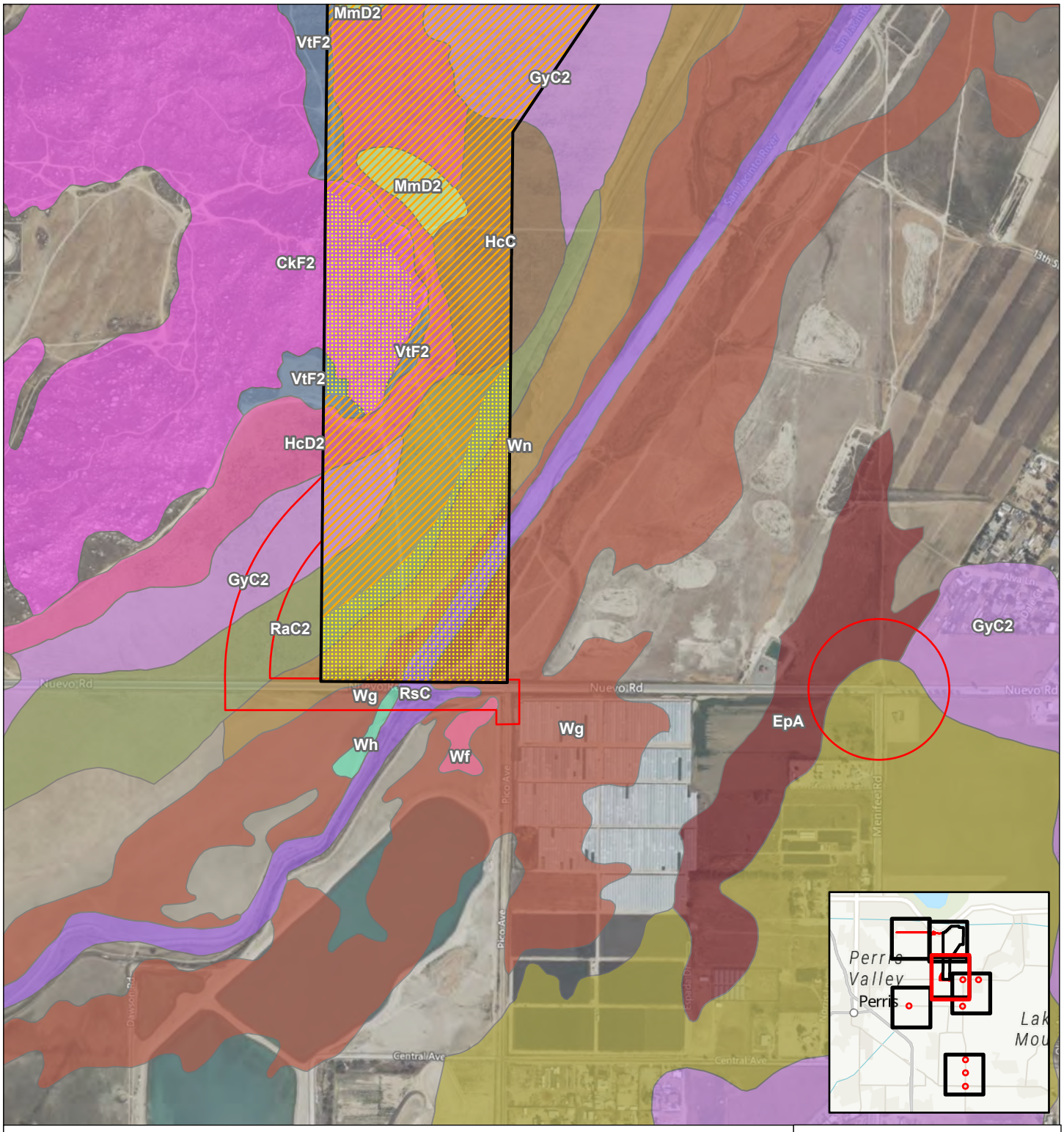
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4b. Soils Map



Project Site
Conservation Area
Project Footprint
Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- Wh,Wyo gravelly loam, moderately deep over gravel
- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- Wf,Willows clay, 0 percent slopes, frequently flooded, sodic, MLRA 17
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- MmD2,Miramar coarse sandy loam, moderately steep, eroded
- HcD2,Haire clay loam, 9 to 15 percent slopes, eroded
- CkF2,Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- VtF2,Vista rocky coarse sandy loam, 2 to 35 percent slopes, eroded
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

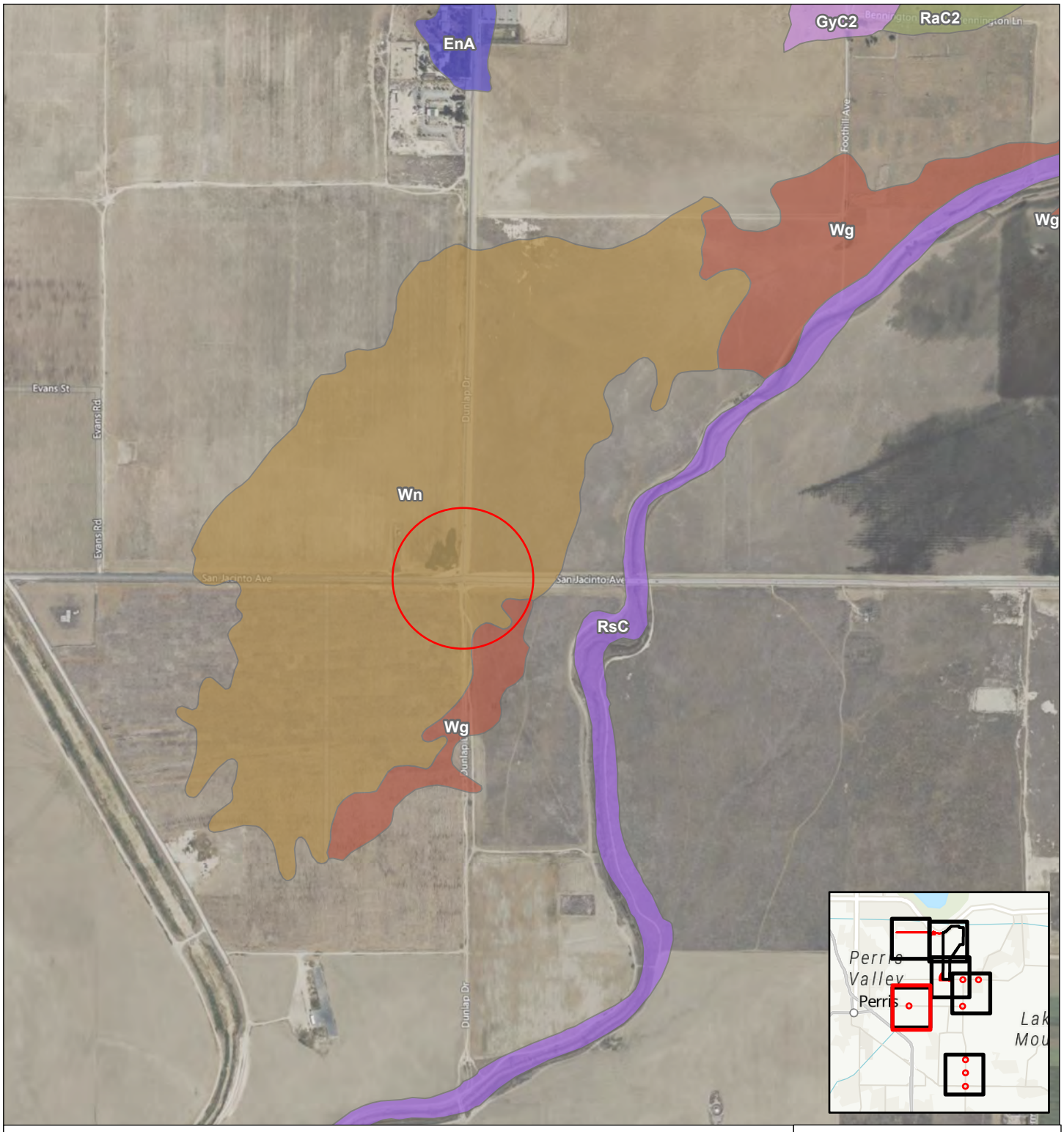
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4c. Soils Map



Offsite

SSURGO Soils

- RsC,Rincon silty clay loam, 2 to 9 percent slopes, MLRA 14
- EnA,Exeter sandy loam, 0 to 2 percent slopes
- RaC2,Rincon clay loam, 2 to 9 percent slopes, eroded
- Wn,Wyo silt loam
- Wg,Wyo loam, deep over gravel
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

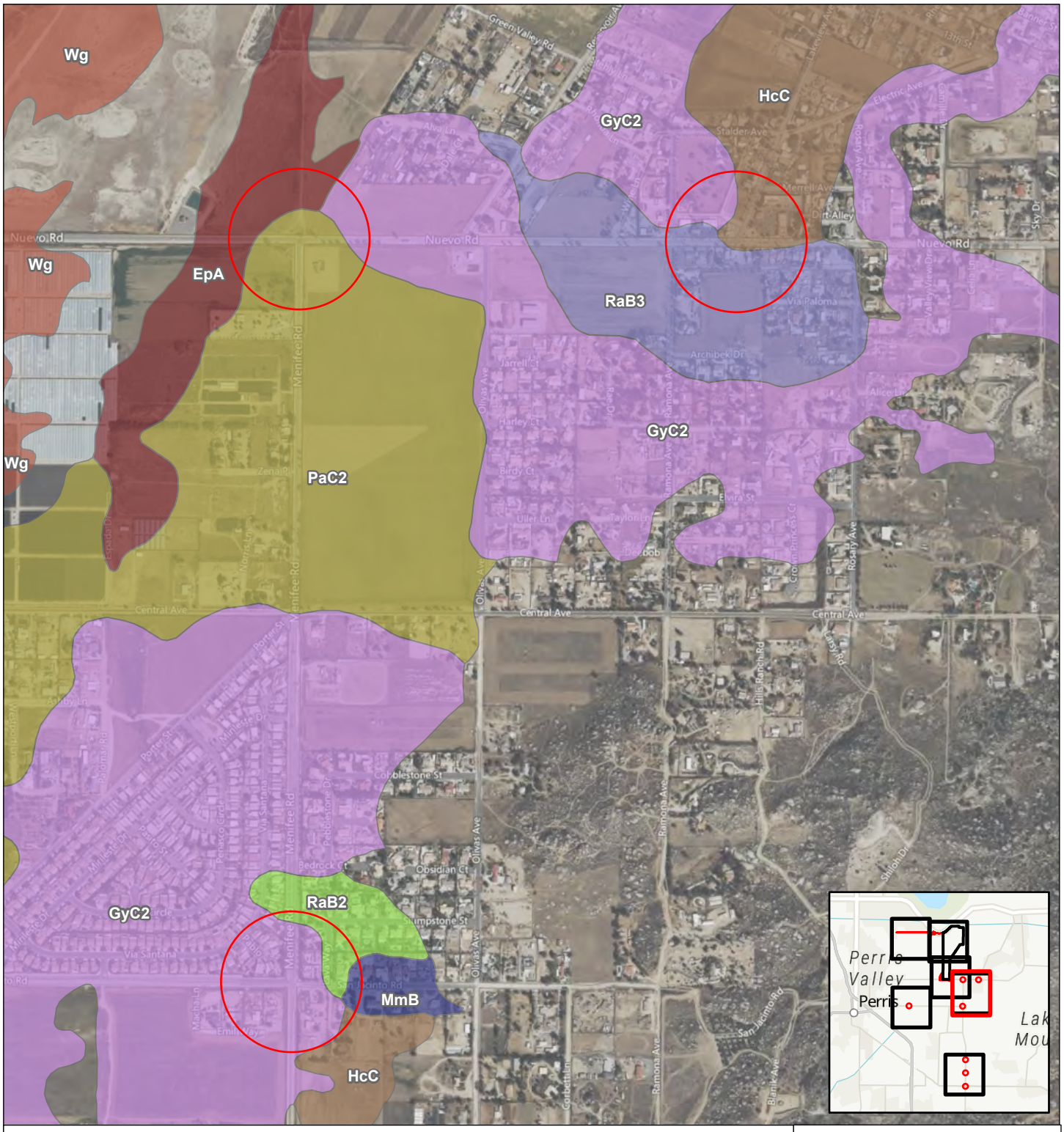
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4d. Soils Map



Offsite

SSURGO Soils

- PaC2,Pachappa fine sandy loam, 2 to 8 percent slopes, eroded
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- Wg,Wyo loam, deep over gravel
- HcC,Haire clay loam, 0 to 9 percent slopes
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

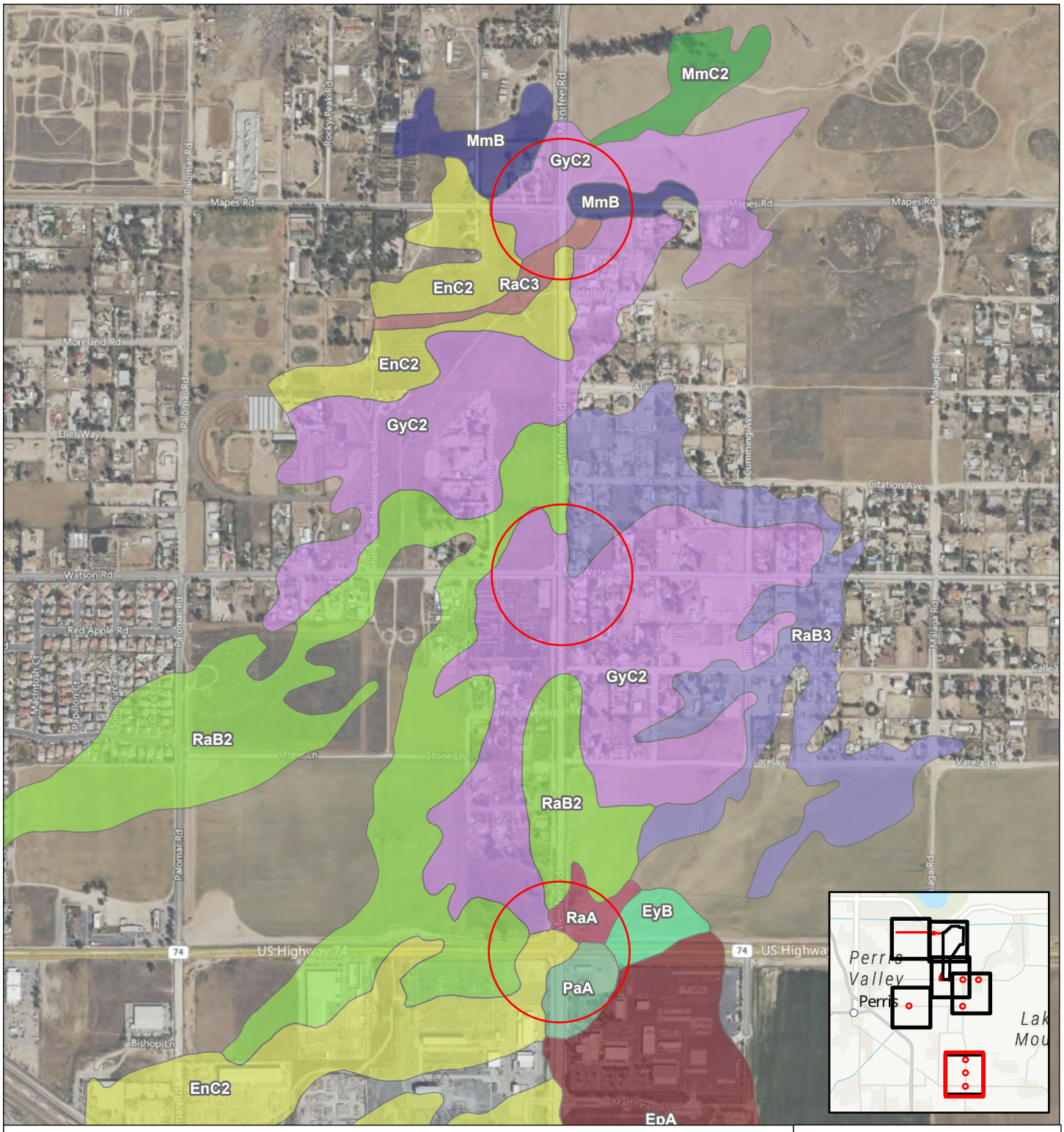
Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4e. Soils Map



Offsite

SSURGO Soils

- RaC3,Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- PaA,Pajaro fine sandy loam, 0 to 2 percent slopes
- MmC2,Miramar coarse sandy loam, sloping, eroded
- RaA,Raynor clay, 0 to 3 percent slopes
- EyB,Exeter very fine sandy loam, deep, 0 to 5 percent slopes
- EpA,Exeter sandy loam, deep, 0 to 2 percent slopes
- RaB3,Ramona sandy loam, 0 to 5 percent slopes, severely eroded
- RaB2,Ramona sandy loam, 2 to 5 percent slopes, eroded
- MmB,Monserate sandy loam, 0 to 5 percent slopes
- EnC2,Elder shaly loam, 2 to 9 percent slopes, eroded
- GyC2,Greenfield sandy loam, 2 to 8 percent slopes, eroded

0 500 1,000 Feet

1 inch = 1,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI World Topographic Map accessed Aug 2023
- NRCS Web Soil Survey accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:

NOREAS
Environmental Engineering and Science

Figure 4f. Soils Map

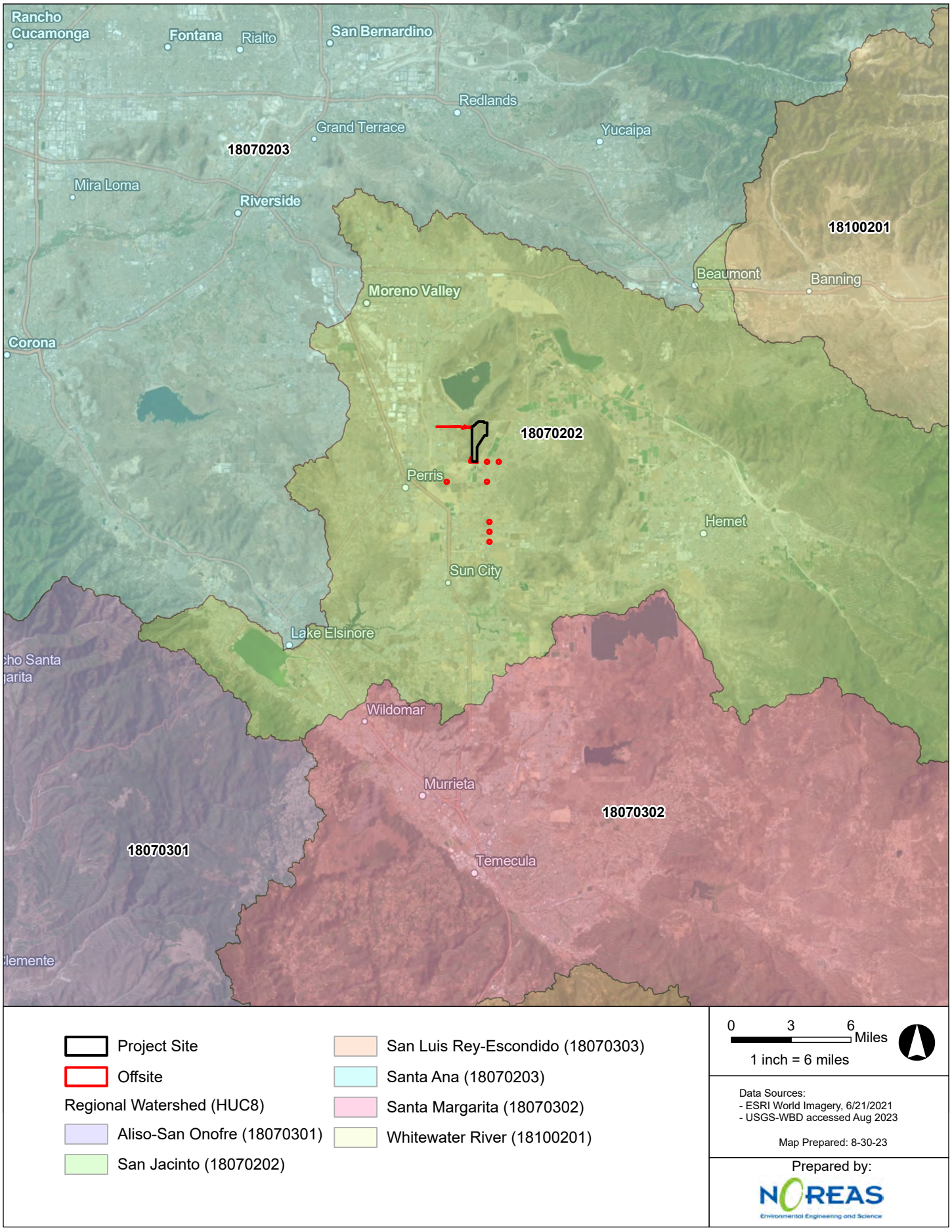
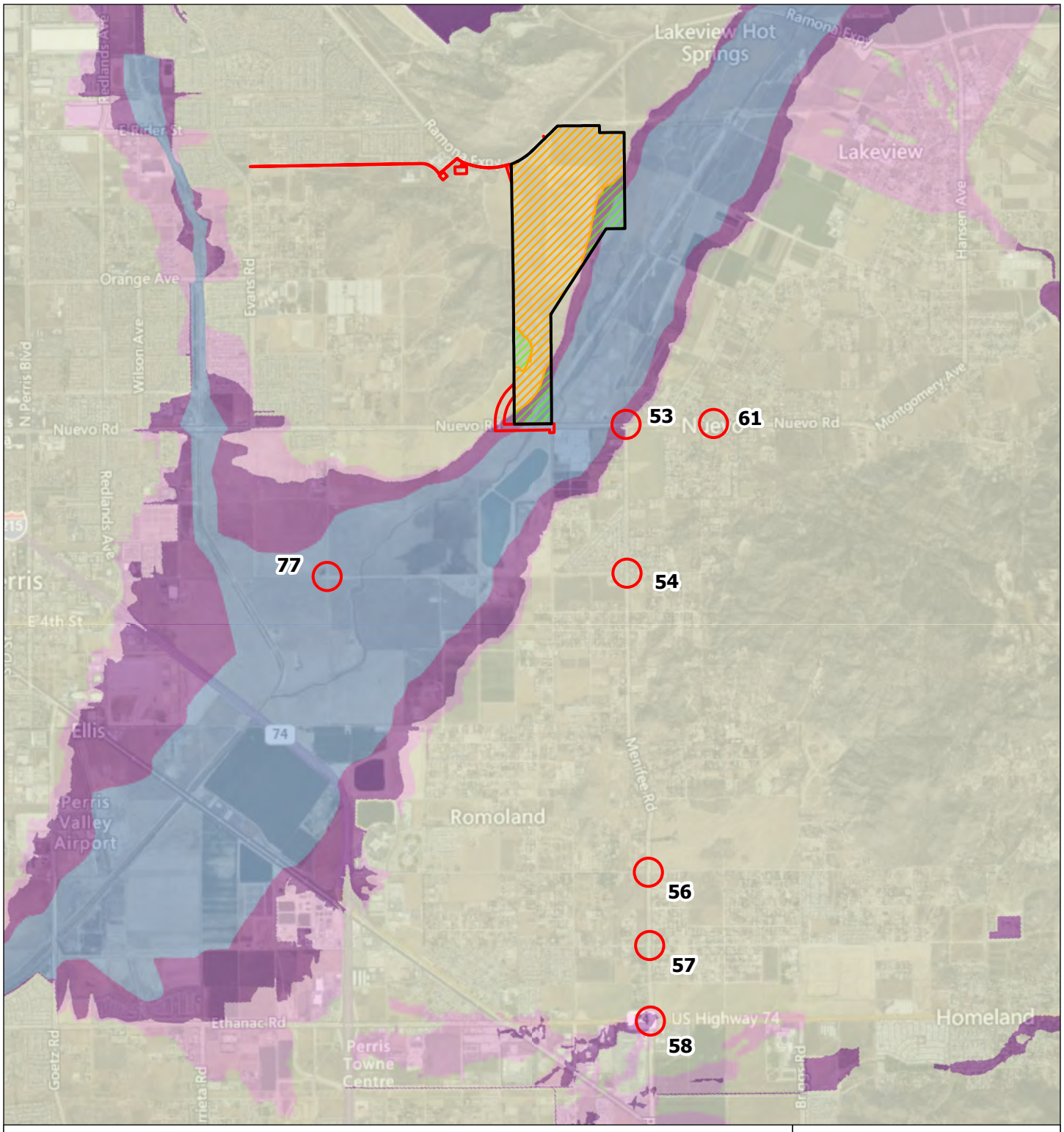


Figure 5. Regional Watershed Map



Project Site
Offsite
Project Footprint
Conservation Area

FEMA Flood Hazard Zone
1% Annual Chance Flood Hazard
Regulatory Floodway
Area of Minimal Flood Hazard
0.2% Annual Chance Flood Hazard

0 2,500 5,000 Feet

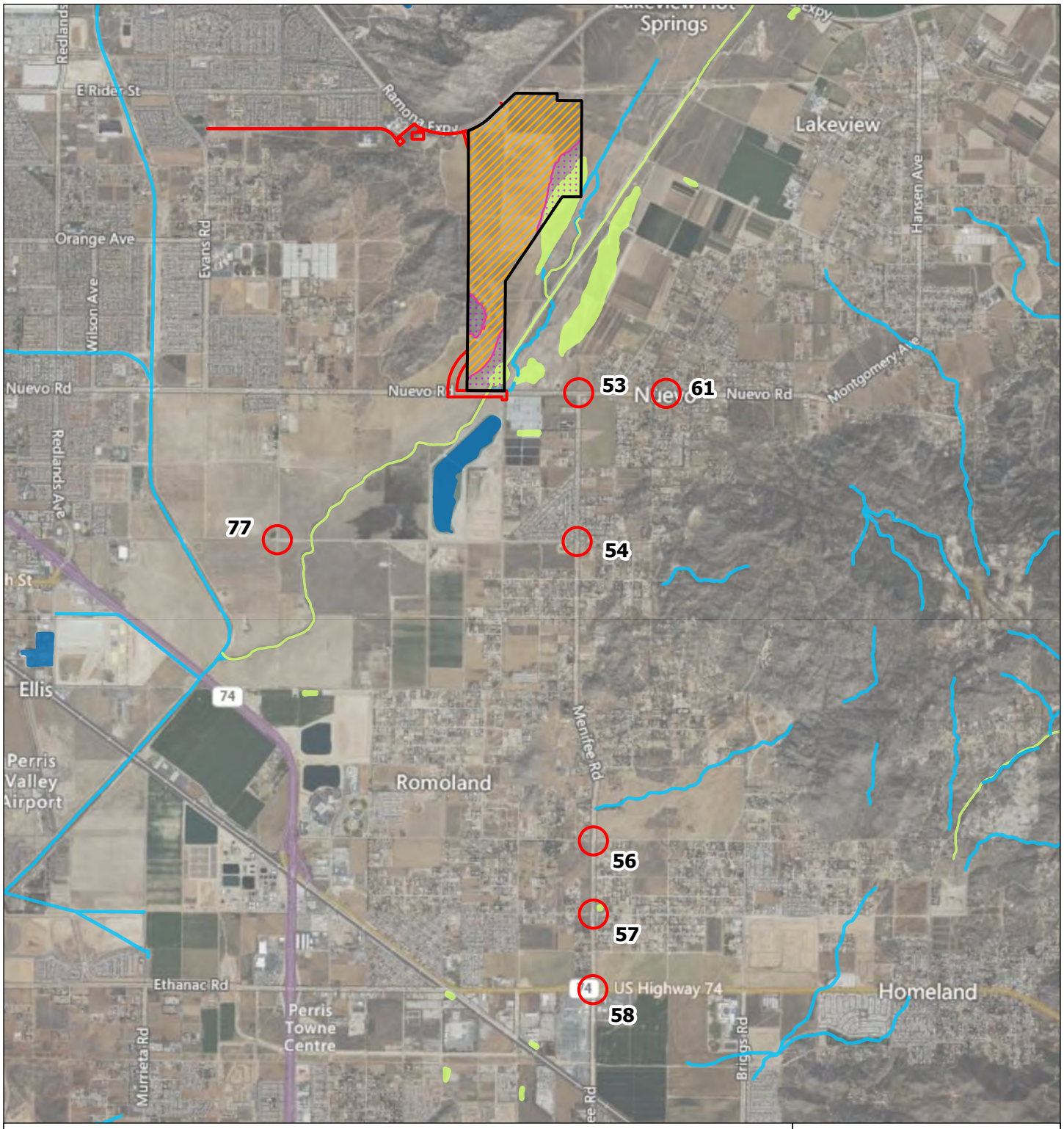
1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid and ESRI Reference layer accessed Aug 2023
- FEMA National Flood Hazard Layer accessed Aug 2023

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 6. FEMA 100-Year Flood Zone



Project Site
Offsite
Project Footprint
Conservation Area

USA Wetlands
Marsh, Swamp, Bog, Prairie
River
Lake, Reservoir

0 2,500 5,000 Feet
1 inch = 5,000 feet

Data Sources:
- Bing Maps Hybrid accessed Aug 2023
- US Fish and Wildlife Service National Wetland Inventory Publication Date Oct 2022

Map Prepared: 8-30-23

Prepared by:
NOREAS
Environmental Engineering and Science

Figure 7. National Wetland Inventory

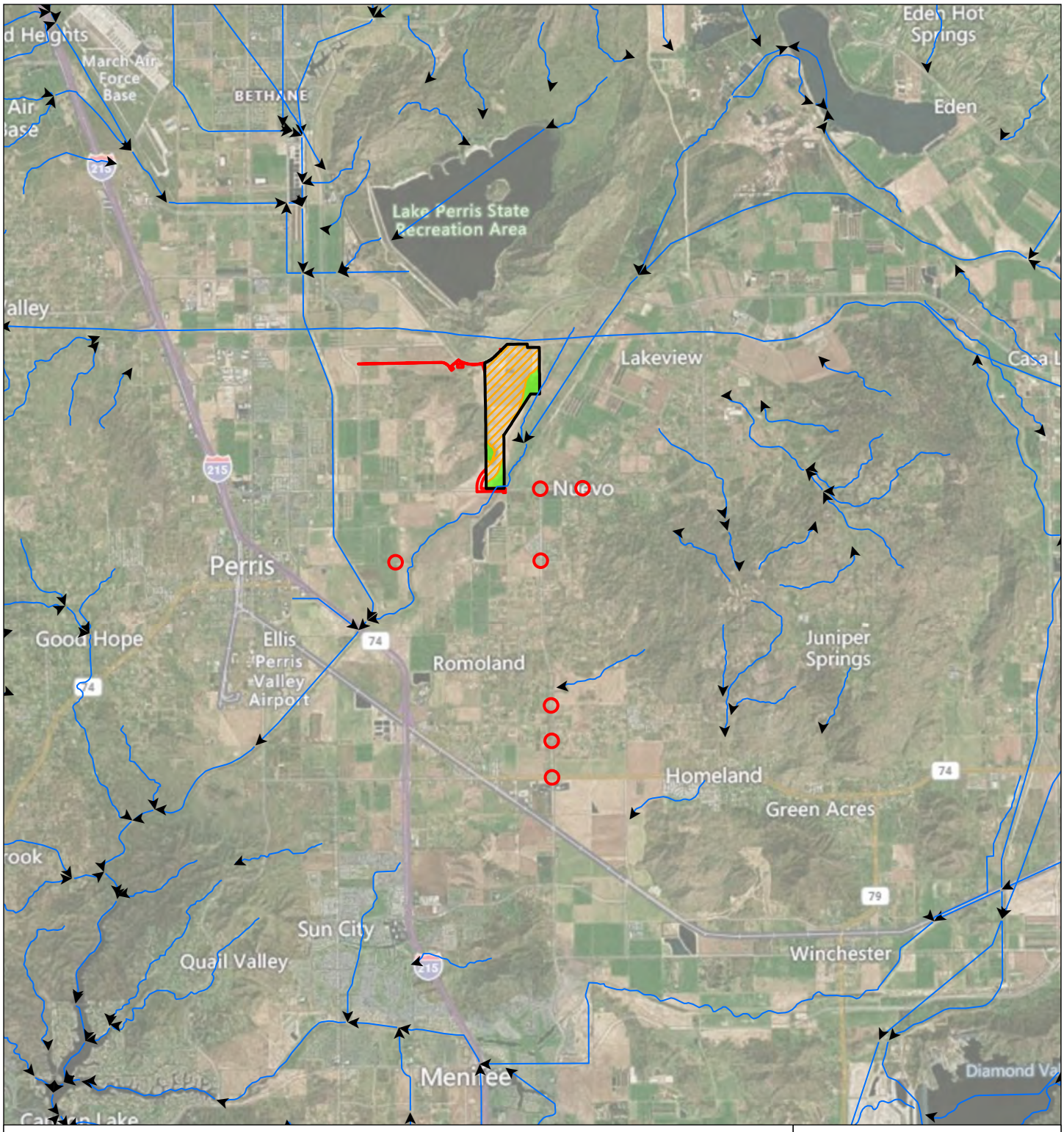


Figure 8. Surface Water Map (Regional Area)

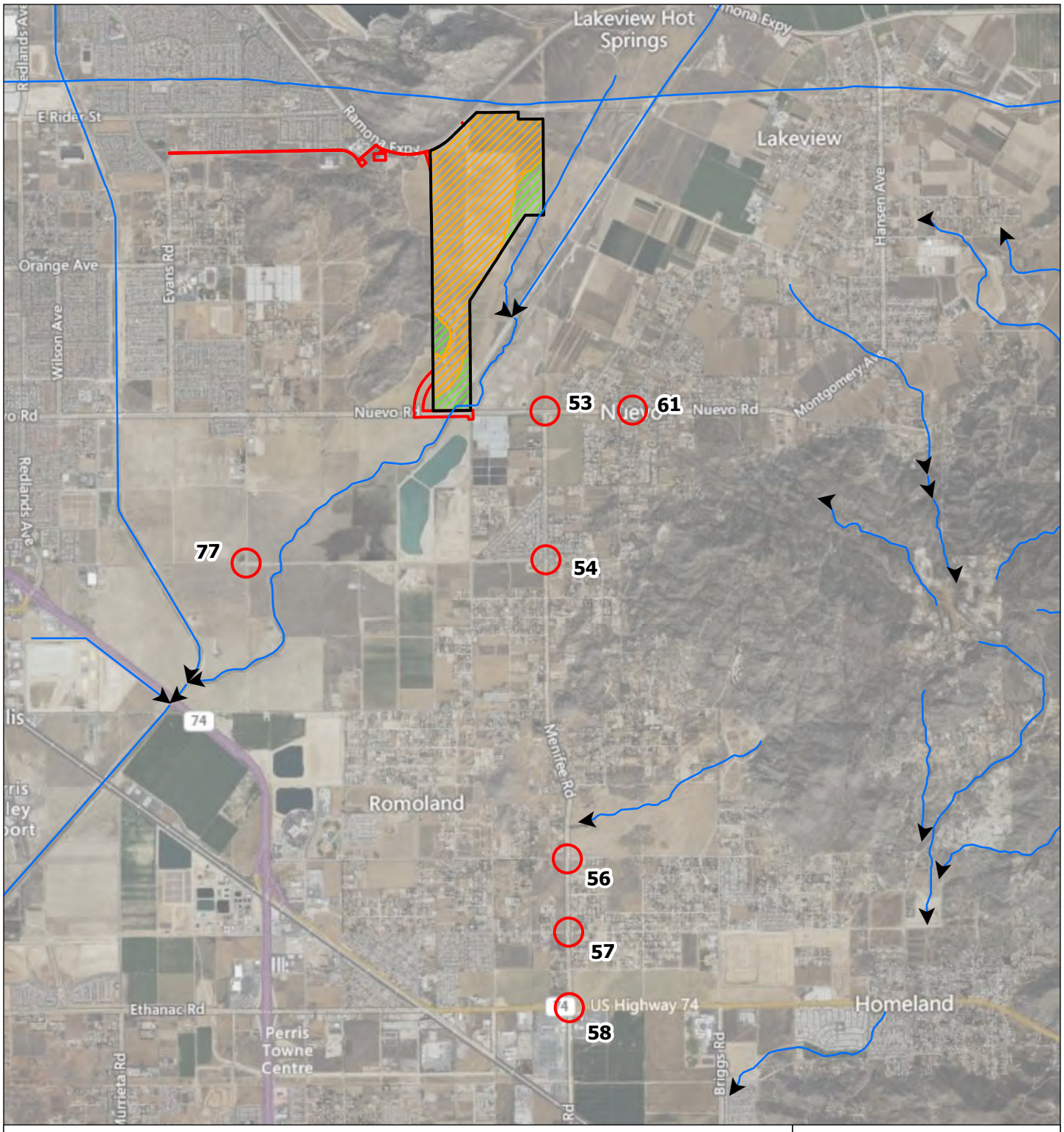


Figure 9. Surface Water Map (Local Area)

Appendix B
Photographic Log

	**Photograph 1.** Representative photo of Feature 1 - Facing Southwest.
	**Photograph 2.** Representative photo of Feature 1 - Facing Southeast.

	**Photograph 3.** Representative photo of Feature 2 - South of Nuevo Road, Facing South.
	**Photograph 4.** Representative photo of Feature 2 - North of Nuevo Road, Facing South.

	**Photograph 5.** Representative photo of Feature 3 - Facing East.
	**Photograph 6.** Representative photo of Feature 3 - Facing East.

	**Photograph 7.** Representative photo of Feature 4 - Facing West.
	**Photograph 8.** Representative photo of Feature 4 - Facing East.

Appendix F Photograph Log

	**Photograph 1:** Facing Northeast.
	**Photograph 2:** Facing East.

	**Photograph 3:** Facing Northeast.
	**Photograph 4:** Facing Southeast.

	**Photograph 5:** Facing West.
	**Photograph 6:** Facing East.

	**Photograph 7:** Facing Northeast.
	**Photograph 8:** Facing South.

	**Photograph 9:** Facing North.
	**Photograph 10:** Facing North.

Appendix G Plant Species Observed

Scientific Name	***Common Name***
Asteraceae (Aster family)	
Ambrosia dumosa	Western ragweed
Baccharis neglecta	Roosevelt weed
Baccharis sarothroides	Desert broom
*Gnaphalium spp.**	Cudweed
*Lactuca serriola **	Prickly lettuce
*Lasthenia gracilis**	Needle goldfields
*Matricaria discoidea**	Pineapple weed
*Oncosiphon piluliferum**	Stinknet
Symphyotrichum chilense	California aster
***Anacardiaceae* (Cashew family)**	
*Schinus molle**	Peruvian pepper
Arecaceae (Palm family)	
Syagrus romanzoffiana	Queen palm
*Washingtonia Robusta**	Mexican fan palm
Boraginaceae (Forget-me-not family)	
Amsinckia menziesii	Fiddleneck
Brassicaceae (Mustard family)	
*Brassica nigra**	Black mustard
*Brassica Tournefortii**	Sahara mustard
Pectocarya heterocarpa	Chuckwalla combseed
Plagiobothrys nothofulvus	Rusty popocornflower
*Sisymbrium irio **	London rocket
Cupressaceae (Cypress family)	
*Juniperus horizontalis**	Creeping juniper
Euphorbiaceae (Spurge family)	
*Croton setigerus**	Dove weed
Geraniaceae (Geranium family)	
*Erodium cicutarium**	Redstem stork's bill
Fabaceae (Pea family)	
Lupinus bicolor	Miniature lupine
*Medicago polymorpha **	Burr medic
Parkinsonia florida	Blue palo verde
Malvaceae (Mallow family)	
*Malva parviflora**	Cheeseweed
Pinaceae (Pine family)	
*Pinus sp.**	Pine
Polemoniaceae (Phlox family)	
Gilia spp.	Gilia species

Poaceae (Grass family)	
Avena fatua *	Wild oat
Bromus diandrus *	Ripgut brome
Bromus madritensis subsp. Rubens *	Red brome
Festuca arundinacea *	Tall fescue
Festuca myuros *	Annual fescue
Hordeum murinum *	Wall barley
Poa bulbosa *	Bulbous bluegrass

Nomenclature follows the Jepson Manual, Second Edition (Baldwin et al 2011).

* = naturalized, non- native plant species.

Appendix H Wildlife Species Detected

Scientific name	Common name
Birds	
Agelaius phoeniceus	Red-winged blackbird
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	Red-Tailed hawk
Cathartes aura	Turkey vulture
Corvus corax	Common Raven
Calypte anna	Anna's hummingbird
Corvus brachyrhynchos	American crow
Sturnus vulgaris	European Starling
Carpodacus mexicanus	House Finch
Charadrius vociferus	Killdeer
Hirundo rustica	Barn swallow
Sturnella neglecta	Western Meadowlark
Passerculus sandwichensis	Savanna sparrow
Petrochelidon pyrrhonota	Cliff swallow
Columba livia	Rock Pigeon
Euphagus cyanocephalus	Brewer's Blackbird
Zonotrichia leucophrys	White-crowned sparrow
Falco sparverius	American kestrel
Mimus polyglottos	Northern mockingbird
Sayornis saya	Say's phoebe
Melospiza melodia	Song sparrow
Passer domesticus	House Sparrow
Sayornis nigricans	Black phoebe
Spinus psaltria	Lesser goldfinch
Sturnella neglecta	Western meadowlark
Tyrannus vociferans	Cassin's kingbird
Quiscalus quiscula	Common Grackle
Zenaida macroura	Mourning Dove
Mammals	
Otospermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	Desert cottontail