Appendix C:
Biological Resources Supporting Information

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C.1 - Biological Resources Assessment and Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis

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Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis Salt Creek Residential Project City of Menifee, California

Assessor's Parcel Number (APN) 333-200-062

Project Applicant:
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Date: December 4, 2023
Updated: July 22, 2024

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List of Exhibits

SECTION 1: INTRODUCTION

This Biological Resources Assessment (BRA) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis was prepared by FirstCarbon Solutions (FCS) to support the proposed Salt Creek Project (proposed project) in the City of Menifee, in Riverside County, California. The purpose of this document is to (1) briefly describe the proposed project and characterize existing and potentially occurring biological resources on the project site and adjacent areas; (2) summarize relevant local, State, and federal regulations pertaining to biological resources; (3) identify and analyze requirements of the MSHCP and determine project consistency with its goals, objectives, and requirements, including an evaluation of disturbance to Public/Quasi-Public (PQP) lands within the MSHCP Conservation Area; (4) analyze potential project-related impacts on regulated biological resources in the context of the California Environmental Quality Act (CEQA); and (5) recommend appropriate measures to mitigate potential impacts on biological resources to less than significant levels according to CEQA standards.

1.1 - Project Location and Setting

The approximately 55.41-acre project site is located in the City of Menifee (City), in Riverside County (County), California (Exhibit 1). Menifee is surrounded by the City of Perris to the north, the community of Winchester to the east, the cities of Murrieta and Wildomar to the south, and the cities of Lake Elsinore and Canyon Lake to the west. Regional access to the site is provided via Interstate 215 (I-215), which bisects the City north to south. Local access to the site is provided via Simpson Road.

The site is located at the southwest corner of Briggs Road and Simpson Road on one parcel which includes Assessor's Parcel Number (APN) 333-200-062. The site is located within the *Romoland, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

1.1.1 - Environmental Setting

The project site is surrounded by Simpson Road and residential development to the north; undeveloped lands to the east; Salt Creek to the south; and residential development to the west (Exhibit 2a). The project site is vacant and undeveloped and has been used for wheat production. Undeveloped lands directly east of and adjacent to the project site have also been used for wheat production, and this area and the project site have been recently harvested and are in fallow. There is a drainage feature outside of and along the eastern boundary of the project site between the wheat fields (Exhibit 2b). This feature was evaluated through the use of binoculars and existing dirt roads as the team did not have formal permission to access off-site areas. Vegetation immediately surrounding the wheat field on the project site contains ruderal, weedy species.

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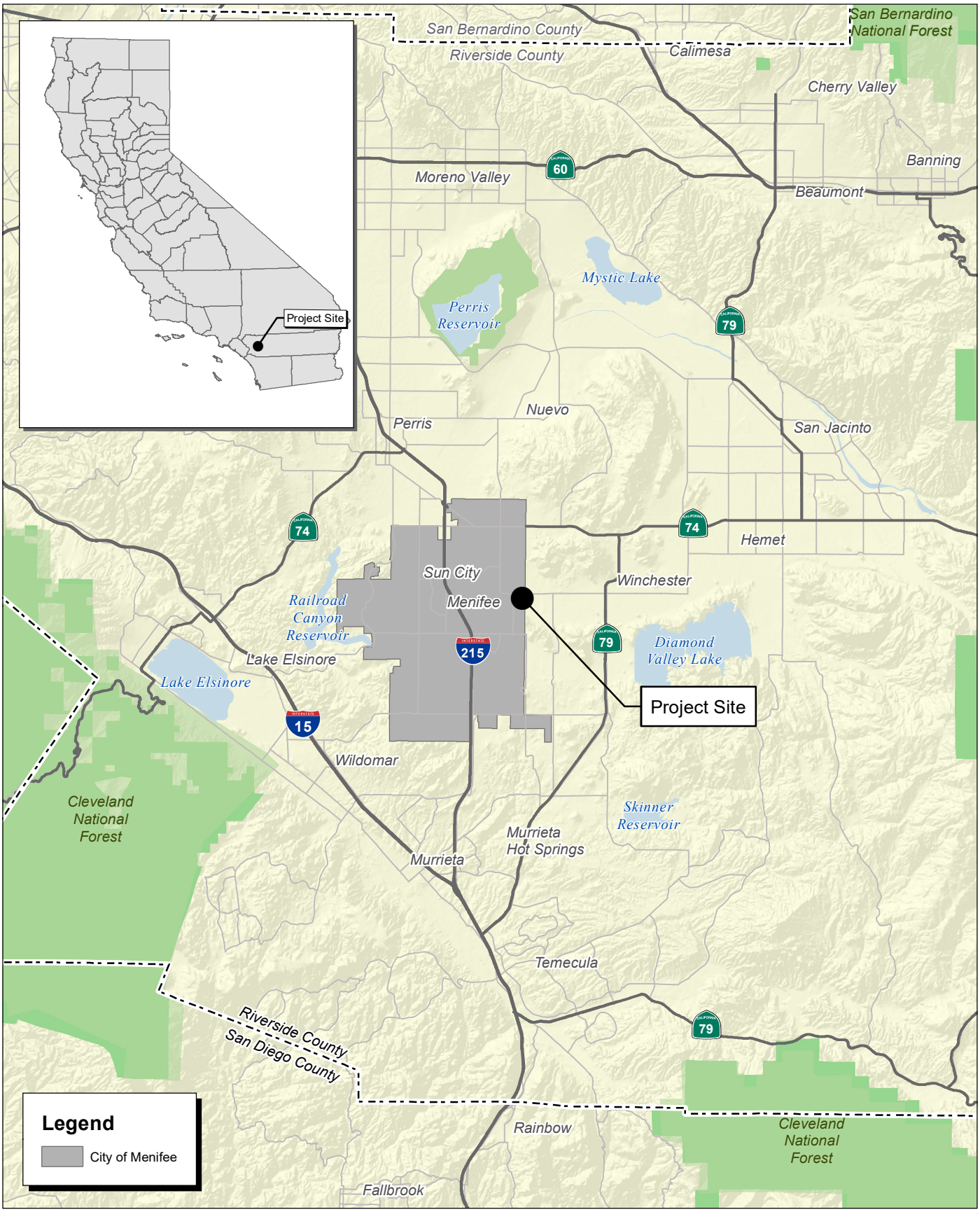

Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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MLC HOLDINGS, INC.
TRACT 38625 SALT CREEK PROJECT
BIOLOGICAL RESOURCES ASSESSMENT AND WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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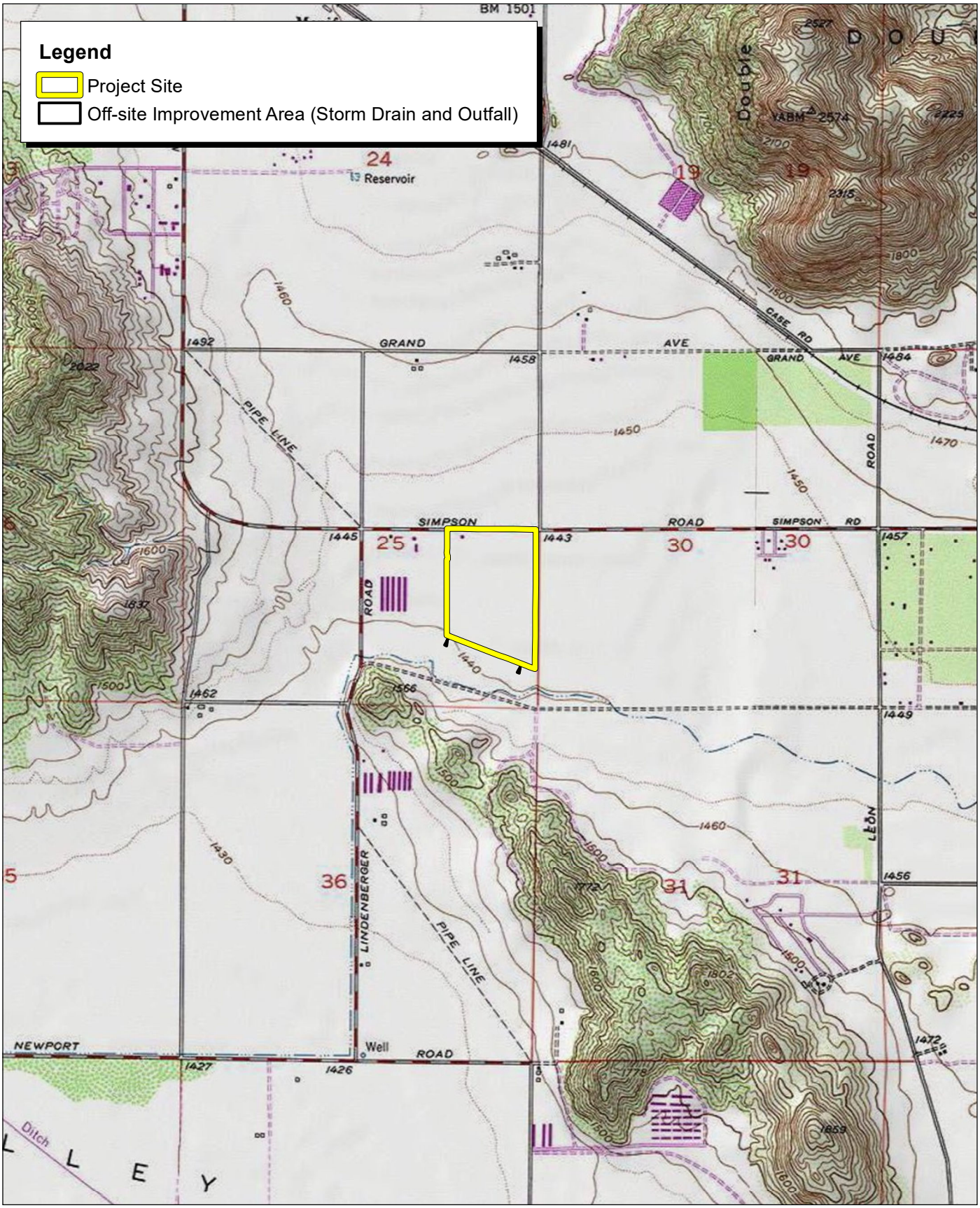

Source: USGS Romoland 7.5' Quadrangle / T05S, R03W,sec25

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Exhibit 2a
Local Vicinity Map
Topographic Base

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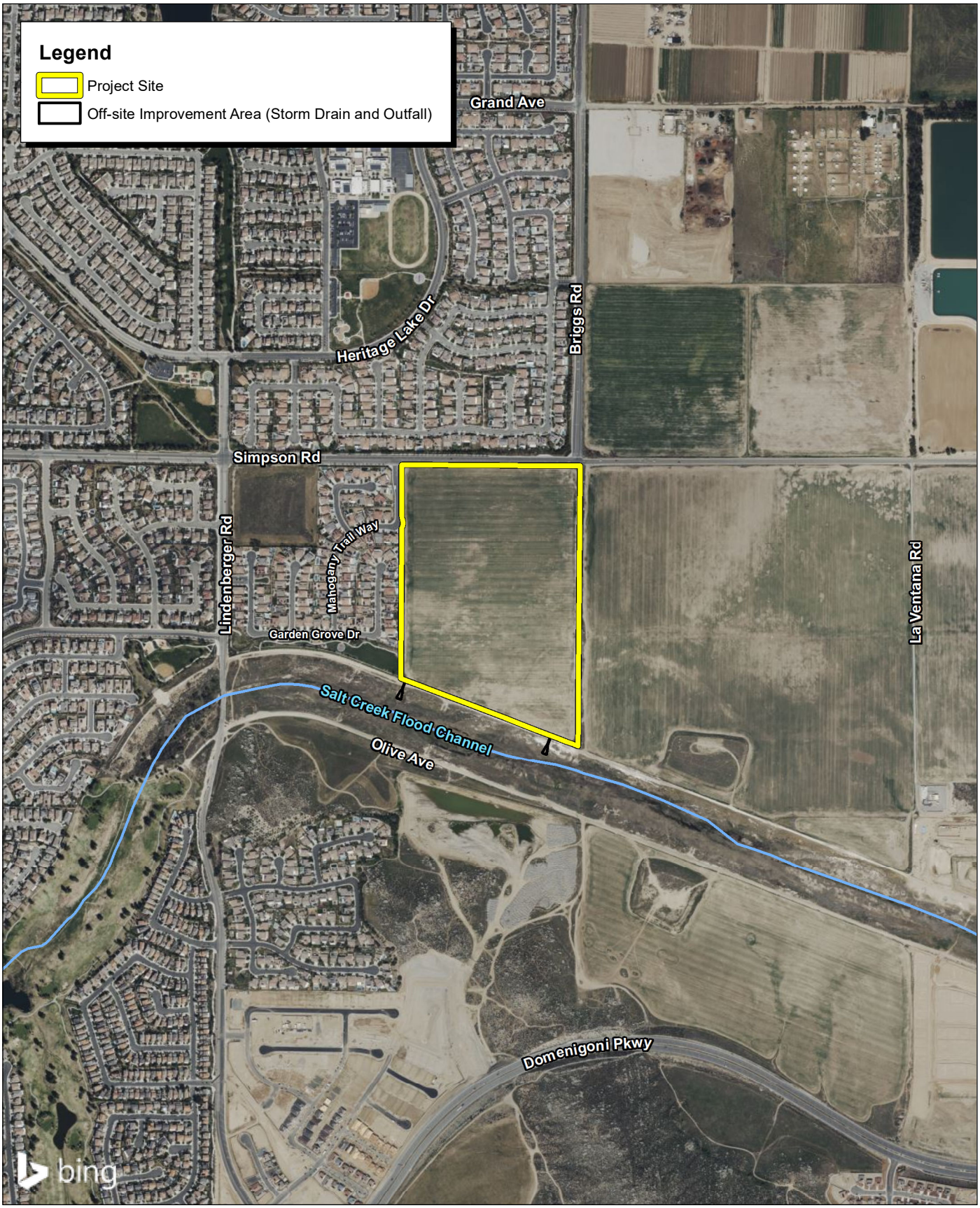

Source: Bing Aerial Imagery. County of Riverside.

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Exhibit 2b
Local Vicinity Map
Aerial Base

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1.2 - Project Description

MLC Holdings, Inc. (project applicant) proposes a residential subdivision on the 55.41-acre project site, located at the southwest corner of Briggs Road and Simpson Road in the City of Menifee. The proposed project would consist of up to 329 detached condo units (Exhibit 3). The total residential square footage including garages and porches would be 839,300 square feet.

1.2.1 - Off-site Improvements

The proposed project would also include improvements on Briggs Road south of Simpson Road, along the eastern property line, with the applicant constructing Briggs Road to its ultimate half-width section. The proposed extension would also include frontage improvements along the western edge of Briggs Road, including curb, gutter, sidewalk, and landscaping.

The proposed project would also include the construction of two 48-inch storm drain outfalls along the northern bank of Salt Creek Channel, which would discharge cleansed flows from the development water quality basins into the creek.

1.2.2 - Other Site Improvements and Amenities

The proposed project would include two water quality basins, one along Briggs Road on the eastern portion of the site and one along the western portion of the project site. Future runoff from the project site would flow downstream to adjacent water features along the Salt Creek. The project site and adjacent biological resources, including downstream water bodies, are considered a part of the overall Project Study Area (Study Area). Future flows entering the Study Area would be captured and treated within two bioretention basins located north of the Salt Creek flood prone area. The temporary capture, treatment, and release of flows may indirectly affect riverine and/or sensitive resources downstream of the Study Area through the introduction of invasive species. To avoid any impacts to downstream MSHCP riparian/riverine resources, the bioretention basins would be vegetated with native and locally common plant species such as field sedge (*Carex praegracilis*), wild rye (*Elymus triticoides*), California melic (*Melica imperfecta*), common rush (*Juncus effusus*), or similar native plants.

1.2.3 - Site Access and Circulation

Vehicular Access and Circulation

Vehicular access to the project site would be provided via three access points connecting to the internal circulation system. Vehicular access would include one access point on Simpson Avenue and two access points on Briggs Road. On-site circulation would consist of several new two-lane, two-way roadways throughout the project site, sidewalks, and trails. The proposed project would include on-street parking available on all public streets in the tract, in addition to private residential parking within garages.

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Source: Kimley-Horn, 07/12/2023.

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Exhibit 3
Site Plan

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1.2.4 - Parks and Open Space

There would be a total of 9.27 acres of open space provided on the project site, including a 4.91-acre recreational park along the southern boundary of the project site adjacent to the Salt Creek Channel. The proposed park would provide future residents with walking trails. The park trails would be dispersed throughout the park and would connect to the existing Olive Avenue trail network, which would provide access to the Mahogany Creek Park and Trailway west of the project site.

1.2.5 - Landscaping

The project site would have a total of 11.57 acres of landscaping and 15.07 acres of paved surfaces, not including sidewalks or paving within the paseo/parks or driveways. The 30 percent open space requirement would be met through the paseos/parks, yards, and the public park. The proposed project would be landscaped with drought-tolerant plants and shade trees.

1.2.6 - Lighting

Existing outdoor lighting at and near the project site is associated with commercial/retail, public/institutional, and street lighting typical of suburban areas. The proposed project would generate lighting from two primary sources: lighting from building interiors that would pass through windows, and lighting from exterior sources (e.g., street lighting, vehicles, security lighting, and landscape lighting). Lighting associated with the proposed project would not be directed toward adjacent properties across Simpson Road or toward the residential homes adjacent to the west.

1.2.7 - Storm Drainage

The project proposes to construct a storm drain system with catch basins for runoff collection. Discharge from the project site would collect and detain runoff from the northern boundary of the site, through the center of the site and would flow to two bioretention basins with a modular wetland system (MWS) for water quality treatment. The bioretention basins contain an overflow inlet to discharge excess flows from the site into the Salt Creek Channel. Additionally, a total of 1.47-acre vegetated open space area on the eastern and western portion of the site would serve as a bioretention area for runoff.

The proposed project would also include the construction of two 48-inch storm drain outfalls along the northern bank of Salt Creek Channel, which would discharge cleansed flows from the development water quality basins into the creek.

1.2.8 - Construction and Phasing

The proposed project would import 343,000 cubic yards of soil during grading. Construction is anticipated to begin in January 2025, with an anticipated project completion date of May 2029.

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Endangered Species Act. Section 9 of the Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

A proposed project may acquire permission to "take" listed and candidate species through implementation of sections of the Endangered Species Act. If the proposed project is funded by, authorized by, or otherwise involves a federal agency, Section 7 requires those agencies to consult with the USFWS to ensure that the project does not jeopardize the future existence of any listed species. The consultation results in either a concurrence letter from USFWS stating that the proposed action does not jeopardize the species, or a Biological Opinion issued by USFWS that includes a defined limit of "take" of listed species that is authorized for the action. When there is no federal nexus to pursue Section 7 permissions, USFWS may authorize "take" of listed species through Section 10, which allows private landowners, corporations, Native American Tribes, states, cities, and counties to implement projects that could affect listed species. Under this process, the project proponent seeks "take" permissions through completing and submitting for approval a Habitat Conservation Plan (HCP) approved by the USFWS. The HCP defines the project and potential for "take" of species, and outlines measures to mitigate or compensate for impacts that would occur during implementation of the project. Often a draft Implementing Agreement (IA) is included with the permit application for larger HCPs, such as a regional plan. An IA is a contract that describes the roles and responsibilities of the permit holder, the federal wildlife agency, and any other parties responsible for implementing the HCP.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

2.1.3 - Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

2.1.4 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions. Normally, USACE requires an individual permit for an activity that will affect an area equal to or greater than 0.5 acre of waters of the United States. A project that results in impacts to less than 0.5 acre of waters of the United States can normally be conducted pursuant to one of the several nationwide permits if it is consistent with the standard permit terms and conditions.

Section 401

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following CEQA Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, natural community conservation plan, or other approved local, regional, or State Habitat Conservation Plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081). Under CESA, the California Fish and Game Commission may authorize taking of candidate species, and the CDFW may recommend that the Commission authorize (or not authorize) the taking of listed or candidate species (FGC § 2084).

2.2.3 - California Fish and Game Code

Rare, Threatened, and Endangered Species

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA, and Fish and Game Code Section 2081 established an incidental take permit program for State-listed species. The CDFW maintains a list of "candidate species" which it formally notices as being under review for addition to the list of endangered or threatened species.

Fully Protected Species

Fish and Game Code Sections 3500—5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Species of Special Concern

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do

not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Other Sensitive Species

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Native Bird Protection

Sections 3503, 3503.5, and 3513 protect native birds. Under Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any native bird. Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Under Fish and Game Code Section 3513, it is unlawful to take or possess any native, migratory bird as designated in the MBTA except as provided by rules and provisions of the MBTA. Mitigation for avoidance of impacts to nesting birds is typically included in CEQA and other permitting documents to ensure project compliance with these Fish and Game Code Sections.

Native Plant Protection Act

The Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners to take listed plant species under specified circumstances, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

Lake or Streambed Alteration

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that "may 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 debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

Natural Community Conservation Planning Act

Section 2800 of the California Fish and Game Code establishes the Natural Community Conservation Planning Act (NCCP Act), which allows the CDFW to authorize Natural Community Conservation Plans (NCCPs) to allow "take" of species listed under CESA and other sensitive species and vegetation communities on a regional scale. The primary objective of the NCCP Act is to conserve covered natural communities and species at the ecosystem scale while accommodating compatible land uses, or covered activities. NCCPs must provide conservation and management of natural communities and species in perpetuity within the area covered by permits. Each NCCP provides measures necessary to conserve and manage sensitive biological resources, including natural vegetation communities and the plant and wildlife species they support, within a reserve system, while also allowing compatible developments and other projects to "take" species and habitats under special conditions outside of areas targeted for conservation. NCCPs are different from HCPs because the NCCP Act requires that conservation actions improve the long-term conservation of species, whereas HCPs typically only require avoidance of adverse impacts to species. Additionally, while HCPs can be implemented at a project or regional scale, an NCCP must be applied across regional scales to promote the long-term recovery of species, protection of habitats and natural communities, and maintenance of species diversity at the landscape level.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)).

2.2.5 - California Oak Woodlands Conservation Act (AB 242)

The State of California enacted the California Oak Woodlands Conservation Act in 2001. It established requirements for the preservation and protection of oak woodlands and trees, and allocated funding to be managed by the Wildlife Conservation Board that would support a variety of ways to preserve oak woodlands throughout the State. In order to qualify to use these funds, counties were required to adopt an oak woodland conservation management plan. In 2004, SB 1334 (Public Resources Code [PRC] § 21083.4) expanded this preservation effort by requiring that a county, "in determining whether CEQA requires an environmental impact report, negative declaration, or mitigated negative declaration, to determine whether a project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment, and would require the county, if it determines there may be a significant effect to oak woodlands, to require one or more of specified mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands."

2.2.6 - California Native Plant Society Rare Plant Rankings

The CNPS maintains a rank of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the

Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed
- **Rank 4:** Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations.[1]

2.3 - Regional and Local

2.3.1 - Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP serves as a multijurisdictional HCP pursuant to Section 10(a)(1)(B) of the Endangered Species Act and a NCCP pursuant to Fish and Game Code Section 2081.1 that focuses on the conservation of species and habitats in western Riverside County. The MSHCP allows permittees to obtain take of threatened, endangered, and rare plant and animal species covered by the MSHCP. Regulation of take of species is authorized by the USFWS and the CDFW for lawful actions (e.g., public and private projects) in exchange for the assembly and management of a conservation reserve system. The MSHCP covers take of 146 species in the plan area, including 32 that are State and/or federally listed.

The MSHCP area encompasses approximately 1.26 million acres and includes all unincorporated land in Riverside County west of the crest of the San Jacinto Mountains to the Orange County line, inclusive of the jurisdictional areas of the cities of Eastvale, Jurupa Valley, Wildomar, Menifee, San Jacinto, Hemet, Perris, Calimesa, Beaumont, Banning, Moreno Valley, Riverside, Corona, Norco, Canyon Lake, Lake Elsinore, Murrieta, and Temecula. Conservation areas that comprise the reserve system will be assembled from Criteria Area cells that consist of 0.75-section cells of approximately 160 acres, each with specific criteria for conservation.

The Conservation Areas that comprise the reserve system will total 500,000 acres when complete, which is projected by 2028. Of the 500,000 acres targeted for conservation, 347,000 were in existing open spaces in PQP Lands at the time the MSHCP was adopted in 2003. These lands are under ownership or management of government agencies and their development is not likely. The County and City permittees are responsible for assembling the remaining 153,000 acres in the reserve system by 2028 through implementing the MSHCP during the development and entitlement process.

[1] California Native Plant Society (CNPS). 2020. Considerations for Including CRPR 4 Plant Taxa in CEQA Biological Resource Impact Analysis. Sacramento, CA. January 21, 2020.

SECTION 3: METHODS

3.1 - Literature and Database Reviews

This literature review provides a baseline from which to evaluate potential project impacts on biological resources within the project site and the surrounding area.

3.1.1 - Existing Documentation

As part of the literature review, an FCS Biologist examined existing environmental documentation for the project site and vicinity. This documentation included literature pertaining to the MSHCP Conservation Area, habitat requirements of special-status species with the potential to occur in the project vicinity, federal register listings, protocols, and species data provided by the MSHCP, USFWS, and CDFW.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current USGS 7.5-minute topographic quadrangle map(s)and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.[2] Information obtained from the topographic maps included elevation, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking, and Environmental Results System (WATERS).[3] Aerial photographs provided a perspective of the current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors. The Regional Conservation Authority (RCA) website was also reviewed to identify MSHCP wildlife and plant species survey areas and the limits of Criteria Cells, Cell Groups, and the MSHCP Conservation Area.

3.1.3 - Soil Surveys

FCS Biologists also reviewed United States Department of Agriculture (USDA) soil surveys to establish if soil conditions in the project site are suitable for any special-status plant species.[4] These soil profiles include soil series with similar thickness, arrangement, and other important characteristics. The soil series consist of separate soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. To determine the existing soil mapping units within the project site and to establish if soil conditions are suitable for supporting special-status species populations, an FCS Biologist reviewed pertinent USDA soil survey data.

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[2] United States Geological Survey (USGS). 2023. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed May 25, 2023.

[3] United States Environmental Protection Agency (EPA). 2023. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed May 25, 2023.

[4] Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed May 25, 2023.

3.1.4 - Special-status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the USFWS Information for Planning and Consultation (IPaC) database,[5] the CNDDB, and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California.[6,7] The CNDDB search focused on species records within 5 and 10 miles of the project site. The CNPSEI search focused on records from the *Romoland, California* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles. The CNDDB Biogeographic Information and Observation System (BIOS 6) was used to determine distances between species occurrences and the project site.[8]

The potential for occurrence on the project site was assessed for each of the special-status species identified in the database searches. The potential for occurrence was assessed based on conditions on the project site, habitat requirements of special-status species, and number of recent (< 20 years old) occurrences in the project vicinity.

3.1.5 - Trees and Native Vegetation

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed applicable City and County ordinances pertaining to tree and native vegetation preservation and protection and ascertained whether measures or permits are required to remove, replace, or transplant protected trees or native vegetation.

3.1.6 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed EPA WATERS and aerial photography to identify potential natural drainage features and water bodies.[9] In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flow and be considered potentially subject to State and federal regulatory authority as waters of the United States and/or State. A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities to aid in determining whether a formal delineation of waters of the United States or State is necessary. A more detailed assessment of potential jurisdictional drainage features and waters on the project site was conducted by South Environmental and included under separate cover as Appendix E.

[5] United States Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed May 25, 2023.

[6] California Department of Fish and Wildlife (CDFW). 2023. California Natural Diversity Database (CNDDB) RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed May 25, 2023.

[7] California Native Plant Society (CNPS). 2023. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed May 25, 2023.

[8] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.

[9] United States Environmental Protection Agency (EPA). 2023. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed May 25, 2023.

3.1.7 - MSHCP Information Map

As part of the MSHCP Consistency Analysis, an FCS Biologist reviewed the RCA MSHCP Information Map[10] to assess species survey and conservation requirements for the parcels that comprise the project site.

3.2 - Field Surveys

3.2.1 - Survey Personnel

A general biological survey and vegetation community mapping of the project site was performed on May 18, 2023, by FCS Principal Biologist Michael Tuma, PhD, CWB, RPA (brief resume presented in Appendix A). Additional assessments of the site and areas for proposed outfalls were conducted on September 18, 2023, by Dr. Tuma and representatives of South Environmental in September 2023.

3.2.2 - General Biological Survey

The objective of the general biological survey was to ascertain general site conditions and identify whether existing vegetation communities provide suitable habitat for special-status plant or wildlife species. During this survey, the Biologist walked and drove the project site and characterized and mapped vegetation communities, identified and recorded plants and wildlife observed on-site, and recorded evidence of wildlife habitats, including wildlife corridors, nests, dens, or burrows. Special-status or unusual biological resources identified during the literature review were ground-truthed during the field survey for mapping accuracy. Special attention was paid to sensitive habitats and areas potentially supporting special-status floral and faunal species.

Vegetation Communities and Plants

Common plant species observed during the general biological survey were identified by visual characteristics and morphology in the field and recorded in a field notebook and on field maps. Uncommon and fewer familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.[11,12] Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.[13] Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation community types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.0. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat

[10] Regional Conservation Authority (RCA). 2023. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed May 25, 2023.

[11] Jepson Flora Project (eds.) 2023. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/. Accessed May 25, 2023.

[12] Calflora. 2020. Calflora: Information on California plants for education, research, and conservation. Website: http://www.calflora.org/. Accessed May 25, 2023.

[13] Baldwin, B., et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).

types are based on the Manual of California Vegetation (MCV) and cross-referenced with the CDFW Natural Communities List.[14,15]

Wildlife

Wildlife species detected during the general biological survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to have the potential to occur within the project site.[16] Appropriate field guides were used to assist in species identification during surveys, such as Peterson, Reid, and Stebbins.[17,18,19] Online resources such as eBird and California Herps were also consulted as necessary. [20,21]

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated "islands" of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the general biological survey. The scope of the biological resource assessment did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Rather, the focus of this study was to determine whether a change in land use at the project site could have significant impacts on the regional movement of wildlife. Conclusions are based on the information compiled during the literature review, including aerial photographs, USGS topographic maps, and resource maps for the vicinity; the field survey; and professional experience with the desired topography, habitat, and resource requirements of the special-status species potentially utilizing the project site and vicinity.

[14] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation. Sacramento: California Native Plant Society.
[15] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. July 5, 2022. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed May 25, 2023.
[16] California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed May 25, 2023.
[17] Peterson, T.R. 2010. A Field Guide to Birds of Western North America. Boston: Houghton Mifflin Harcourt.
[18] Reid, F. 2006. A Field Guide to Mammals of North America. Boston: Houghton Mifflin Harcourt.
[19] Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Boston: Houghton Mifflin Harcourt.
[20] eBird. 2023. Online bird occurrence database. Website: http://ebird.org/content/ebird/. Accessed May 25, 2023.
[21] California Herps. 2023. A Guide to the Amphibians and Reptiles of California. Website: http://www.californiaherps.com/. Accessed May 25, 2023.

SECTION 4: RESULTS

This section summarizes the results of the literature search and general biological reconnaissance survey. The results of the sensitive biological resources database reviews and an analysis for the potential for occurrence of these resources on the project site are presented in Section 5. An analysis of project requirements for MSHCP consistency is presented in Section 6.

4.1 - Literature Review

4.1.1 - Environmental Setting

The project site is situated on agricultural fields adjacent to Salt Creek Channel in the Menifee Valley. Menifee is within the San Jacinto Basin, a broad area of valleys and hills bounded by the San Jacinto Mountains and San Gorgonio Badlands on the northeast; the Box Springs Mountains on the north; and the Santa Ana Mountains on the southwest. The project site is generally flat; elevation ranges between approximately 1,440 feet (439 meters) above mean sea level on the south side of the project site to approximately 1,450 feet (442 meters) on the north side of the site.

Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) mapped five soil types (Domino silt loam, saline-alkali; Domino silt loam, strongly saline-alkali; Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes; Greenfield sandy loam, 0 to 2 percent slopes; and Ramona sandy loam, 0 to 5 percent slopes, severely eroded) on the project site (Exhibit 4). The Domino series soils are grayish brown, moderately alkaline, silt loam and consist of moderately deep, moderately well drained soils over lime-cemented hardpans. The Exeter series soils are brown and dark brown, neutral to slightly alkaline, loam and consist of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. The Greenfield series soils are pale brown, slightly acid, coarse sandy loam and consist of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. The Ramona series soils are brown, slightly to medium acid, sandy loam and fine sandy loam.

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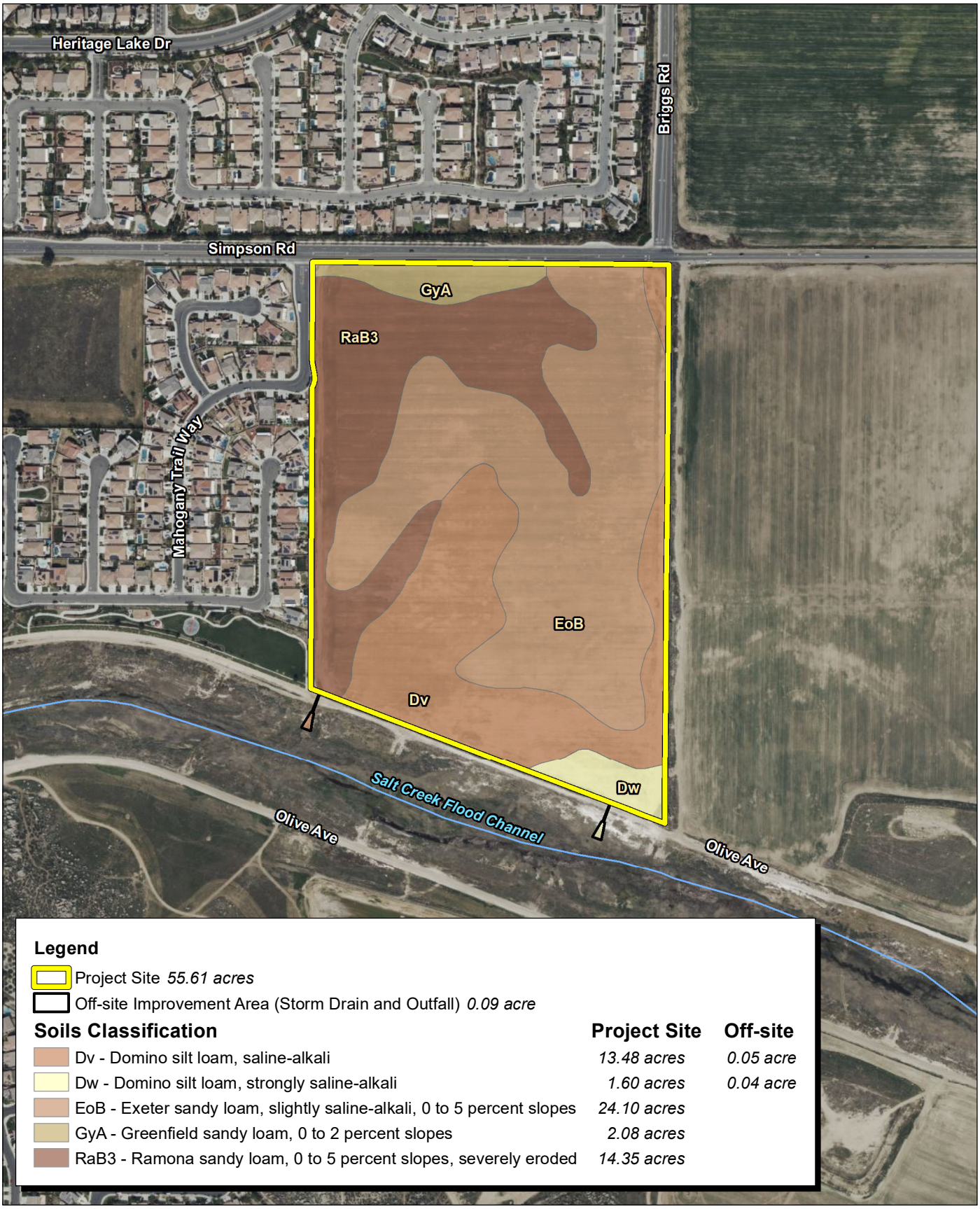

Source: Bing Aerial Imagery. USDA Soils Data Mart, Western Riverside County. Riverside County Fire and Flood Control.

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Exhibit 4
Soils Map

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4.2 - Biological Surveys

FCS Principal Biologist Michael Tuma, PhD, CWB, RPA conducted a general biological survey of the project site on May 18, 2023, between approximately 1:45 p.m. to 3:00 p.m. Weather conditions during the field surveys were sunny, with an average temperature around 76–77°F (degrees Fahrenheit) and wind speeds between 0 and 8 miles per hour (mph). Dr. Tuma conducted a second survey of the site, as well as survey of the outfall areas, on September 18, 2023 between 3:40 p.m. to 4:55 p.m. Weather conditions during this field survey were sunny, with an average temperature around 79–81°F (degrees Fahrenheit) and wind speeds between 0 and 2 miles per hour (mph).

4.2.1 - Vegetation Communities and Land Use

The project site consists predominantly of agricultural fields used for wheat cultivation. At the time of the survey, the wheat had been harvested and the field was in a fallowed state, and areas around the perimeter of the project site that bordered the wheat field exhibited disturbed surfaces supporting ruderal, weedy vegetation. Residential developments are located adjacent to the project on its western and northern borders. An agricultural field is located on the parcel to the east of the project site. A drainage ditch adjacent to the project site on its eastern border separates the two agricultural fields and appears to convey water to Salt Creek, located south of the project site. The drainage ditch is located outside of the project boundary and supports ruderal, weedy vegetation. The outfall locations, as well as the area between the southern border of the site and Salt Creek, support weedy, ruderal vegetation. The Salt Creek Channel, located about 150 feet south of the project site, supports sparse riparian vegetation. The vegetation communities and land cover types recorded on and within 500 feet of the project site are described below. A map showing vegetation communities and land cover types is presented in Exhibit 5. Photographs are presented in Appendix B.

Project Site

Irrigated Cropland

The majority of the project site is used as an irrigated cropland for wheat (*Triticum spp.*) production (Exhibit 5).

Ruderal/Bare

The outfall locations and areas bordering the wheat field were disturbed and supported ruderal, weedy species. Species observed in and adjacent to the drainage outside of the eastern border of the property included red brome (*Bromus madritensis ssp. rubens*), stinknet (*Oncosiphon pilulifer*), bull thistle (*Cirsium vulgare*), shortpod mustard (*Hirschfeldia incana*), curly dock (*Rumex crispus*), farmer's foxtail (*Hordeum murinum*), wild oat (*Avena fatua*), prickly sow thistle (*Sonchus asper*), Italian rye grass (*Festuca perennis*), annual yellow sweetclover (*Melilotus indicus*), ripgut brome (*Bromus diandrus*), perennial pepperweed (*Lepidium latifolium*), bulbous canary grass (*Phalaris aquatica*), rabbitsfoot grass (*Polypogon monspeliensis*), swamp mahogany eucalyptus (*Eucalyptus robusta*), cheeseweed (*Malva parviflora*), blue elderberry (*Sambucus mexicana*), summer cypress (*Kochia scoparia*), malta thistle (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), common sunflower (*Helianthus annuus*), rescuegrass (*Bromus catharticus*), and Canada horseweed (*Erigeron canadensis*). Species observed along the southern border of the project site included red brome,

stinknet, spreading alkali weed (*Cressa truxillensis*), common sow thistle (*Sonchus oleraceus*), red sandspurry (*Spergularia rubra*), and salt heliotrope (*Heliotropium curassavicum*). Species observed along the western and northern boundaries of the project site included red brome, stinknet, shortpod mustard, farmer's foxtail, wild oat, annual yellow sweetclover, cheeseweed, prickly lettuce, and Canada horseweed.

500-foot Buffer of Project Site

Riparian/Riverine Areas

The community within Salt Creek Channel is mostly dominated by dense cover of perennial pepperweed and salt grass (*Distichlis spicata*). At the canopy level, tamarisk (Tamarix ramosissima) is also present. The Salt Creek Channel also supports stands of cattail marshe (MCV: *Typha [angustifolia, domingensis, latifolia*] Herbaceous Alliance). This vegetation community is dominated by a cattail species (*Typha sp.*) that is interspersed with weedy, ruderal vegetation and arroyo willow thickets. The Salt Creek Channel is within 500 feet of the project site and supports small, scattered, and sparse stands of arroyo willow thickets (MCV: *Salix lasiolepis* Shrubland Alliance). This vegetation community, in which arroyo willows are dominant or co-dominant in the shrub canopy, is found along stream banks and benches, slope seeps, and stringers along drainages. Other species commonly found in this community include coyote brush, mule fat, western sycamore, Fremont cottonwood (*Populus fremontii*), and blue elderberry. The arroyo thickets in Salt Creek support small stands of willow species (*Salix spp.*) and cattail (*Typha sp.*).

Ruderal/Bare

Portions of the 500-foot buffer around the project site exhibited surface disturbances that were bare or supported ruderal, weedy vegetation (Exhibit 5). Ruderal areas were observed on the floodplain adjacent to Salt Creek in the upland areas to the south of the project site and in the drainage ditch east of the project site. Bare areas included dirt roads along the southern and western borders of the project site. Ruderal areas associated with these features are dominated by salt grass and wall barley (*Hordeum murinum*). They also supported weedy species, including red brome, stinknet, bull thistle, shortpod mustard, farmer's foxtail, wild oat, prickly sow thistle, common sow thistle, annual yellow sweetclover, ripgut brome, cheeseweed, summer cypress, malta thistle, spreading alkali weed, red sandspurry, salt heliotrope, prickly lettuce, common sunflower, rescuegrass, Canada horseweed, Sahara mustard, red stem filaree, bristly fiddleneck, white horehound (*Marrubium vulgare*), panic veltdgrass, jimsonweed (*Datura stramonium*), Mediterranean grass (*Schismus barbatus*), burr medic (*Medicago polymorpha*), tumbleweed (*Kali tragus*), and London rockets (*Sisymbrium irio*).

Developed

Developed lands are located within 500 feet of the project site, primarily residential developments to the west and north of the project site (Exhibit 5). Developed areas are characterized by urbanization that includes a combination of a developed and hardscaped features, landscaped and manicured vegetation, and disturbed areas with bare soil surfaces supporting ruderal vegetation. Developed and hardscaped areas include buildings, paved roads, parking lots, and sidewalks. Manicured, landscaped areas typically feature street/shade trees, lawns, and shrubs with little or no exposed soil substrates. Irrigation and fertilization of landscaped areas allow for tropical and other

non-native and ornamental species to flourish in urban areas. Trees are often grown in a spaced pattern with an open understory, and lawns are typically one species maintained at a continuous, uniform height. Shrubs are grown as spaced individuals or in tight rows that are hedged. Developed areas often include areas with bare soil surfaces and weedy vegetation primarily composed of non-native, annual plant species. Developed areas provide habitat to a low diversity of wildlife that are tolerant of human-modified environments. Landscaped areas associated with the developments within 500 feet of the project site included species such as Mexican fan palm (*Washingtonia robusta*), camphor tree (*Cinnamomum camphora*), guava (*Psidium guajava*), Queensland brush box (*Lophostemon confertus*), sweetgum (*Liquidambar styraciflua*), lemon-scented gum (*Corymbia citriodora*), carrotwood (*Cupaniopsis anacardioides*), bottlebrush (*Callistemon* spp.), crepe myrtle (*Lagerstroemia* sp.), bougainvillea (*Bougainvillea* sp.), hibiscus (*Hibiscus* sp.), fountain grass (*Pennisetum setaceum*), society garlic (*Tulbaghia violacea*), and Bermuda grass (*Cynodon dactylon*), among others. Ruderal vegetation was observed in edges of the industrial developments, where species included a mixture of herbaceous vegetation, including red stem filaree, tumbleweed, white horehound, and Sahara mustard.

4.2.2 - Wildlife

The vegetation community and land cover types on and adjacent to the project site provide habitat for wildlife species that are tolerant of agricultural land uses and urbanization. The fallowed wheat field provides foraging opportunities for common invertebrates, reptiles, birds, and mammals, and potential nesting habitat for ground-nesting birds. The anthropogenic features adjacent to the project site (buildings and ornamental trees) could provide habitat for several wildlife species, including nesting birds. Wildlife activity during the general biological reconnaissance survey was low and few species were observed. The following discussions regarding the wildlife species observed within the project site are organized by taxonomic group. Each discussion contains representative examples of a particular taxonomic group either observed or expected to occur on-site. No special-status wildlife species were observed during the survey.

Invertebrates

Invertebrate species that are likely to occur at the site year-round or during seasonal pulses include several species of beetles, flies, ants, bees, wasps, moths and butterflies, grasshoppers and crickets, and spiders and tarantulas, among others.

Amphibians and Fish

No amphibian or fish species were observed on-site during the general biological reconnaissance surveys. Amphibian species may occur adjacent to the site in the drainage ditch and Salt Creek, but fish and amphibians are not expected to occur on-site due to a lack of permanent or sufficient water sources.

Reptiles

No reptiles were observed on the project site. Common species that could occur there include western side-blotched lizard (*Uta stansburiana elegans*) and Great Basin fence lizard (*Sceloporus occidentalis longipes*).

Birds

Several avian species were observed during the survey, including house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), ash-throated flycatcher (*Myiarchus cinerascens*), Brewer's blackbird (*Euphagus cyanocephalus*), Say's phoebe (*Sayornis saya*), red-tailed hawk (*Buteo jamaicensis*), western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), barn swallow (*Hirundo rustica*), northern rough-winged swallow (*Stelgidopteryx serripennis*), rock pigeon (*Columba livia*), and common raven (*Corvus corax*). Other bird species expected to occur on-site include common species typical of the region and tolerant of anthropogenic activities and features, such as northern mockingbird (*Mimus polyglottos*) and lesser goldfinch (*Spinus psaltria*), and non-native species such as European starling (*Sturnus vulgaris*) and Eurasian collared dove (*Streptopelia decaocto*). Birds may find nesting habitat throughout the project site on bare ground, and in shrubs and trees and on buildings adjacent to the site.

Mammals

California ground squirrels (*Otospermophilus beecheyi*) were observed on-site during the field survey, as were numerous California ground squirrel burrows. Raccoon (*Procyon lotor*) and valley pocket gopher (*Thomomys bottae*) carcasses were also observed on the project site.

4.2.3 - Wildlife Movement Corridors

The majority of the project site consists of agricultural lands, but it is mostly surrounded by urbanized areas and roads to the west and north that limit wildlife movement through the project site. The project site itself does not serve as a wildlife movement corridor.

4.3 - CDFW Jurisdiction

Salt Creek Channel is considered wetland waters of the United States and State under the jurisdiction of the USACE/RWQCB and protected streambed and vegetated streambed areas are under the jurisdiction of the CDFW. The project outfall locations (Salt Creek Channel) are within CDFW streambed areas and support ruderal, weedy species.

4.3.1 - Drainage No. 1

Drainage No. 1 enters the Study Area with natural boundaries from the north and flows to the south. As it approaches the northern survey area, it enters a culvert under Simpson Road and continues to the south. Drainage No. 1 continues past the project site boundary before flowing into Salt Creek.

An ordinary high water mark (OHWM) Datasheet P01 was completed within the natural boundaries OHWM area for Drainage No. 1. The width of the OHWM near P01 is approximately 14 feet. Drainage No. 1 has a top of bank that was equivalent to the OHWM bounds to both its west and east. Near P01, the OHWM is evident due to a change in vegetation cover, a break in bank slope, and the presence of water. During the survey, the OHWM/top of bank was filled with water. This water was determined to be perennial; therefore Drainage No. 1 was determined to be an intermittent stream. The active floodplain was indicated by the presence of bed and bank and surface relief. The active floodplain is limited to the top of bank and is controlled by surface relief.

A Wetland Determination Form was not taken for Drainage No. 1 due to a lack of hydrophytic plants and riparian cover; therefore, Drainage No. 1 was determined to be a non-wetland. A total of 2,580 linear feet (0.19 acre) of Drainage No. 1 is in the project Study Area. None of Drainage No. 1 is on the project site; it is limited to off-site areas easterly of the property.

Drainage No. 1 has a connection to several water bodies. It first connects downstream to Salt Creek. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to the San Jacinto River. The San Jacinto River connects downstream to Lake Elsinore.

There would be no substantial adverse effect on Drainage No. 1 through direct removal, filling, or hydrological interruption. However, indirect impacts can occur, such as the potential release of pollutants caused by project implementation through downstream runoff. During construction, activities such as grading and demolition create pollutants that can leave the site and harm nearby waterways. Sediment is one of the main pollutants of concern. When it rains, stormwater washes over the loose soil on a construction site, along with various materials and products being stored outside. As stormwater flows over the site, it can pick up pollutants, such as chemicals, debris, loose soil, sediment, and spilled fluids. These pollutants could be transported downstream into other bodies of water, including Drainage No. 1. Because of the proposed project's downstream connection to other water bodies, project development has the potential to indirectly impact Drainage No. 1.

4.4 - MSHCP Riparian Riverine Habitat

Waters of the State that are under the jurisdiction of the MSHCP and are delineated at the top of the bank of a stream and extend to Riparian Riverine Habitat or vegetation associated with watercourses. Riparian vegetation is that which depends on surface or groundwater associated with the stream to exist and other vegetation that is either more dense or vigorous than the surrounding communities will also be considered under the jurisdiction of the MSHCP.

4.4.1 - Salt Creek

The community within Salt Creek Channel is mostly dominated by dense cover of perennial pepperweed and salt grass. At the canopy level, tamarisk is also present. The Salt Creek Channel also supports stands of cattail marshes. This vegetation community is dominated by a cattail species that is interspersed with weedy, ruderal vegetation and arroyo willow thickets. The Salt Creek Channel is within 500 feet of the project site and supports small, scattered, and sparse stands of arroyo willow thickets. This vegetation community, in which arroyo willows are dominant or co-dominant in the shrub canopy, is found along stream banks and benches, slope seeps, and stringers along drainages. Other species commonly found in this community include coyote brush, mule fat, western sycamore, Fremont cottonwood, and blue elderberry. The arroyo thickets in Salt Creek support small stands of willow species and cattail.

Salt Creek is a relatively large water system with a stream channel and wetland. The stream channel is single-thread and meanders moderately as it flows east to west. The channel is shallow (1 to 4 feet) and varies in width between 6 to 15 feet. During the site visit in September 2023, water was present along the entire channel. Signs of recent water flow were evident in a wide swath (0 to 80

feet) from the channel which was probably a wider flow range than normal given the wet spring in the area.

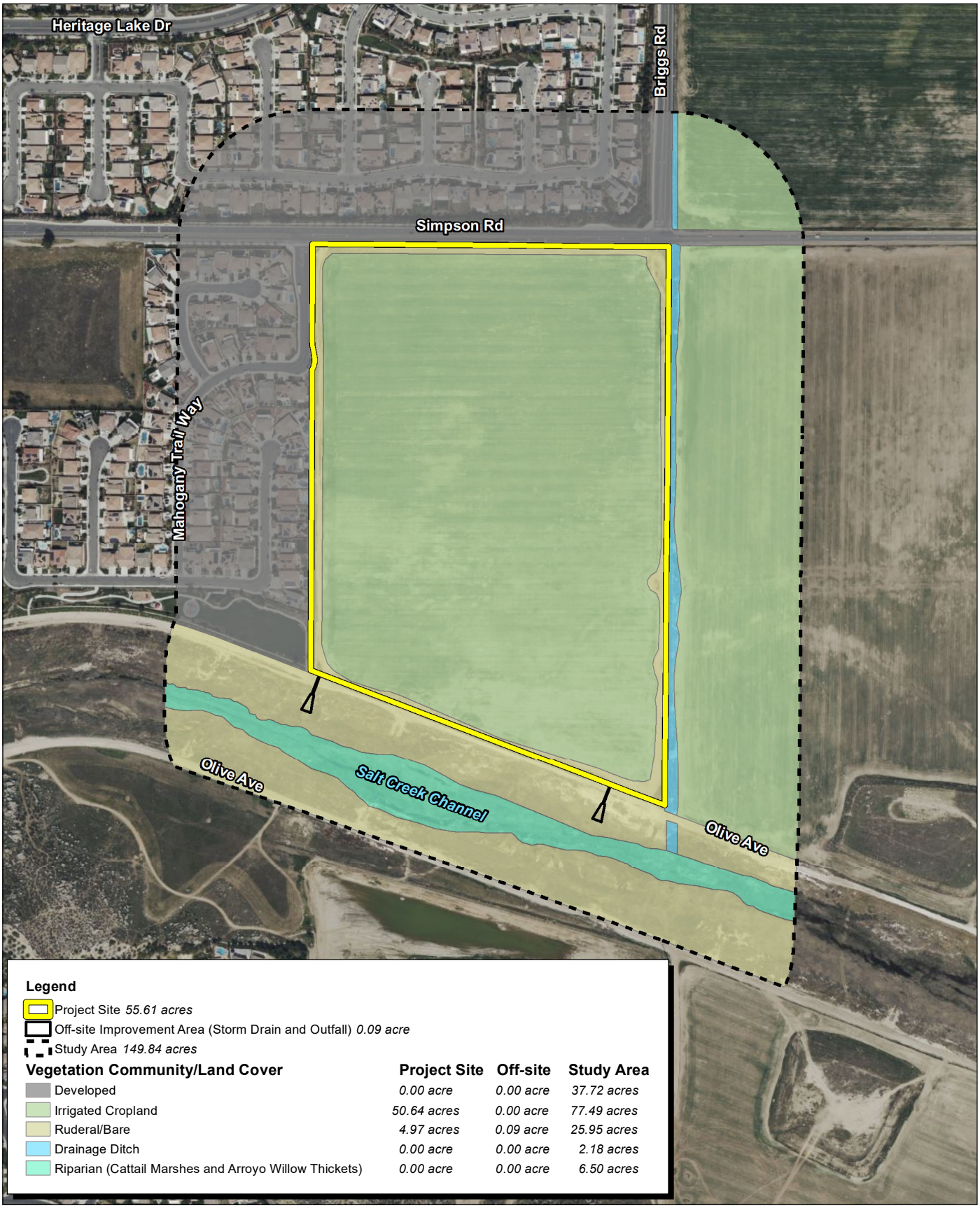
Wetland Determination Form (Wetland-1) was completed at a point within 20 feet of the stream channel where three primary hydrology indicators were present: drift deposits, surface soil cracks, and salt crust. Wetland hydrology was present. The soil pit for Wetland-1 had a color of 10 YR 4/4 from 0 to 6 inches below ground surface (BGS) and a color of 10 GY 8/1 from 6 to 20 inches BGS. The gleyed soil was classified as a Loamy Gleyed Matrix. Hydric soil was present for Wetland-1. Three species were observed at the herb stratum for the Wetland-1 point: salt grass (Facultative [FAC]), broadleaved pepperweed (FAC), and flatspine bursage (*Ambrosia acanthicarpa*, Upland [UPL]). The vegetation dominance test passed at 100 percent, but the prevalence index failed at 3.24. Because the dominance test passed, hydrophytic vegetation was present. The site met the three requirements for wetland status of wetland hydrology, soil, and vegetation and was determined to be wetland.

Upland Determination Form (Upland-1) was completed in an area to the southeast of the area for Wetland-1. The area was approximately 100 feet from the stream channel and upland and there were no primary or secondary indicators of hydrology. Wetland hydrology was not present. The soil pit for Upland-1 had a color of 10 YR 4/4 from 0–6 inches BGS and a color of 10 YR 6/3 from 6-20 inches BGS. Hydric soils were not present. Three species were observed at the herb stratum for the Upland-1 point: pit-gland tarweed (*Holocarpha virgata*, UPL), fivehorn smootherweed (*Bassia hyssopifolia*), Faculative Upland [FACU]), and stinknet (FACU). The vegetation dominance test failed at 0 percent and the prevalence index failed at 4.2 and therefore no hydrophytic vegetation was present. Upland-1 was determined to be non-wetland.

A total of 2,525 linear feet (25.35 acre) of Salt Creek is in the project Study Area, including 12.28 acres with wetland jurisdiction and 25.35 acres of total MSHCP jurisdiction. Salt Creek has an upstream and downstream connection to several water bodies. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to the San Jacinto River. The San Jacinto River connects downstream to Lake Elsinore.

4.5 - Public/Quasi-Public Land

The project site is located partially within and adjacent to PQP Conserved Lands in the Salt Creek Channel. The project areas within the PQP Lands include portions of the Olive Avenue trail and upland areas from Salt Creek that support ruderal, weedy species. Dominant species within Salt Creek Channel include pepperweed and salt grass and in the upland areas include salt grass and wall barley.



Vegetation Community/Land Cover	Project Site	Off-site	Study Area
Developed	0.00 acre	0.00 acre	37.72 acres
Irrigated Cropland	50.64 acres	0.00 acre	77.49 acres
Ruderal/Bare	4.97 acres	0.09 acre	25.95 acres
Drainage Ditch	0.00 acre	0.00 acre	2.18 acres
Riparian (Cattail Marshes and Arroyo Willow Thickets)	0.00 acre	0.00 acre	6.50 acres

Source: Bing Aerial Imagery. Kimley-Horn Engineers, 07/2023. Riverside County Fire and Flood Control.

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Exhibit 5
Vegetation Community/ Land Cover Map

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES DATABASE REVIEWS

The following section discusses the results of the database reviews for sensitive biological resources and an analysis of the potential for these resources to occur within the project site based on existing biological conditions on and adjacent to the site.

5.1 - Sensitive Natural Communities

Sensitive natural communities are vegetation communities or special wildlife habitats that are rare or occur in limited distributions or provide specific habitat requirements for special-status plant or wildlife species. The CDFW maintains a list of natural vegetation communities found in California and ranks them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities.[22] The CNDDB identified one sensitive natural community—Southern Cottonwood Willow Riparian Forest—within 5 miles of the project site. Three sensitive natural communities—Southern Coast Live Oak Riparian Forest, Southern Riparian Scrub, and Southern Sycamore Alder Riparian Woodland—have been recorded in the CNDDB between 5 and 10 miles from the site.[23] The arroyo willow thickets located in the Salt Creek Channel south of the project site may be considered Southern Riparian Scrub, but there are no sensitive natural communities on the project site.

5.2 - Special-status Plant Species

Within 10 miles of the project site, 66 special-status plant species have been recorded in the CNDDB,[24,25] on the nine-quadrangle search area of the CNPSEI,[26] and in the IPaC query results (Appendix C, Table 1). Table 1 in Appendix C includes the species' status, required habitat, and a summary analysis of the potential for each species to occur on the project site. The potential for occurrence of a species was based on current biological conditions on the project site and presence of suitable habitats, soil types, and proximity and number of occurrences recorded in the CNDDB.[27,28,29] Intensive agricultural land uses and associated previous surface disturbances evident throughout the project site have eliminated the possibility for persistence and occurrence of populations of special-status plant species.

[22] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. July 5, 2022. Accessed May 25, 2023.
[23] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.
[24] California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed May 25, 2023.
[25] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.
[26] California Native Plant Society (CNPS). 2023. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed May 25, 2023.
[27] California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed May 25, 2023.
[28] California Native Plant Society (CNPS). 2023. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed May 25, 2023.
[29] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.

5.2.1 - Potential for Occurrence of Special-status Plants

The project site consists predominantly of agricultural fields and has been previously subjected to significant surface disturbances, including repeated planting, harvesting, and disking or grubbing during weed abatement activities. The project site is surrounded by urbanized development to the west and north, more agricultural fields to the east and riparian habitat to the south that is separated from the project site by roads and disturbed, weedy, rural areas. Because of the conditions on and adjacent to the project site, all special-status plants that occur in the region were assessed as having no potential for occurrence (Appendix C, Table 1). Thus, special-status plants are not expected to occur on the project site and are not discussed further.

5.3 - Special-status Wildlife Species

Forty-two special-status wildlife species were identified as occurring within 10 miles of the project site as recorded in the CNDDB[30,31] and an additional two species were identified in the USFWS IPaC[32] review (Appendix C, Table 2). Table 2 in Appendix C includes the legal status of each species, their required habitat types and features, and their potential to occur on the project site. The table also includes special-status wildlife species that have been determined to have no or low potential to occur on-site, primarily based on the project site being situated outside of the range of the species or absence of suitable habitat or the lack of recent records in the project vicinity, along with other justification(s) for their exclusion from further discussion. Special-status wildlife species with moderate to high potential to occur on-site are analyzed further below. The potential for wildlife to occur on the project site was based on presence of suitable habitats and proximity and recency of occurrences recorded in the CNDDB.[33,34]

5.3.1 - Potential for Occurrence of Special-status Wildlife

Most species with records in the project vicinity were assessed as having no or low potential to occur because the project site is outside of the known distributional range of the species or because the project site does not support suitable habitat (Appendix C, Table 2). These species are not discussed further. The following species were assessed as having moderate potential to occur on or adjacent to the project site. These species are discussed further below.

- western spadefoot (*Spea hammondii*)
- Cooper's hawk (*Accipiter cooperii*)
- burrowing owl (*Athene cunicularia*)
- ferruginous hawk (*Buteo regali*)
- white-tailed kite (*Elanus leucurus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)

[30] California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed May 25, 2023.
[31] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.
[32] United States Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed May 25, 2023.
[33] California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed May 25, 2023.
[34] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.

Western Spadefoot

Western spadefoot is an Anuran amphibian in the family Pelobatidae. This species prefers open areas with sandy or gravelly soils in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Western spadefoot breed in seasonally ephemeral pools of water that do not contain bullfrogs, fish, or crayfish. Breeding sites include vernal pools and other temporary rain pools, cattle tanks, and occasionally in pools within intermittent streams. Suitable breeding pools must support standing water for at least 4 to 11 weeks for the larval stages of this species to transform. Typically, the pools are turbid with little or no cover. Western spadefoot are nocturnal and almost completely terrestrial, entering water only to breed. They burrow underground using the hardened spades on their hind feet and can remain buried underground for most of the year, emerging during periods of rain for breeding. Breeding may take place from January to May, peaking in February and March, but may breed at any time of the year if conditions are favorable. Western spadefoot eat a variety of invertebrates, including adult beetles, larval and adult moths, crickets, flies, ants, and earthworms, and can consume enough in several weeks to survive the long period of underground dormancy. Western spadefoot is designated as a California Species of Special Concern and is covered under the MSHCP. There are 12 recent and one historical records within 5 miles of the project site and 23 recent and 10 historical records between 5 and 10 miles from the project site (Exhibit 6).[35] Suitable habitat is present on and adjacent to the project site. The drainage adjacent to the project site could potentially support breeding pools.

Cooper's Hawk

Cooper's hawk is a hawk in the family Accipitridae. This species occurs in riparian forests and woodlands throughout California, including urban forests. It prefers patchy wooded areas, such as groves with edges with snags for perching. It nests in dense stands with moderate crown-depths, usually nests in second-growth conifer stands, or in deciduous riparian areas, usually near streams. Cooper's hawk prey on mid-sized birds such as jays, starlings, and doves, but they also consume small rodents. The species capture prey from cover or while flying quickly through dense vegetation, relying on surprise. The Cooper's hawk is designated as a California Watch List species and it is covered under the MSHCP. Their nests are protected by the MBTA and California FGC pertaining to native nesting avian species. Suitable foraging and nesting habitat for this species is present adjacent to the project site within the 500-foot buffer in areas containing trees. There is one recent and one historical record between 5 and 10 miles from the project site (Exhibit 6).[36]

Burrowing Owl

The burrowing owl is an owl in the family Strigidae. Burrowing owls occur in open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably those of the California ground squirrel but also those excavated by coyotes, desert kit foxes, desert tortoises, American badgers, and other burrowing mammals. Burrowing owl populations are threatened by habitat loss,

[35] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.
[36] Ibid.

pesticide use, and ground squirrel eradication programs, which limit suitable burrowing habitat. The burrowing owl is designated as a California Species of Special Concern and a federal Bird of Conservation Concern, and it is covered under the MSHCP. Limited take of this species is covered under the MSHCP under certain conditions; however, their nesting burrows are protected by the MBTA and California FGC pertaining to native nesting avian species. The project site is also located within a burrowing owl survey area. Suitable burrowing and nesting habitat for this species is present on the project site within fallowed and ruderal areas supporting California ground squirrel burrows. There are 49 recent and six historical records within 5 miles of the project site and 27 recent and 10 historical records between 5 and 10 miles from the project site (Exhibit 6).[37]

Ferruginous Hawk

The ferruginous hawk is a hawk in the family Accipitridae. This species is migratory and is a somewhat common winter resident of southwestern California, where it frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Ferruginous hawk generally arrive in California in September and depart by mid-April. Urban development may contribute to loss of suitable wintering habitat in California. This species is on a CDFW Watch List and it is covered under the MSHCP. Suitable wintering foraging habitat for this species is present on-site. There are four recent and one historical records within 5 miles of the project site (Exhibit 6).[38]

White-tailed Kite

The white-tailed kite is a hawk in the family Accipitridae. This species inhabits open habitats such as grasslands, marshes, and farmlands, and is often found near agricultural areas. It prefers areas with trees for perching and nesting, and forages in open areas that support diurnal rodent populations. Preferred nesting habitat consists of oak woodlands or trees along marsh edges. Suitable nesting substrates include trees or shrubs of moderate height, such as eucalyptus, cottonwoods, toyons, and coyote bush, with the nests placed near the tops of the shrubs or trees. Nesting occurs in February through August with peak activity in March, April, and May. The white-tailed kite is designated as a California Fully Protected species and it is covered under the MSHCP. Their nests are protected by the MBTA and California FGC pertaining to native nesting avian species. Suitable foraging habitat for this species is present on-site and trees adjacent to the project site provide potentially suitable nesting habitat. There is one recent record within 5 miles of the project site and one recent record between 5 and 10 miles from the project site (Exhibit 6).[39]

San Diego Black-tailed Jackrabbit

San Diego black-tailed jackrabbit is a lagomorph in the family Leporidae. This species occurs primarily in arid regions with short grass including open grasslands, agricultural fields, and sparse coastal scrub. It nests under bushes or shrubs that have shallow depressions. The San Diego black-tailed jackrabbit is covered under the MSHCP. Suitable habitat for this species is present on and adjacent to the project site within fallowed agricultural fields. There are six recent and three

[37] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.
[38] Ibid.
[39] Ibid.

historical records within 5 miles of the project site and four recent and six historical records between 5 and 10 miles from the project site (Exhibit 6).[40]

5.3.2 - Nesting Birds

The project site and adjacent areas contain vegetation and other potential nesting platforms that could provide suitable nesting habitat for bird species protected under the MBTA and the Fish and Game Code. These species include Cooper's hawk, burrowing owl, white-tailed kite, and other native avian species. Construction activities could disturb birds that breed and nest in shrubs or on the ground surface on and adjacent to the project site. Potential impacts on special-status and migratory birds that could result from construction and operation of the proposed project include destruction of eggs or occupied nests, mortality of young, and abandonment of nests with eggs or young birds prior to fledging.

5.4 - Potentially Jurisdictional Water and Wetlands

A formal jurisdictional delineation of wetlands/waters was completed by South Environmental, which is included under separate cover [Appendix E]. The limits of the drainage adjacent to the site (Drainage No. 1) were estimated using binoculars and traversing public roads since the team did not have permission to access this off-site property. Drainage No. 1 was determined to be an intermittent stream and likely considered a non-wetland water of the United States/State under the jurisdiction of USACE, RWQCB, CDFW, and MSHCP (Exhibit 8). A total of 2,580 linear feet (0.19 acre) of the drainage is in the Study Area (project site plus 500-foot buffer). Salt Creek Channel is considered wetland waters of the United States and State under the jurisdiction of the USACE/RWQCB and protected streambed and vegetated streambed areas are under the jurisdiction of the CDFW and MSHCP. A total of 2,525 linear feet (25.35 acres) of Salt Creek Channel is in the Study Area, including 12.28 acres with wetland jurisdiction and 25.35 acres of total MSHCP jurisdiction.

5.5 - MSHCP Riparian Riverine Habitat

MSHCP Riparian Riverine Habitat is located within Salt Creek Channel (Exhibit 7a). The riparian habitat in the channel is best described as arroyo willow thickets (CDFW Natural Community Code 61.201.00; Exhibit 5). This community is considered sensitive by the CDFW and ranked S4.[41] The stream channel is single-thread and meanders moderately as it flows east to west. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to San Jacinto River. San Jacinto River connects downstream to Lake Elsinore. Lake Elsinore is considered a traditional navigable water (TNW) by the USACE. Thus, Salt Creek would be considered a Riverine Area under the MSHCP. The total permanent impacts to MSHCP riverine habitat anticipated from the proposed

[40] California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed May 25, 2023.

[41] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List. Sacramento: California Department of Fish and Wildlife. July 5, 2022. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed May 25, 2023.

project includes 0.09 acre (70 linear feet) due to the permanent development of two 48-inch outfall structures that would fill these areas.

5.6 - Public/Quasi-Public Lands

The project site is located partially within and adjacent to PQP Conserved Lands in the Salt Creek Channel (Exhibit 7b). The project areas within the PQP Lands include portions of the Olive Avenue trail and upland areas from Salt Creek that support ruderal, weedy species. Approximately 0.07 acre of PQP Lands would be permanently impacted by the proposed project. These areas are a component of the 0.09 acre of CDFW streambed (MSHCP Riverine/Riparian) resources that would be impacted. The proposed project also has the potential to impact Drainage No. 1, located off-site along the eastern boundary of the project site.

CNDDB version 06/2023. Please Note:
The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Legend

- Project Site

CNDDB

Symbology

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), June 2023.

FIRSTCARBON SOLUTIONS™

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Exhibit 6
CNDDB Special-Status Species Occurrences

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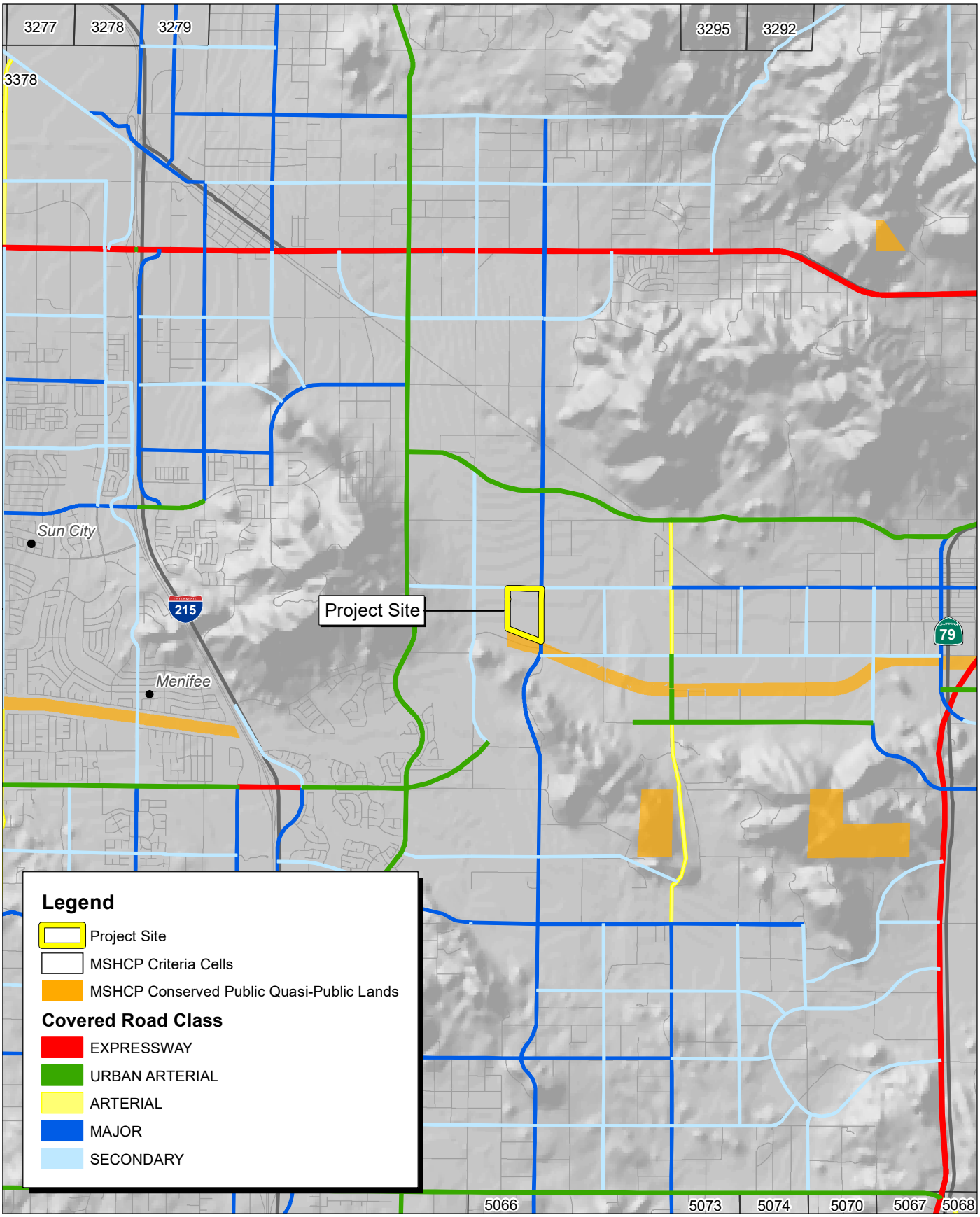

Source: USGS, Western Riverside County Regional Conservation Authority (RCA) MSHCP, Census 2000 data.

FIRSTCARBON SOLUTIONS™

1 0.5 0 1 Miles

Exhibit 7a
MSHCP Conservation Areas

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MLC HOLDINGS, INC.
TRACT 38625 SALT CREEK PROJECT
BIOLOGICAL RESOURCES ASSESSMENT AND WESTERN RIVERSIDE COUNTY
MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

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Source: Bing Aerial Imagery. Western Riverside County Regional Conservation Authority (RCA) MSHCP. Riverside County Fire and Flood Control.

FIRSTCARBON SOLUTIONS™

500 250 0 500 Feet

Exhibit 7b
MSHCP Conserved Public Quasi-Public Lands

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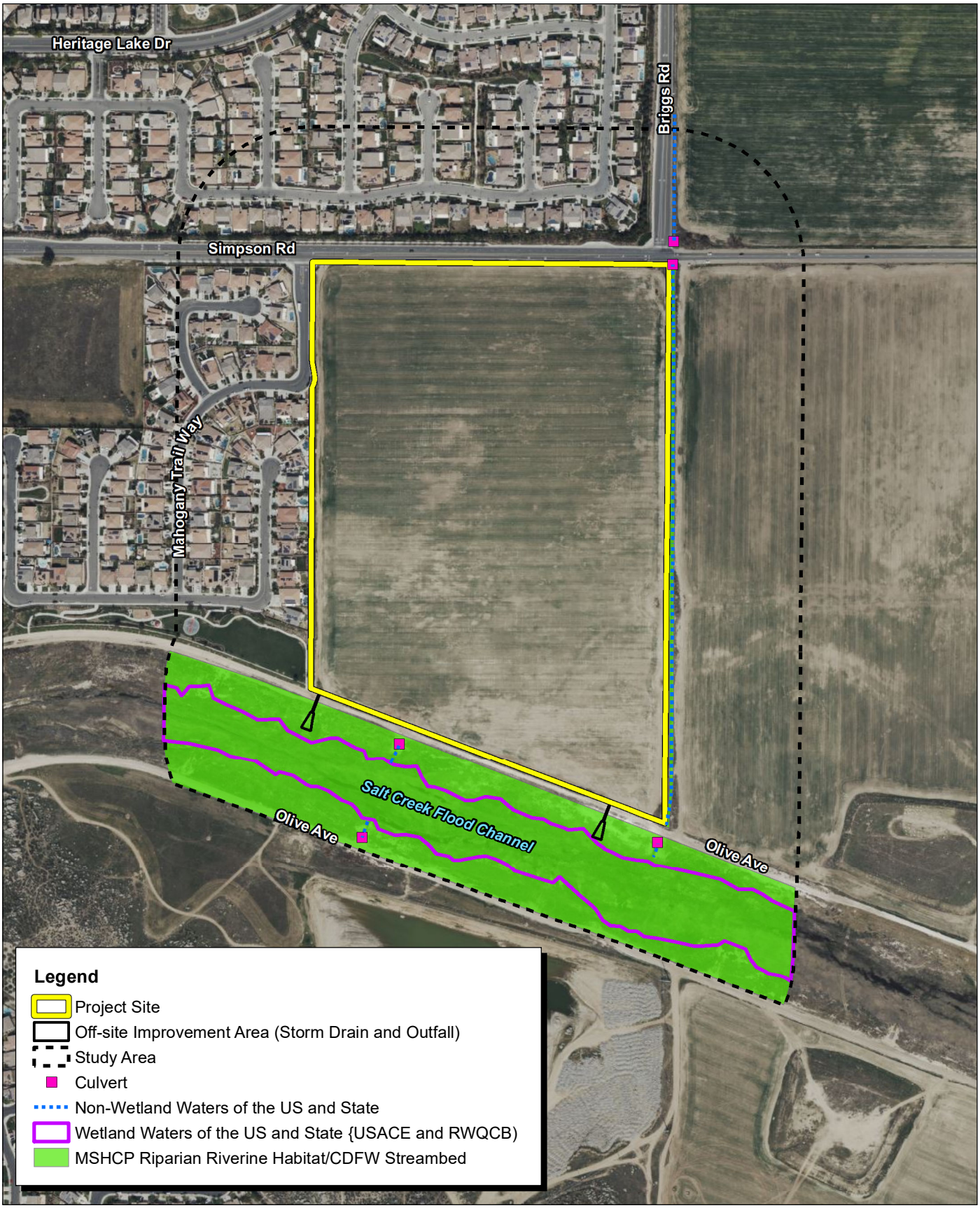

Source: Bing Aerial Imagery. South Environmental.

FIRSTCARBON SOLUTIONS™

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Feet

Exhibit 8
Jurisdictional Delineation

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SECTION 6: MSHCP CONSISTENCY ANALYSIS

6.1 - Relationship to Criteria Cells, Cell Groups, and Conservation Areas

The project site is located within the MSHCP plan area and is not within or adjacent to a Criteria Cell. The nearest Criteria Cell Group (3887) is located approximately 4.7 miles northeast of the project site (Exhibit 7a). The project site is partially within and adjacent to a Conservation Area, the Salt Creek Channel, a PQP Conserved Land located within the outfall areas of the project site and adjacent to the southern boundary of the project site (Exhibit 7b). Other Conservation Areas in the project vicinity include Bureau of Land Management (BLM) Exchange Parcels (PQP Conserved Land) approximately 1.4 miles southeast of the project site and Diamond Valley Lake Reservoir (PQP Conserved Land) approximately 4.3 miles southeast of the project site. This project area is not located within any Linkage. Because of its location outside of any Criteria Cells or Cell Groups, the project is not subject to Reserve Assembly Analysis requirements under the MSHCP. Because the project site is located partially within and adjacent to an MSHCP Conservation Area [PQP Lands within Salt Creek Channel], the proposed project would be subject to the MSHCP Guidelines Pertaining to the Urban/Wildlands Interface.

The reach of Salt Creek within and adjacent to the outfall action area possesses MSHCP Section 6.1.2 Riverine resources. The project site is not located within an area slated for Existing or Pending Conservation. The project site does not feature Avoidance Areas or areas that must be protected by, or proposed to be protected by, deed restriction. Current conditions and full development of the approximately 56.47-acre project site would not provide for any contributions to Undeveloped Areas Potentially Available for Future Conservation.

6.2 - Covered Roads

Briggs Road, a Major Road, is located on the easterly side of the project site. Improvements to Briggs Road would be limited to half-width improvements along the northeast project boundary. However, these half-width improvements to Briggs Road would not encroach into PQP Lands nor any Criteria Cell.

Another road, Simpson Road, is a Secondary Road located along the northern border of the project site, and roadway improvements along Simpson Road would not encroach into PQP Lands, nor any Criteria Cells. The project proposes one driveway that intersects with Briggs Road and another driveway that intersects with Simpson Road; however, because the proposed project is located outside of any Criteria Area, the proposed project is not subject to Covered Road requirements under the MSHCP. It should also be noted that no roadway improvements are proposed within PQP Lands. Additionally, the proposed off-site road improvements would not be considered capacity-enhancing improvements, so Joint Project Review would not be required.

6.3 - Covered Public Access Activities

The project site is located within an MSHCP Conservation Area and, therefore, is subject to Covered Public Access Activities requirements under the MSHCP.

6.4 - Public Quasi-Public Lands

6.4.1 - Existing Conditions

The project site is located partially within and adjacent to PQP Conserved Lands in the Salt Creek Channel (Exhibit 7b). The reach of Salt Creek within and adjacent to the outfall action area is located within PQP Conserved Lands. The project areas within the PQP Lands include portions of the Olive Avenue trail and upland areas from Salt Creek that support ruderal, weedy species. These areas do not contain sensitive habitats and do not provide suitable habitat for Covered Species. The Study Area does not contain graceful tarplant, but in cooperation with the Wildlife Agencies (Comment letter FWS/CDFW-WRIV-2024-0107363) this BRA and MSHCP Consistency Analysis document will analyze this species as if it were present.

6.4.2 - Potential Project Impacts

Two 48-inch outfall structures would be constructed within this Conservation Area resulting in 0.07 acre of permanent impacts to PQP Lands from the development of the outfalls. The proposed project also has the potential to impact Drainage No. 1, located off-site along the eastern boundary of the project site. Additionally, permanent impacts to 0.07 acre of PQP Land and graceful tarplant would occur.

6.4.3 - Determination of Biologically Equivalent or Superior Preservation

The Salt Creek Channel, and its PQP Lands, would be permanently impacted by construction of two 48-inch outfall structures. There are no opportunities for avoiding the Conservation Area, nor would there be opportunities for restoration of the permanent impact areas to PQP Lands following construction of the proposed project. The only means for achieving biological equivalency or superior preservation would be at off-site locations. Therefore, to achieve biologically equivalent or superior preservation, the applicant proposes to purchase credits at a minimum ratio of 4:1 through purchase of 0.036 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank. This mitigation option is detailed further in Section 7 of this report.

According to the CDFW, the Barry Jones-Skunk Hallow Mitigation Bank is an approximately 140-acre mitigation bank located in Riverside County, approximately 35 miles south of the City of Riverside and approximately 39 miles north of the City of Escondido. The service area for the mitigation bank includes all of western Riverside County.[42] The site is depicted on the *Bachelor Mountain* USGS 7.5-minute Topographic Quadrangle Map, Rancho San Jacinto Nuevo y Potrero Land Grant in unincorporated Riverside County, California (33°33'30.46"N, 117° 6'25.06"W).

[42] California Department of Fish and Wildlife. 2024. Conservation and Mitigation Banks Established in California by CDFW. Website: https://wildlife.ca.gov/Conservation/Planning/Banking/Approved-Banks. Accessed July 22, 2024.

The primary objective of the mitigation bank is to maintain the overall diversity of native flora and fauna within the Skunk Hollow Preserve through the preservation of wetland and vernal pool habitats. The mitigation bank replaces functions and services of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance or in violation of Section 404 of the CWA. The proposed strategy would provide mitigation for both permanent and temporary impacts to waters of the United States under USACE jurisdiction and waters of the State under CDFW jurisdiction. The proposed preserve habitat would deliver greater function and value than the impacted habitat, providing equivalent or superior preservation under the MSHCP.

The following mitigation strategy is proposed to avoid any impacts on Drainage No. 1:

- Prior to construction, the limit of Drainage No. 1 shall be delineated with fencing or flagging (orange plastic snow fence, orange silt fencing, or stakes and flagging) and designated as an Environmentally Sensitive Area (ESA). No construction activities and/or access would be permitted within the ESA designated areas. If work occurs within the ESA areas, all work shall cease until the issue has been resolved through the appropriate regulatory agencies and the City. ESA fencing and/or flagging shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction.
- The project would comply with all applicable water quality regulations, including obtaining and complying with those conditions established in Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit. Standard Best Management Practices (BMPs), which may include but are not limited to silt fencing, gravel berm, and fiber rolls, shall be installed to prevent any sediment and stormwater flows from entering Drainage No. 1. A project-specific Water Quality Management Plan and/or a Storm Water Pollution Prevention Plan (SWPPP) shall be implemented for the project, detailing project-specific BMPs.

Additionally, the proposed project has potential to impact graceful tarplant. Permanent impacts to 0.07 acre of PQP Land and graceful tarplant would be mitigated through the purchase of 6 pounds graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property. The following mitigation strategy is proposed to meet the criteria of a biologically equivalent or superior alternative and offset permanent impacts to PQP Conserved Land and graceful tarplant resources:

- Permanent impacts to 0.07 acre of PQP Land and graceful tarplant would be mitigated through the purchase of 6 pounds graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.

6.5 - Covered Species Survey Area Requirements

The project site is located in the following Covered Species survey area:

- Burrowing Owl Survey Area
- Narrow Endemic Plants Survey Area: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, Wright's trichocoronis

The proposed project is therefore subject to survey requirements for burrowing owl. Initially, the project site would be subject to a burrowing owl habitat assessment on and adjacent (within 500 feet) to the project site per MSHCP protocol and per CDFW (2012) protocol.

- The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owls are present on-site within 30 days prior to construction activities, according to the CDFW guidelines and MSHCP protocol. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. The applicant shall provide a burrowing owl survey report and mapping to the City prior to the expected start of any project-related ground disturbance activities or restart of activities. If the survey is positive for burrowing owls, the project applicant shall implement a Burrowing Owl Mitigation Plan in coordination with the City, the CDFW, the USFWS, and the Western Riverside County Regional Conservation Authority (RCA) (if coordination with the RCA is necessary). If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

If the pre-construction survey is positive for burrowing owls, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the CDFW 2012 guidelines) at a minimum:

- Avoidance of burrowing owls during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through January 31) or a 200- to 500-meter radius around occupied burrows during the breeding season (February 1 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owls have dispersed from the area; or (2) breeding season owls have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

The proposed project is also subject to survey requirements for six target species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). For these narrow endemic plant species, focused surveys would be required if habitat is present, conducted per CDFW (2018)

protocol, which requires that surveys be implemented during the appropriate blooming period for each target species. Requirements for burrowing owl and Narrow Endemic Plants are discussed further below.

The project area is not located in any of the following Covered Species survey areas:

- Amphibians Survey Area
- Mammals Survey Area
- Delhi Sands Flower-loving Fly Survey Area
- Criteria Area Species

Additionally, the project site is not located within any Additional Needs Survey Areas. The proposed project is therefore not subject to these survey requirements under the MSHCP.

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

6.6.1 - Riparian Riverine Habitat

Methods

Riparian/Riverine Areas were recorded in the field by FCS Principal Biologist Michael Tuma, PhD, CWB, RPA on September 18, 2023. The extents of any riparian vegetation or riverine feature were mapped using Google Earth Pro and later digitized in shape files using ESRI ArcGIS software® ArcMap 10.0. Any drainage features were examined downstream during the pedestrian survey and with subsequent mapping in Google Earth Pro. The vegetation communities were described based on the MCV and cross-referenced with the CDFW Natural Communities List.[59,60] These areas were confirmed in the formal jurisdictional delineation of wetlands/waters completed by South Environmental.

Existing Conditions and Results

Riparian Habitat

As described previously, the riparian habitat in the channel is best described as arroyo willow thickets (CDFW Natural Community Code 61.201.00; Exhibit 5). This community is considered sensitive by the CDFW and ranked S4.[43] The arroyo thickets in Salt Creek support small stands of willow species and cattail. Other species present in Salt Creek include perennial pepperweed, salt grass, and tamarisk.

Riverine Feature

The stream channel is single-thread and meanders moderately as it flows east to west. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to San Jacinto River. San Jacinto River connects downstream stream to Lake Elsinore. Lake Elsinore is considered a TNW by the USACE. Thus, Salt Creek would be considered a Riverine Area under the MSHCP.

[43] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. July 5, 2022. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed May 25, 2023.

Potential Project Impacts

The applicant proposes to develop two 48-inch outfall structures that would permanently impact 0.09 acre (70 linear feet) of CDFW jurisdiction along the northern bank of Salt Creek These outfalls will also result in the release of treated water from on-site water quality basins into CDFW streambed and into the wetlands (USACE and RWQCB) of Salt Creek, which would not impact stream flows within Salt Creek. Additionally, Drainage No. 1, located off-site and along the eastern edge of the project site, would not be disturbed as part of the proposed project (Exhibit 9). Implementation of standard BMPs, as discussed in Section 7, would avoid any potential impacts to Drainage No. 1.

Determination of Biologically Equivalent or Superior Preservation

The Riverine feature would be permanently impacted by construction of the two outfall structures. There are no opportunities for avoiding the Riverine Area, nor would there be opportunities for restoration of habitat in the permanent impact areas following construction of the proposed project. The only means for achieving biological equivalency or superior preservation would be at off-site locations. Therefore, to achieve biologically equivalent or superior preservation, the applicant proposes to purchase credits at a ratio of 4:1 through purchase of 0.36 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank. Permanent impacts to 0.07 acre of PQP Land and graceful tarplant would be mitigated through the purchase of 6 pounds graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property. This mitigation option is detailed further in Section 7 of this report, and more information on the Barry Jones/Skunk Hollow Mitigation Bank can be found in Section 6.4 of this report.

6.6.2 - Riparian Birds

There is riparian habitat adjacent to the project site in the arroyo willow thicket vegetation community, but the vegetation in this community is scattered and sparse and not suitable for occurrence of any riparian/riverine bird species, including least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), or western yellow-billed cuckoo (*Coccyzus americanus*). The proposed project is therefore not subject to riparian bird survey requirements.

6.6.3 - Vernal Pools

There are no vernal pools or features indicative of the historic presence of vernal pools on the project site or within 500 feet. According to the NRCS WSS (2023), five soil types are mapped on the project site (Exhibit 4). One of these soil types, the Ramona series, is known to be soil utilized by fairy shrimp species known to occur in the Western Riverside County MSHCP Plan Area. [44] However, the surface soils on the project site have a long history of disturbances due to agricultural use of the site, and vernal pools would not be able to persist under this land use regime. Therefore, the proposed project would not be subject to Vernal Pool or Vernal Pool Species requirements under the MSHCP.

[44] United States Fish and Wildlife Service (USFWS). 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon.

6.7 - Additional Survey Needs and Procedures

6.7.1 - Burrowing Owl

Analysis

The majority of the project site supports suitable foraging, burrowing, and nesting habitat for burrowing owl. The vegetation is low growing over the project site and there are numerous California ground squirrel burrows on-site that could be used by burrowing owls. For these reasons, there is a moderate potential for burrowing owls to occupy the project site. The CNDDB shows 76 recent and 16 historical records of burrowing owls within 10 miles of the project site. This species is covered under the MSHCP and protected by the MBTA and Fish and Game Codes.

Potential Project Impacts

Construction of the proposed project could potentially impact burrowing owls if burrowing owls are occupying the project site when ground-disturbing construction activities are initiated. Impacts could occur outside of the nesting season (September 1 through January 31) or during the breeding season (February 1 through August 31) of the species.

Proposed Mitigation

Mitigation for burrowing owls is presented in Section 7.

6.7.2 - Narrow Endemic Plant Species

Methods

As previously discussed, the project site is located in a part of the MSHCP plan area that requires surveys for six Narrow Endemic Plants Species. These species were assessed for their potential for occurrence on the project site or in the off-site location for the two outfall structures along the banks of Salt Creek Channel, as described in Section 5.2 of this report and Appendix C, Table 1.

Existing Conditions and Results

Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis were assessed as having no potential to occur on the project site or in the off-site location for the two outfall structures along the banks of Salt Creek Channel, (see Section 5.2.1 and Appendix C, Table 1). The Study Area does not contain graceful tarplant (*Holocarpha virgata ssp. Elongata*), but in cooperation with the Wildlife Agencies (Comment letter FWS/CDFW-WRIV-2024-0107363) this BRA and MSHCP Consistency Analysis document will analyze this species as if it were present.

Because suitable habitat for these Narrow Endemic Plants is not present on the project site, rare plant surveys would not be required.

6.7.3 - Nesting Birds

Analysis

The project area supports vegetation communities, land cover types, and other habitat features that provide nesting habitat for avian species covered under the MBTA and Fish and Game Codes, including common, native species.

Potential Project Impacts

Construction of the proposed project could potentially impact nesting birds if ground-disturbing construction activities are initiated or conducted during the avian breeding season (February 1 through September 15).

Proposed Mitigation

Mitigation for nesting birds is presented in Section 7.

6.8 - Guidelines Pertaining to the Urban/Wildlands Interface

The project site is located adjacent to Salt Creek Channel, which is designated under the MSHCP as Conserved PQP Lands, a type of Conservation Area. Per Section 6.1.4 of the MSHCP Final Plan, Volume 1, projects that are adjacent to Conservation Areas are required to implement Guidelines Pertaining to the Urban/Wildlands Interface to control potentially adverse effects from affecting the integrity of those areas. Specific and applicable measures for the project that incorporate the Guidelines Pertaining to the Urban/Wildlands Interface are detailed in Section 7 and include:

1. Implementation of Best Management Practices (BMPs) and design features to prevent discharge or erosion of soils, untreated water, or other chemicals into Salt Creek Channel.
2. Measures to prevent discharge (including overspray and runoff) of chemicals used in landscaping, such as fertilizers, herbicides, insecticides, or rodenticides into the Salt Creek Channel for the life of the project.
3. Incorporation of barriers along the southern border to minimize unauthorized public access, illegal trespass, or dumping into the Salt Creek Channel.
4. Directing night lighting away from the Salt Creek Channel.
5. Avoid using invasive species in landscaping in the open space area planned for the southern portion of the project. Invasive species that shall not be used in landscaping are listed in Appendix D, Table D-1.
6. Manufactured slopes are not permitted to extend into the Salt Creek Channel.
7. Weed abatement and fuel modification zones may not encroach into the Salt Creek Channel.

6.9 - Best Management Practices

The project applicant shall implement Standard BMPs of the MSHCP (MSHCP Final Plan, Volume I, Appendix C). The BMPs are presented in Section 7.

6.10 - CDFW Jurisdiction

Existing Conditions

Riparian Habitat

The riparian habitat in the channel is best described as arroyo willow thickets (CDFW Natural Community Code 61.201.00; Exhibit 5). This community is considered sensitive by the CDFW and ranked S4.[45] The arroyo thickets in Salt Creek support small stands of willow species and cattail. Other species present in Salt Creek include perennial pepperweed, salt grass, and tamarisk.

Riverine Feature

The stream channel is single-thread and meanders moderately as it flows east to west. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to San Jacinto River. San Jacinto River connects downstream to Lake Elsinore. Lake Elsinore is considered a TNW by the USACE. Thus, Salt Creek would be considered a Riverine Area under the MSHCP.

Potential Project Impacts

The applicant proposes to develop two 48-inch outfall structures that would permanently impact 0.09 acre (70 linear feet) of CDFW jurisdiction along the northern bank of Salt Creek (Exhibit 9). These outfalls would also result in the release of treated water from on-site water quality basins into the CDFW streambed and wetlands (USACE and RWQCB) of Salt Creek, which would not impact stream flows within Salt Creek.

Determination of Biologically Equivalent or Superior Preservation

The Riverine feature and CDFW streambed would be permanently impacted by construction of the two outfall structures. There are no opportunities for avoiding the Riverine Area, nor would there be opportunities for restoration of habitat in the permanent impact areas following construction of the proposed project. The only means for achieving biological equivalency or superior preservation would be at off-site locations. Therefore, to achieve biologically equivalent or superior preservation, the applicant proposes to purchase credits at a 4:1 ratio at the Barry Jones/Skunk Hollow Mitigation Bank. This mitigation option is detailed further in Section 7 of this report and more information on the Barry Jones/Skunk Hollow Mitigation Bank can be found in Section 6.4 of this report.

Per coordination with the Wildlife Agencies, the following mitigation strategy to offset impacts to graceful tarplant is as follows (also provided in Section 7): Permanent impacts to 0.07 acre of PQP Land and graceful tarplant would be mitigated through the purchase of 6 pounds graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.

[45] California Department of Fish and Wildlife (CDFW). 2022. Natural Communities List, Sacramento: California Department of Fish and Wildlife. July 5, 2022. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed May 25, 2023.

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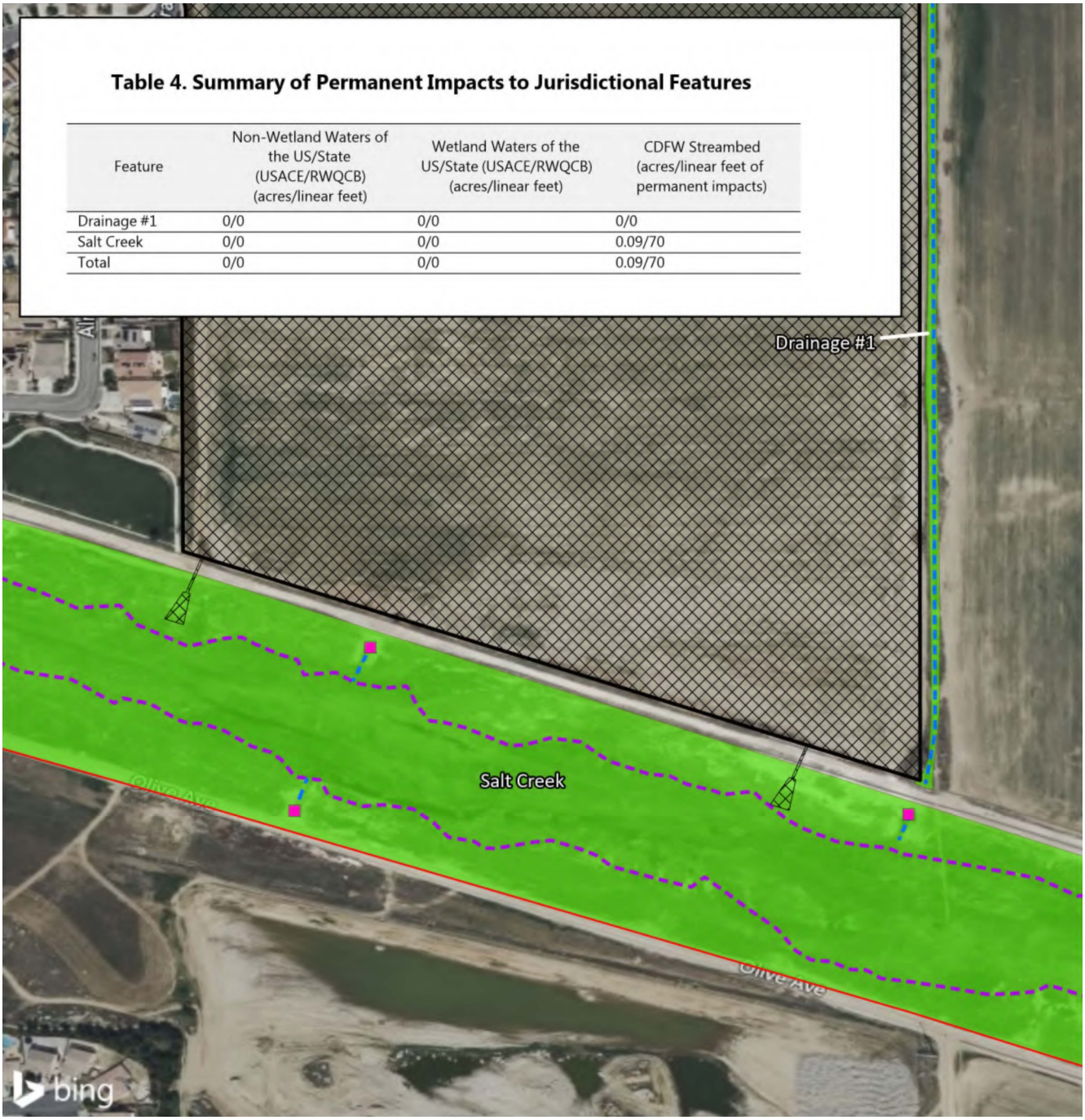
Table 4. Summary of Permanent Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	CDFW Streambed (acres/linear feet of permanent impacts)
Drainage #1	0/0	0/0	0/0
Salt Creek	0/0	0/0	0.09/70
Total	0/0	0/0	0.09/70



- Culvert
- Non-Wetland Waters of the US and State
- Wetland Waters of the US and State (USACE and RWQCB)
- CDFW Streambed and Vegetated Streambed Jurisdiction
- Project Site
- Study Area
- Proposed Development Footprint

0 175 350 Feet

Scale: 1:3,500

N

Source: Bing Aerial Imagery. South Environmental.

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Exhibit 9
Jurisdictional Impacts

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SECTION 7: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential project impacts on regulated biological resources, including special-status species, and recommends measures to avoid and/or mitigate impacts to a less than significant level under CEQA.

7.1 - Mitigation Measures

The following mitigation measures are required to reduce potential project-related impacts to less than significant levels. These mitigation measures clarify, expand upon, and are consistent with measures required under the MSHCP.

7.1.1 - Determination of Biologically Equivalent or Superior Preservation for Loss of Public Quasi-Public Lands and MSHCP Riverine Habitat

MM BIO-1 Riverine Habitat Mitigation-MSHCP and PQP Lands

The proposed project includes permanent removal of 0.07 acre of Public/Quasi-Public (PQP) Lands and a disturbance of 0.09 acre of Multiple Species Habitat Conservation Plan (MSHCP) Riverine habitat, 4.97 acres of which contains a disturbed alkaline meadow, from Salt Creek surrounding the proposed outfall locations. The 0.07 acre of PQP Lands exist within, and are a component of, the 0.09 acre of MSHCP Riverine habitat. To achieve biologically equivalent or superior preservation, the applicant proposes to offset permanent impacts to 0.07 acre of PQP Lands, alkaline soils, and graceful tarplant by purchasing 6 pounds of graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.

The applicant proposes to offset permanent impacts to 0.09 acre of MSHCP Riverine habitat by purchasing 0.36 acre of rehabilitation and/or re-establishment credits (4:1 ratio) at the Barry Jones/Skunk Hollow Mitigation Bank. The applicant shall also obtain any permits necessary for impacts to California Department of Fish and Wildlife (CDFW) jurisdictional areas.

The proposed project will also prepare a Determination of Biologically Equivalent or Superior Preservation (DBESP) document and seek approval from the Wildlife Agencies (CDFW and United States Fish and Wildlife Service [USFWS]), as well as the Regional Conservation Authority (RCA), to compensate for impacts to MSHCP Riverine habitat and PQP Lands/jurisdictional areas before impacts to these resources are implemented.

7.1.2 - Regulatory Permits and Agreements from Resource Agencies

MM BIO-2 Riverine Habitat Mitigation

The proposed project includes permanent removal of 0.09 acre of California Department of Fish and Wildlife (CDFW) streambed habitat from the Salt Creek. The applicant proposes to offset permanent impacts to 0.09 acre of CDFW streambed habitat by purchasing 0.36 acre of rehabilitation and/or re-establishment credits (4:1 ratio) at the Barry Jones/Skunk Hollow Mitigation Bank. The applicant shall also obtain any permits necessary for impacts to CDFW jurisdictional areas.

7.1.3 - MSHCP Construction Minimization Measures

MM BIO-3 Implement Construction Minimization Measures

The applicant shall implement the following Construction Minimization Measures, per Section 7.5.3 of the Multiple Species Habitat Conservation Plan (MSHCP):

- Plans for water pollution and erosion control shall be prepared. The plans shall describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and use of plant material for erosion control.
- Avoid work in riparian areas during most active breeding season; typically designated as March 1 to June 30 by the California Department of Fish and Wildlife (CDFW)/MSHCP Guidelines. Disturbance is restricted to a minimum of 300 feet away from any active nest.
- If vegetation removal must occur during this avoidance period, then a nest survey by a qualified Biologist is required. The nest survey shall be conducted for 5 consecutive days and no more than 3 days prior to clearing. If an active nest is observed, then the nest location shall be fenced off surrounding a minimum 300-foot (500 feet for raptors) radius buffer zone. The buffer zone shall not be disturbed until the nest is inactive.
- Sediment and erosion control measures shall be implemented until such time soils are determined to be successfully stabilized.
- Short-term stream diversions, if needed, shall be accomplished by use of sandbags or other methods that shall result in minimal instream impacts. Short-term diversions shall consider effects on wildlife.
- Silt fencing or other sediment trapping materials shall be installed at the downstream end of construction activities to minimize the transport of sediments off-site.
- Settling ponds where sediment is collected shall be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care shall be

exercised during removal of silt fencing to minimize release of debris or sediment into streams.

- No erodible materials shall be deposited into water courses. Brush, loose soils, or other debris material shall not be stockpiled within stream channels or on adjacent banks.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall occur on pre-existing access routes to the greatest extent possible.
- Equipment storage, fueling, and staging areas shall be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.
- Prior to construction, the limit of Drainage No. 1 shall be delineated with fencing or flagging (orange plastic snow fence, orange silt fencing, or stakes and flagging) and designated as an Environmentally Sensitive Area (ESA). No project-related construction activities and/or access shall occur in the Drainage No. 1 ESA during project development.
- The proposed project shall comply with all applicable water quality regulations, including obtaining and complying with those conditions established in Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit. Standard Best Management Practices (BMPs), which may include but are not limited to silt fencing, gravel berm, and fiber rolls, shall be installed to prevent any sediment and stormwater flows from entering Drainage No. 1. A project-specific Water Quality Management Plan and/or a Storm Water Pollution Prevention Plan (SWPPP) shall be implemented for the proposed project, detailing project-specific BMPs.

7.1.4 - Burrowing Owls

The fallowed wheat field and ruderal/weedy areas on the project site, as well as ruderal lands to the south of the site, support suitable foraging habitat for burrowing owls. There are numerous small mammal burrows on-site, including those from California ground squirrels that could be used by burrowing owls. The CNDDB shows 76 recent and 16 historical records of burrowing owls within 10 miles of the project site. This species is covered under the MSHCP and protected by the MBTA and Fish and Game Codes. Construction of the proposed project could potentially impact burrowing owls if ground-disturbing construction activities are initiated or conducted during the burrowing owl breeding season (February 1 through August 31).

MM BIO-4a Burrowing Owl Pre-construction Survey

The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owls are present on-site within 30 days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) guidelines and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) protocol. If construction is delayed or suspended for more than 30 days after the survey, the area shall be

resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. The applicant shall provide a burrowing owl survey report and mapping to the City prior to the expected start of any project-related ground disturbance activities or restart of activities. If the survey is positive for burrowing owls, the project applicant shall implement a Burrowing Owl Mitigation Plan in coordination with the City, the CDFW, the United States Fish and Wildlife Service (USFWS), and the Western Riverside County Regional Conservation Authority (RCA) (if coordination with the RCA is necessary). If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

If the survey is positive for burrowing owls, the project applicant shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan (MM BIO-4b). If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

MM BIO-4b Burrowing Owl Mitigation Plan

If the pre-construction survey is positive for burrowing owl, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the California Department of Fish and Wildlife [CDFW] 2012 guidelines) at a minimum:

- Avoidance of burrowing owls during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through January 31) or a 200- to 500-meter radius around occupied burrows during the breeding season (February 1 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owls have dispersed from the area; or (2) breeding season owls have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

7.1.5 - Nesting Birds

The project site and adjacent lands support vegetation communities, land cover types, trees, and other habitat features that provide nesting habitat for avian species covered under the MBTA and Fish and Game Code, including common, native species. Construction of the proposed project could potentially impact nesting birds if ground-disturbing or vegetation-removing construction activities are initiated or conducted during the avian breeding season (February 1 through September 15).

The project applicant shall implement the following mitigation measures to avoid potential impacts to nesting birds protected under the Fish and Game Code or the MBTA, including Cooper's hawk, burrowing owl, ferruginous hawk, and white-tailed kite. Implementation of the following measures would avoid and/or minimize potential effects to migratory birds and habitat in and adjacent to the project area. These measures shall be implemented for construction work during the nesting season (February 1 through September 15)**:**

MM BIO-5a Nesting Bird Pre-construction Surveys

If ground-disturbing or vegetation-removing construction activities or tree removal is proposed during the breeding/nesting season for migratory birds (typically February 1 through September 15), a qualified Biologist shall conduct pre-construction surveys for special-status birds and other migratory birds within the construction area, including a 300-foot survey buffer, no more than 3 days prior to the start of ground-disturbing activities in the construction area.

MM BIO-5b Avoidance of Active Avian Nests

If an active nest is located during pre-construction surveys or at any point during the construction phase of the project, the United States Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or a qualified Biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 300 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.

7.1.6 - Guidelines Pertaining to the Urban/Wildlands Interface

MM BIO-6 Implement MSHCP Guidelines Pertaining to the Urban/Wildlands Interface

The project applicant shall incorporate the following measures into the project design or construction Best Management Practices (BMPs):

1. Implementation of BMPs and design features to prevent discharge or erosion of soils, untreated water, or other chemicals into Salt Creek Channel, either directly or indirectly. BMPs shall be implemented to ensure that siltation and erosion are minimized during construction of the project. The project shall be designed to prevent discharge of untreated surface runoff from developed and paved areas into existing natural drainage courses and/or Multiple Species Habitat Conservation Plan (MSHCP) Conservation Areas, including the drainage along the eastern border of the project and the Salt Creek Channel. Any water quality or other drainage discharges would need to be reviewed by the Regional

Conservation Authority (RCA) prior to conveyance into the MSHCP Conservation Area.

2. Measures to prevent discharge (including overspray and runoff) of chemicals used in landscaping, such as fertilizers, herbicides, insecticides, or rodenticides into the Salt Creek Channel for the life of the project.
3. The project shall incorporate barriers along the southern border to minimize unauthorized public access, illegal trespass, or dumping into the Salt Creek Channel. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.
4. Night lighting shall be directed away from the Salt Creek Channel to protect species within this MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the Salt Creek Channel is not increased.
5. Invasive species shall not be used in landscaping in the open space area planned for the southern portion of the project. Invasive species that shall not be used in landscaping are listed in the MSHCP Final Plan, Volume 1, Table 6-2.
6. Manufactured slopes are not permitted to extend into the Salt Creek Channel.
7. Weed abatement and fuel modification zones may not encroach into the Salt Creek Channel.

7.1.7 - Best Management Practices

MM BIO-7 Implement MSHCP Best Management Practices

Project personnel shall implement the following standard Multiple Species Habitat Conservation Plan (MSHCP) Best Management Practices (BMPs) during the construction phase of the proposed project:

1. A condition shall be placed on grading permits requiring a qualified Biologist to conduct Worker Environmental Awareness Program (WEAP) training for project personnel prior to grading. The training shall include a description of the species of concern and its habitats, the general provisions of the Endangered Species Act and the MSHCP, the need to adhere to the provisions of the Endangered Species Act and the MSHCP, the penalties associated with violating the provisions of the Endangered Species Act, the general measures that are being implemented to conserve the species of concern as they relate to the proposed project, and the access routes to and project site boundaries within which the proposed project activities must be accomplished.
2. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.
3. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat.

4. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project-related spills of hazardous materials shall be reported to appropriate entities including but not limited to the City, United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and/or Regional Water Quality Control Board (RWQCB), as applicable, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
5. Erodible fill material shall not be deposited into water courses. Brush, loose soils, or other similar debris material shall not be stockpiled within the stream channel or on its banks.
6. The qualified project Biologist shall monitor construction activities for the duration of the proposed project to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint.
7. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species.
8. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
9. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
10. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the proposed project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.
11. The City shall have the right to access and inspect the project site to determine its compliance with project approval conditions, including these BMPs.

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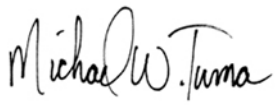
SECTION 8: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this Biological Resources Assessment and MSHCP Consistency Analysis, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: July 22, 2024 Signed:



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Appendix A: Personnel Qualifications

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MICHAEL TUMA, PHD, CWB, RPA—PRINCIPAL BIOLOGIST

OVERVIEW

- More than 26 years of experience
- Experience leading teams in large data collection and analysis efforts

Education

- Doctor of Philosophy, Integrative and Evolutionary Biology, University of Southern California, Los Angeles, CA, 2016
- Master of Science, Anthropology, University of Southern Mississippi, Hattiesburg, MS, 1998
- Master of Science, Zoology, Eastern Illinois University, Charleston, IL, 1993
- Bachelor of Science, Zoology, Truman State University, Kirksville, MO, 1991

Permits, Authorizations, and Certifications

- Certified Wildlife Biologist, The Wildlife Society, 2013–present
- Certified Significant Ecological Areas Technical Advisory Committee (SEATAC) Biota Report Preparer, Los Angeles County Department of Regional Planning, 2008–present
- Qualified Biologist, San Bernardino County, 2007–present
- Authorized Biological Consultant, Riverside County, 2006–present
- Authorized Biologist for Agassiz's desert tortoise activities under 10(a)1(A) Recovery Permits (former) and Biological Opinions, US Fish and Wildlife Service (USFWS), August 2005–present
- California Scientific Collecting Permit/California Endangered Species Act (ESA)-Memorandum of Understanding, California Department of Fish and Wildlife (CDFW), August 2005–present

Trainings and Workshops

- ArcGIS Training Courses, Esri Academy, 2016–present
- Desert Tortoise Health Assessments for Translocation Projects, Desert Tortoise Council, 2015
- CEQA Workshop, Association of Environmental Professionals, 2008
- Endangered Species: Regulation, Conservation Planning, and Permits for Development, University of California, Los Angeles Extension, 2008
- Desert Tortoise Health Assessment and Phlebotomy Training, US Geographical Survey (USGS), 2007
- Endangered Species Permitting: Strategies and Successful Negotiations Workshop, The Wildlife Society, 2006
- A/E/C Project Management Bootcamp, PSMJ Resources, Inc., 2006
- Introduction to CEQA: A Step-by-Step Approach Workshop, SCWA, 2005
- Western Pond Turtle Workshop: Ecology and Conservation, The Wildlife Society, 2005
- Surveying, Monitoring, and Handling Techniques Workshop, Desert Tortoise Council, 2004

Professional Affiliation

- Adjunct Professor, University of Southern California, March 2019–present
- Chair, Board of Directors, Desert Tortoise Council, February 2018–February 2020
- Chair, Media Committee, Desert Tortoise Council, June 2017–present
- Chair, Grants Committee, Desert Tortoise Council, January 2016–present
- Board of Directors Member, Desert Tortoise Council, January 2014–present
- Newsletter Editor, Desert Tortoise Council, January 2014–January 2018

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MICHAEL TUMA, PHD, CWB, RPA—PRINCIPAL BIOLOGIST

Michael Tuma, PhD, CWB, RPA, has more than 26 years of experience as a professional scientist in academic settings, agency positions, and as an environment consultant. He assists clients in complying with laws such as the ESA, the National Historic Preservation Act, CEQA, and NEPA. He has experience in a wide variety of technical biological work, including rare plant surveys and botanical inventories, habitat restoration planning and implementation, field data collection, population and habitat modeling, and technical biological reporting. He is a proficient project and client manager with experience in a diversity of market sectors, including land management, renewable energy, transportation, water infrastructure, gas and mineral extraction, and land development. Dr. Tuma has led teams in the implementation of studies and documentation in support of permitting and compliance with numerous environmental laws, including the Federal Endangered Species Act, California Endangered Species Act, NEPA, CEQA, and Migratory Bird Treaty Act, among many others. Dr. Tuma is an experienced leader and has supervised and mentored groups of biologists. He has directed teams on large and long-term projects and mentored junior staff on issues pertaining to project management, technical studies and documentation, and regulatory processes. He has led and mentored large groups of volunteers and international biologists on learning advanced data collection techniques and has experience leading a non-profit organization with more than 350 members. Dr. Tuma is skilled in project management, statistics, geographic information systems (GIS), and computer modeling. He has a passion for educating the public about science, and has been providing tutoring sessions, workshops, and lectures for more than 20 years.

RELATED EXPERIENCE AND CLIENT SUMMARY

Biological, Archaeological, and Paleontological Monitoring and Reporting Services for the Los Angeles Regional Interoperable Communications System, Los Angeles County, CA

FCS provided monitoring and reporting services during the construction of more than 150 land mobile radio (LMR) facilities at sites located primarily in Los Angeles County. The LMR sites contain the infrastructure and equipment necessary to provide voice communications coverage throughout the County for emergency responders. These locations are widely dispersed across the County in both urban (intensively developed) and rural (less developed) settings and include coastal locations, sites in downtown Los Angeles, remote mountain peaks across the County, and the northern high desert. FCS conducted the biological, archaeological, and paleontological pre-construction and construction monitoring and reporting services in accordance with the Construction Management Requirements outlined in the NEPA Environmental Assessment that FCS prepared for the project.

Dr. Tuma served as Biological Monitor for this project in 2020. His responsibilities included implementing mitigation measures and ensuring project compliance in support of the LA-RICS LMR System in Los Angeles County, California. Dr. Tuma monitored project for compliance for up to 33 mitigation measures, including performing clearance surveys for special status species, pre-construction nesting bird surveys, and several measures pertaining to California condor (*Gymnogyps californianus*) conservation, including condor hazing.

Other Relevant FCS Projects

- Port of Los Angeles Industrial Project Bird's Nest Survey, City of Los Angeles, CA
- Alton Parkway Logistics Facility Project IS/MND and Technical Studies, City of Irvine, CA
- Quick N Clean Car Wash Project IS/MND and Technical Studies, City of Adelanto, CA
- Bridge Point Peer Review of EIR and Technical Reports, City of Rancho Cucamonga, CA

- Redlands Residential Project Biological and Cultural Due Diligence, City of Redlands, CA
- Lilac Avenue Warehouse Due Diligence Memoranda, City of Rialto, CA
- Barton Road Logistics Center Project EIR, Technical Studies, and Peer Review, City of Colton, CA
- Griswold Residential Project Constraints Analysis, Unincorporated Los Angeles County, CA

Prior Work Experience

Santa Susana Field Laboratory, Boeing (through contract with MWH Americas, Inc.), Ventura County, CA

Dr. Tuma served as the Project Manager for this project between 2006 and 2008. Under one task he designed and conducted field investigations on the extent and size of Braunton's milk-vetch (*Astragalus brauntonii*) population within an area of a USFWS-proposed designated Critical Habitat. He led field efforts, which included conducting vegetation mapping, delineating the Braunton's milk-vetch population within the proposed area, estimating the population size with the use of randomized transects and quadrats, conducting a complete vascular plant inventory within the study area, and authoring a technical report detailing the results of the investigation, which were used by the client in commenting on the proposed area of designated Critical Habitat. Dr. Tuma performed other tasks under this project, including nesting bird surveys, pre-construction surveys for special status species, and a revegetation/mitigation effort for the California Rare Santa Susana tarplant.

Environmental Generalist Services Task Order Contract, California Department of Transportation District 7, Los Angeles and Ventura Counties, CA

Dr. Tuma served as a Senior Biologist for this two-year on-call environmental services contract with the California Department of Transportation (Caltrans) District 7 between 2014 and 2015. While serving in this capacity, contributed to two task orders in support of the State Route 138 NW project, which consists of protocol desert tortoise, burrowing owl, and rare plant surveys and an analysis of wildlife crossing and movements on State Route (SR) 138 between SR 14 and Interstate 5. Dr. Tuma led in the field surveys, planned field and desktop analyses, directed a group of biologists and GIS specialists, and served as primary author of the deliverables produced for these task orders.

Dune Palms Road Crossing Replacement, Caltrans (through contract with Parsons Brinckerhoff), Riverside County, CA

Dr. Tuma served as the Project Manager for this project in 2014 and 2015. He was responsible for coordinating natural resources studies and agency consultation in support of the preparation of a Caltrans Natural Environment Study (NES). Project tasks included a general biological survey, focused surveys for burrowing owl and rare plants, trapping efforts for Palm Springs round-tailed ground squirrel (*Spermophilus tereticaudus*) and Palm Springs pocket mouse, a jurisdictional waters/habitats determination, agency consultation, preparation of a Biological Assessment in support of Section 7 consultation, documentation of study results, and preparation of the NES.

Desert Quartzite Solar Energy Project EIR/EIS and Biological Studies, First Solar, Inc., Riverside County, CA

Dr. Tuma served as the Project Manager for this project in 2015 and 2016, and was responsible for client management, biological studies, technical report preparation, and CEQA/NEPA documentation for a large-scale development in east Riverside County, California. His specific duties included reviewing studies prepared by prior consultants, conducting updated field surveys (vegetation mapping, rare plant, and desert tortoise surveys) and technical studies, and preparing the EIR/EIS Biological Resources

section and appendices (Invasive Weed Management Plan, Raven Management Plan, Desert Tortoise Translocation Plan, Desert Kit Fox and American Badger Management Plan, Rare Plant Management Plan, and Vegetation Restoration Plan).

Edom Hills Wind Energy Facility, BP Wind Energy North America, Inc., Riverside County, CA

Dr. Tuma served as the Project Manager and Lead Authorized Biologist for this project in 2016 and was responsible for conducting a habitat assessment, eolian dune characterization study, and biological monitoring of project activities in support of minimizing the potential for take of Coachella Valley fringe-toed lizard (*Uma inornata*) and Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*) during the installation of equipment in two project turbines. He coordinated with the BLM project Biologist to gain approval of biologists to monitor the work, and concurrence for the recommended mitigation measures, which included removing wind-blown sands from portions of the access road and placing the sand in adjacent areas where they could continue transport in the eolian ecosystem. He authored a post-construction memorandum that detailed the restoration of the eolian sand and avoidance of sensitive microhabitats where fringe-toed lizards typically hibernate during the project activities.

High Desert Solar Project, Middle River Power (through contract with AECOM), San Bernardino County, CA

Dr. Tuma served as the Lead Authorized Biologist for this project in 2020. He led the implementation of a desert tortoise translocation program in support of the High Desert Solar Project site in Victorville, San Bernardino County, California. The effort consists of performing protocol health assessments, collecting blood samples for disease testing, translocating tortoises from the development area to an off-site location in the Kramer Hills in the Fremont-Kramer Critical Habitat Unit, and monitoring them following translocation. Additional tasks included transplanting western Joshua trees from the project site, and monitoring of Environmentally Sensitive Areas established around active desert kit fox dens and burrowing owl burrows.

Agassiz's Desert Tortoise Population Modeling and Conservation Planning for the Superior-Cronese and Gold Butte-Pakoon Critical Habitat Units, BLM, San Bernardino County, CA, Clark County, NV, and Mohave County, AZ

As the Project Manager, Client Manager, and Principal Investigator of this project, Dr. Tuma conducted research into the population biology of Agassiz's desert tortoises on two study areas that comprise federal lands administered by the BLM between 2008 and 2013. He directed a team of more than 40 biologists, statisticians, and GIS specialists who contributed to the project; successfully developed spatially explicit, individual-based population models used to rank the importance of site-specific threats at each of the study areas; and served as the primary author of the technical report deliverables. This project consisted of collecting field data, compiling GIS data, conducting intensive literature reviews and expert interviews, and developing tortoise occurrence models, population models, and threats models for study areas that included the Superior-Cronese Critical Habitat Unit in San Bernardino County, California, and the Gold Butte-Pakoon Critical Habitat Unit in Clark County, Nevada, and Mohave County, Arizona. The modeling effort allowed Dr. Tuma to simulate the effects of site-specific threats on tortoise populations at each study area and develop land management and species conservation strategies that could be implemented by the BLM Field and State Offices on tortoise populations within each Critical Habitat Unit. He presented the research at the annual meetings of the Desert Tortoise Council, The Wildlife Society, and the World Congress of Herpetology, and published a manuscript in the Journal of Wildlife Management in early 2016.

Appendix B: Site Photographs

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Photograph 1: View of irrigated cropland from the northeast corner of the project site, facing west.

Photograph 2: View of irrigated cropland and drainage ditch from the northeast corner of the project site, facing south.

Photograph 3: View of Salt Creek Channel from the southern border of the project site, facing south.

Photograph 4: View of irrigated cropland and ruderal area from the southeast corner of the project site, facing north.

Photograph 5: View of irrigated cropland and ruderal area along Olive Avenue from the southeast corner of the project site, facing west.

Photograph 6: View of irrigated cropland from the southwest corner of the project site, facing southeast.

Photograph 7: View of irrigated cropland from the southwest corner of the project site, facing north.

Photograph 8: View of irrigated cropland along the border with residential development from the northwest corner of the project site, facing south.

Photograph 9: View of irrigated cropland and ruderal areas along Simpson Road from the northwest corner of the project site, facing east.

Photograph 10: View of burrow located within the wheat field on the project site.

Photograph 11: View of existing drainage outfall along the eastern border.

Photograph 12: View of proposed eastern outfall location.

Photograph 13: View of existing western outfall.

Photograph 14: View of proposed western outfall location.

Appendix C:
Special-status Species Tables

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Table 1: Special-status Plant Species Potentially Occurring within the Project Site

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Bryophytes						
Geothallus tuberosus Campbell's liverwort	—	—	1B.1	Ephemeral liverwort found in coastal scrub (mesic) and vernal pools. Elevation: 10–600 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Sphaerocarpos drewiae bottle liverwort	—	—	1B.1	Ephemeral liverwort found in openings in chaparral and coastal scrub. Elevation: 90–600 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Tortula californica California screw moss	—	—	1B.2	Moss found in sandy soils in chenopod scrub and valley and foothill grassland. Elevation: 10 –1,460 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are two recent records between 5 and 10 miles from the project site.	No
Dicots						
Abronia villosa var. *aurita* chaparral sand-verbena	—	—	1B.1	Annual herb found in sandy soils in chaparral, coastal scrub, and desert dune communities. Bloom period: March–September Elevation: 75–1,600 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one recent record within 5 miles of the project site and one recent and two historical records between 5 and 10 miles from the project site.	No
Almutaster pauciflorus alkali marsh aster	—	—	2B.2	Perennial herb found in alkaline soils in meadows and seeps. Bloom period: June–October Elevation: 240–800 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Ambrosia pumila San Diego ambrosia	MSHCP	—	1B.1	Perennial, rhizomatous herb found in chaparral, coastal scrub, valley and foothill grassland, and vernal pool communities. Bloom period: April–October Elevation: 20–415 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are two recent records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Amsinckia douglasiana Douglas' fiddleneck	—	—	4.2	Annual herb found in dry areas in cismontane woodland and valley and foothill grassland. Bloom period: March–May Elevation: 0–1,950 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Arctostaphylos rainbowensis Rainbow manzanita	MSHCP	—	1B.1	Perennial evergreen shrub found in chaparral. Bloom period: December–March Elevation: 205–670 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Astragalus pachypus var. *jaegeri* Jaeger's milk-vetch	MSHCP	—	1B.1	Perennial shrub found in rocky (sometimes) and sandy (sometimes) soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Bloom period: December–June Elevation: 365–975 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Atriplex coronata var. *notatior* San Jacinto Valley crownscale	FE MSHCP	—	1B.1	Annual herb found in alkaline soils in playas, in mesic, alkaline soils in valley and foothill grassland, and in vernal pools. Bloom period: April–August Elevation: 139–500 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are two recent and one historical records within 5 miles of the project site and four recent records between 5 and 10 miles from the project site.	No
Atriplex parishii Parish's brittlescale	MSHCP	—	1B.1	Annual herb found in alkaline soils in chenopod scrub, playas, and vernal pools. Bloom period: June – October Elevation: 25–1,900 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one historical record within 5 miles of the project site and one recent and two historical records between 5 and 10 miles from the project site.	No
Atriplex serenana var. *Davidsonii* Davidson's saltscale	MSHCP	—	1B.2	Annual herb found in alkaline soils in coastal bluff scrub and coastal scrub. Bloom period: April–October Elevation: 10–200 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are three recent and two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Ayenia compacta California ayenia	—	—	2B.3	Perennial herb found in rocky soils in Mojavean desert scrub and Sonoran desert scrub. Bloom period: March–April Elevation: 150–1,095 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Berberis nevinii Nevin's barberry	FE MSHCP	SE	1B.1	Perennial, evergreen shrub found on steep, north-facing slopes or in low-grade sandy washes in coastal scrub, chaparral, cismontane woodland, and riparian scrub communities. Bloom period: March–June Elevation: 290–1,575 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Caulanthus simulans Payson's jewelflower	MSHCP	—	4.2	Annual herb found in granitic and sandy soils in chaparral and coastal scrub communities. Bloom period: March–May Elevation: 90–2,200 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are three historical records within 5 miles of the project site and four historical records between 5 and 10 miles from the project site.	No
Centromadia pungens ssp. *laevis* smooth tarplant	MSHCP	—	1B.1	Annual herb found in alkali meadow and alkali scrub communities, and disturbed places in valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland communities. Bloom period: April–September Elevation: 0–640 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are 18 recent and seven historical records within 5 miles of the project site and 23 recent and 15 historical records between 5 and 10 miles from the project site.	No
Chorizanthe leptotheca peninsular spineflower	MSHCP	—	4.2	Annual herb found in granitic soils in chaparral, coastal scrub, and lower montane coniferous forest communities. Bloom period: May–August Elevation: 300–1,900 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Chorizanthe parryi var. *parryi* Parry's spineflower	MSHCP	—	1B.1	Annual herb found in chaparral, coastal scrub, cismontane woodland, and valley and foothill grassland communities. Bloom period: April–June Elevation: 275–1,220 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are five recent and five historical records within 5 miles of the project site and 25 recent and 12 historical records between 5 and 10 miles from the project site.	No
Chorizanthe polygonoides var. *longispina* long-spined spineflower	MSHCP	—	1B.2	Annual herb that occurs in valley and foothill grassland, coastal scrub, chaparral, meadows and seeps, and vernal pools. Bloom period: April–July Elevation: 30–1,530 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are four recent records within 5 miles of the project site and 27 recent and three historical records between 5 and 10 miles from the project site.	No
Clinopodium chandleri San Miguel savory	MSHCP	—	1B.2	Perennial shrub found in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Sometimes in gabbroic and rocky soils. Bloom period: March–July Elevation: 120–1,075 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Convolvulus simulans small-flowered morning-glory	MSHCP	—	4.2	Annual herb found in clay soils, seeps, and serpentine soils in openings in chaparral, coastal scrub, and valley and foothill grassland. Bloom period: March–July Elevation: 30–740 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Cryptantha wigginsii Wiggins' cryptantha	—	—	1B.2	Annual herb found in clay (often) soils in coastal scrub. Bloom period: February–June Elevation: 20–275 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species. There is one historical record between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Deinandra paniculata paniculate tarplant	—	—	4.2	Annual herb found in sandy soils (sometimes) and in vernally mesic soils (usually) in coastal scrub, valley and foothill grassland, vernal pool communities. Bloom period: April–November Elevation: 25–940 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Dodecahema leptoceras slender-horned spineflower	FE MSHCP	SE	1B.1	Annual herb found in sandy soils in chaparral, coastal scrub and cismontane woodland communities. Bloom period: April–June Elevation: 200–760 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Dudleya multicaulis many-stemmed dudleya	MSHCP	—	1B.2	Perennial herb found in clay soils (usually) in chaparral, coastal scrub, and valley and foothill grassland communities. Bloom period: April–July Elevation: 15–790 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Eryngium aristulatum var. *parishii* San Diego button-celery	FE MSHCP	CE	1B.1	Annual/perennial herb found in mesic soils in coastal scrub, valley and foothill grassland, and vernal pools. Bloom period: April–June Elevation: 20–620 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Erythranthe diffusa Palomar monkeyflower	MSHCP	—	4.3	Annual herb found in gravelly and sandy soils (sometimes) in chaparral and lower montane coniferous forest communities. Bloom period: April–June Elevation: 1,220–1,830 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species.	No
Harpagonella palmeri Palmer's grapplinghook	MSHCP	—	4.2	Annual herb found in clay soils and openings in chaparral, coastal scrub, and valley and foothill grassland communities. Bloom period: March–May Elevation: 20–955 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are six historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Holocarpha virgata ssp. *elongata* graceful tarplant	MSHCP	—	4.2	Annual herb found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Bloom period: May–November Elevation: 60–1,100 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Juglans californica southern California black walnut	MSHCP	—	4.2	Perennial, deciduous tree found in chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. Bloom period: March–August Elevation: 50–900 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	MSHCP	—	1B.1	Annual herb found in marshes and swamps, playas, and vernal pools. Bloom period: February–June Elevation: 1–1,220 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are three recent records within 5 miles of the project site and eight recent and five historical records between 5 and 10 miles from the project site.	No
Lathyrus splendens pride-of-California	—	—	4.3	Perennial herb found in chaparral. Bloom period: March–June Elevation: 200–1,525 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	—	—	4.3	Dicot annual herb found in dry soils in chaparral and coastal scrub communities. Bloom period: January–July Elevation: 1–855 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one recent record within 5 miles of the project site and two recent and eight historical records between 5 and 10 miles from the project site.	No
Limnanthes alba ssp. *parishii* Parish's meadowfoam	MSHCP	CE	1B.2	Annual herb found in vernally mesic soils in lower montane coniferous forest, meadows and seeps, and vernal pools. Bloom period: April–June Elevation: 600–2,000 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Microseris douglasii ssp. *platycarpha* small-flowered microseris	MSHCP	—	4.2	Annual herb found in clay soils in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pool communities. Bloom period: March–May Elevation: 15–1,070 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Monardella hypoleuca ssp. *intermedia* intermediate monardella	—	—	1B.3	Perennial rhizomatous herb that occurs in chaparral, cismontane woodland, and lower montane coniferous forest communities. Bloom period: April–September Elevation: 400–1,250 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Myosurus minimus ssp. *apus* little mousetail	MSHCP	—	3.1	Annual herb found in alkaline soils in valley and foothill grassland and vernal pools. Bloom period: March–June Elevation: 20– 640 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one historical record within 5 miles of the project site and two historical records between 5 and 10 miles from the project site.	No
Nama stenocarpa mud nama	MSHCP	—	2B.2	Annual/perennial herb found in marshes and swamps (lake margins, riverbanks). Bloom period: January–July Elevation: 5–500 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Navarretia fossalis spreading navarretia	FT	—	1B.1	Chenopod scrub, marshes and swamps (shallow freshwater), playas, and vernal pools. Bloom period: April–June Elevation: 30–655 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are four recent and two historical records within 5 miles of the project site and 13 recent and two historical records between 5 and 10 miles from the project site.	No
Navarretia prostrata prostrate vernal pool navarretia	MSHCP	—	1B.2	Annual herb found in mesic soils in coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), and vernal pools. Bloom period: April–July Elevation: 3–1,210 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Polygala cornuta var. *fishiae* Fish's milkwort	MSHCP	—	4.3	Perennial deciduous shrub found in chaparral, cismontane woodland, and riparian woodland communities. Bloom period: May–August Elevation: 100–1,000 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Pseudognaphalium leucocephalum white rabbit-tobacco	—	—	2B.2	Perennial herb found in gravelly and sandy soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. Bloom period: August–November Elevation: 0–2,100 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Quercus engelmannii Engelmann oak	MSHCP	—	4.2	Perennial, deciduous tree found in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland communities. Bloom period: March–June Elevation: 50–1,300 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Romneya coulteri Coulter's matilija poppy	MSHCP	—	4.2	Perennial, rhizomatous herb found in chaparral and coastal scrub, often in burned areas. Bloom period: March–July Elevation: 20–1,200 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Scutellaria bolanderi ssp. *austromontana* southern mountains skullcap	—	—	1B.2	Perennial rhizomatous herb found in mesic soils in chaparral, cismontane woodland, and lower montane coniferous forest. Bloom period: June–August Elevation: 425–2,000 m	**None:** The project site does not contain suitable habitat to support occurrence of this species	No
Sibaropsis hammittii Hammitt's clay-cress	MSHCP	—	1B.2	Annual herb found in clay soils in chaparral (openings) and valley and foothill grassland. Bloom period: March–April Elevation: 720–1,065 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Sidalcea neomexicana salt spring checkerbloom	—	—	2B.2	Perennial herb found in alkaline and mesic soils in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Bloom period: March–June Elevation: 15–1,530 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one historical record between 5 and 10 miles from the project site.	No
Symphyotrichum defoliatum San Bernardino aster	—	—	1B.2	Perennial, rhizomatous herb found in banks of ditches, streams, and springs in cismontane woodlands, coastal scrub, lower montane coniferous forests, meadows and seeps, marshes and swamps, and vernally mesic valley and foothill grassland communities. Bloom period: July–November Elevation: 2–2,040 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Trichocoronis wrightii var. *Wrightii* Wright's trichocoronis	MSHCP	—	2B.1	Annual herb found in alkaline soils in meadows and seeps, marshes and swamps, riparian forest, and vernal pools. Bloom period: May–September Elevation: 5–435 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one recent and two historical records between 5 and 10 miles from the project site.	No
Viguiera laciniata San Diego County viguiera	—	—	4.3	Perennial shrub found in chaparral and coastal scrub communities. Bloom period: February–June Elevation: 60–750 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Gymnosperms						
Hesperocyparis forbesii Tecate cypress	—	—	1B.1	Perennial, evergreen tree found in clay and gabbroic (sometimes) soils in closed-cone coniferous forest and chaparral communities. Elevation: 80–1,500 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Lichens						
Texosporium sancti-jacobi woven-spored lichen	—	—	3	Crustose lichen found in chaparral in openings. On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Elevation: 60–660 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Monocots						
Allium marvinii Yucaipa onion	MSHCP	—	1B.2	Perennial, bulbiferous herb found in clay soils and openings in chaparral. Bloom period: April–May Elevation: 760–1,065 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species.	No
Allium munzii Munz's onion	FE MSHCP	CT	1B.1	Perennial, bulbiferous herb found in clay and mesic soils in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Bloom period: March–May Elevation: 297–1,070 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There is one recent and one historical record within 5 miles of the project site and four recent and two historical records between 5 and 10 miles from the project site.	No
Brodiaea filifolia thread-leaved brodiaea	FT MSHCP	CE	1B.1	Perennial, bulbiferous herb found in clay soils in chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. Bloom period: March–June Elevation: 25–1,120 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are six recent and two historical records between 5 and 10 miles from the project site.	No
Brodiaea santarosae Santa Rosa basalt brodiaea	—	—	1B.2	Perennial bulbiferous herb found in valley and foothill grassland. Bloom period: May–June Elevation: 565–1,045 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Calochortus catalinae Catalina mariposa-lily	—	—	4.2	Perennial, bulbiferous herb found in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland communities. Bloom period: March–June Elevation: 15–700 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Calochortus plummerae Plummer's mariposa-lily	MSHCP	—	4.2	Perennial, bulbiferous herb found in granitic and rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland communities. Bloom period: May–July Elevation: 100– 1,700 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Calochortus weedii var. *intermedius* intermediate mariposa-lily	MSHCP	—	1B.2	Perennial, bulbiferous herb that occurs on calcareous soils on rocky sites in coastal scrub, chaparral, and valley and foothill grassland habitats. Bloom period: May–July Elevation: 105–855 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are four recent and one historical records between 5 and 10 miles from the project site.	No
Carex buxbaumii Buxbaum's sedge	—	—	4.2	Perennial, rhizomatous herb found in bogs and fens, meadows and seeps in mesic soils, and marshes and swamps. Bloom period: March–August Elevation: 3–3,300 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Hordeum intercedens vernal barley	MSHCP	—	3.2	Annual herb found in coastal dunes, coastal scrub, valley and foothill grassland in depressions and saline flats, and vernal pools. Bloom period: March–June Elevation: 5–1,000 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Juncus acutus ssp. *leopoldii* southwestern spiny rush	—	—	4.2	Perennial rhizomatous herb found in coastal dunes (mesic), coastal scrub, meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt). Bloom period: May–June Elevation: 3–900 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Juncus luciensis Santa Lucia dwarf rush	—	—	1B.2	Annual herb found in chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. Bloom period: April–July Elevation: 300–2,040 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Lilium humboldtii ssp. *ocellatum* ocellated Humboldt lily	MSHCP	—	4.2	Perennial, bulbiferous herb found in openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland communities. Bloom period: March–July Elevation: 30–1,800 m	**None:** The project site does not contain suitable habitat to support occurrence of this species.	No
Lilium parryi lemon lily	MSHCP	—	1B.2	Perennial bulbiferous herb found in mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest. Bloom period: July–August Elevation: 1,220–2,745 m	**None:** The project site is outside of the known elevation range of this species and does not contain suitable habitat to support occurrence of this species.	No
Orcuttia californica California Orcutt grass	MSHCP	—	1B.1	Annual herb found in vernal pools. Bloom period: April–August Elevation: 15–660 m	**None:** The project site does not contain suitable habitat to support occurrence of this species. There are two recent and two historical records within 5 miles of the project site and one recent and two historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			

Code Designations

[1] Federal Status: 2023 USFWS Listing

- **FE** = Listed as endangered under Federal Endangered Species Act.
- **FT** = Listed as threatened under the Endangered Species Act.
- **FC** = Candidate for listing (threatened or endangered) under the Endangered Species Act.
- **FD** = Delisted in accordance with the Endangered Species Act.
- **FPD** = Federally Proposed to be Delisted.
- **MSHCP** = Covered under the Western Riverside County MSHCP
- **—** = Not federally listed

[2] State Status: 2023 CDFW Listing

- **SE** = Listed as endangered under California Endangered Species Act (CESA).
- **ST** = Listed as threatened under CESA.
- **SC** = Candidate for listing (endangered or threatened) under CESA.
- **CR** = Rare in California.
- **—** = Not State-listed

[3] CNPS: 2023 CNPS Listing

- **Rank 1A** = Plants species that presumed extinct in California.
- **Rank 1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.
- **Rank 2** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
- **Rank 3** = Plants about which we need more information—A Review List
- **Rank 4** = Plants of limited distribution—A Watch List

Blooming period: Months in parentheses are uncommon.

[3] **Habitat description**: Habitat description adapted from California Natural Diversity Database (CNDDB) (CDFW 2023) and California Native Plant Society (CNPS) online inventory (CNPS 2023).

Table 2: Special-status Wildlife Species Potentially Occurring within the Project

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
Insects/Invertebrates					
Bombus crotchii Crotch bumble bee	—	SC	Occurs in grassland and scrubland habitats. Nests in abandoned rodent burrows.	**Low.** Marginal habitat for this species is present in ruderal areas on the project site. There is one historical record within 5 miles of the project site and one recent and five historical records between 5 and 10 miles from the project site.	No
Danaus plexippus monarch butterfly	FC	—	Occurs in grasslands, open fields, and meadows that support milkweed (primarily *Asclepias* spp.) host plants. Long distance migrant. Overwinters on the Southern California coast and clusters in trees, with a preference for native trees, pines, and eucalyptus trees.	**Low.** No milkweed is present on project site therefore species would only occur as a transient.	No
Euphydryas editha quino quino checkerspot butterfly	FE MSHCP	—	Occurs in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub habitats. Larval host plants are native species of plantain.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records within 5 miles of the project site and four recent and 11 historical records between 5 and 10 miles from the project site.	No
Neolarra alba white cuckoo bee	—	—	Unknown habitat requirements, but probably inhabits a variety of grassland and scrub habitats. Parasitizes nests of other bees.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Socalchemmis icenoglei Icenogle's socalchemmis spider	—	—	Known only from the type locality in the vicinity of Winchester, Riverside County.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records within 5 miles of the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
Crustaceans					
Branchinecta lynchi vernal pool fairy shrimp	FT MSHCP	—	Small vernal pools with cool water (10ºC), moderate alkalinity and conductivity, and less than 1 m deep.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of vernal pools. There is one recent record within 5 miles of the project site and two recent records between 5 and 10 miles from the project site.	No
Branchinecta sandiegonensis San Diego fairy shrimp	FE	—	Small, shallow (5-30 cm deep) vernal pools with cool water (10-20ºC), moderate alkalinity and conductivity, and less than 1 m deep.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of vernal pools. There is one recent record between 5 and 10 miles from the project site.	No
Streptocephalus woottoni Riverside fairy shrimp	FE MSHCP	—	Vernal pools on the Santa Rosa Plateau on Murrieta stony clay loams, Las Posas series, Wyman clay loam, and Willows soils.	**None.** Suitable habitat for this species is not present on or adjacent to the project site due to the lack of vernal pools. There are two recent and one historical records within 5 miles of the project site and 11 recent and one historical records between 5 and 10 miles from the project site.	No
Amphibians					
Spea hammondii western spadefoot	MSHCP	SSC	Occurs in open areas with sandy or gravelly soils in mixed woodlands, grasslands, coastal sage and Riversidean alluvial fan sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Breeds in ephemeral rain pools that do not contain bullfrogs, fish, or crayfish.	**Moderate.** Suitable upland habitat for this species is present on the project site and potential breeding habitat is located directly adjacent to the project site. There are 12 recent and one historical records within 5 miles of the project site and 23 recent and 10 historical records between 5 and 10 miles from the project site.	Yes

Scientific Name Common Name	Status		Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Reptiles					
Anniella stebbinsi southern California legless lizard	—	SSC	Occurs in moist, loose soil in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. Tolerant of disturbances.	**Low.** Marginally suitable habitat for this species is present in ruderal areas on and adjacent to the project site. There are two recent records within 5 miles of the project site and one recent and one historical record between 5 and 10 miles from the project site.	No
Arizona elegans occidentalis California glossy snake	—	SSC	Occurs in areas of rocky washes and loose, sandy soils and for burrowing in desert scrub grassland, coastal sage and Riversidean alluvial fan sage scrub, and chaparral habitats. Prefer open sandy areas with scattered brush, but also found in rocky areas.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three recent and seven historical records between 5 and 10 miles from the project site.	No
Aspidoscelis hyperythra orange-throated whiptail	MSHCP	WL	Occurs primarily on coarse soils in open coastal sage and Riversidean alluvial fan sage scrub habitat.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are four recent and seven historical records within 5 miles of the project site and three recent and 21 historical records between 5 and 10 miles from the project site.	No
Aspidoscelis tigris stejnegeri San Diegan tiger whiptail	—	SSC	Occurs in dry, open areas with sparse foliage in coastal sage and Riversidean alluvial fan sage scrub, chaparral, woodland, and riparian habitats.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are three historical records within 5 miles of the project site and four historical records between 5 and 10 miles from the project site.	No
Coleonyx variegatus abbotti San Diego banded gecko	MSHCP	SSC	Prefers rocky areas in coastal sage and chaparral.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records between 5 and 10 miles from the project site.	No
Crotalus ruber red-diamond rattlesnake	MSHCP	SSC	Occurs in arid, rocky areas in creosote scrub, coastal sage and Riversidean alluvial fan sage scrub, chaparral, oak and pine woodlands, grasslands, on cultivated areas.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and four historical records within 5 miles of the project site and	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
				one recent and seven historical records between 5 and 10 miles from the project site.	
Emys marmorata western pond turtle	MSHCP	SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent and two historical records between 5 and 10 miles from the project site.	No
Phrynosoma blainvillii coast horned lizard	MSHCP	SSC	Occurs in open areas with sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records within 5 miles of the project site and nine recent and 14 records between 5 and 10 miles from the project site.	No
Birds					
Accipiter cooperii Cooper's hawk	MSHCP MBTA	WL FGC	Occurs and nests in deciduous and mixed forests and open woodland habitats. Year-round resident in Southern California, and tolerant of urban areas with an abundance of trees.	**Moderate.** Suitable foraging and nesting habitat for this species is present in trees adjacent to and within 500 feet of the project site. There is one recent and one historical record between 5 and 10 miles from the project site.	Yes
Agelaius tricolor tricolored blackbird	MSHCP MBTA	ST SSC FGC	Occurs and nests in large freshwater marshes with dense stands of hydrophytic vegetation (cattails, bulrushes, etc.). Short-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are six recent records between 5 and 10 miles from the project site.	No
Aimophila ruficeps canescens southern California rufous-crowned sparrow	MSHCP MBTA	WL FGC	Occurs and nests on steep, often rocky hillsides with grass and forb patches in coastal sage and Riversidean alluvial fan sage scrub and sparse mixed chaparral habitats. Year-round resident in southern California.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two recent and five historical records within 5 miles of the project site and 21 historical records between 5 and 10 miles from the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
Aquila chrysaetos golden eagle	BGEPA MSHCP MBTA	FP WL	Forages in areas of rolling foothills, mountainous areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site.	No
Artemisiospiza belli Bell's sparrow	MSHCP MBTA	WL FGC	Breeds in coastal sagebrush, chaparral, and other open, scrubby habitats in Southern California mountains, deserts and valleys.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are one recent and three historical records within 5 miles of the project site and 15 historical records between 5 and 10 miles from the project site.	No
Athene cunicularia burrowing owl	MSHCP MBTA	SSC FGC	Occurs and nests in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel. Short-distance migrant.	**Moderate.** Suitable burrowing and nesting habitat for this species is present on the project site in fallowed and ruderal areas supporting California ground squirrel burrows. There are 49 recent and six historical records within 5 miles of the project site and 27 recent and 10 historical records between 5 and 10 miles from the project site.	Yes
Buteo regalis ferruginous hawk	MSHCP MBTA	WL	Grassland and arid shrublands with an abundance of prey species, such as pocket gophers, black-tailed jackrabbits, and desert cottontails. Will winter near cultivated fields that have an abundance of pocket gophers. Winter resident in southern California.	**Moderate.** Suitable winter foraging habitat for this species is present on the project site. There are four recent and one historical records within 5 miles of the project site.	Yes
Circus hudsonius northern harrier	MSHCP MBTA	SSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**Low.** Marginally suitable foraging habitat for this species is present on-site. There is one recent record within 5 miles of the project site.	No
Coccyzus americanus western yellow-billed cuckoo	FT MSHCP MBTA	SE	Inhabits wooded riparian habitats with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland and dense thickets along streams and marshes. Nests are often placed in	**None.** Suitable habitat for this species is not present on or adjacent to the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
			willows along streams and rivers, with nearby cottonwoods serving as foraging sites.		
Elanus leucurus white-tailed kite	MSHCP MBTA	FP FGC	Grasslands and open coastal scrub in coastal and valley lowlands; rarely found away from agricultural areas. Inhabits herbaceous, open stages of most habitats mostly in cismontane California. Year-round resident in southern California.	**Moderate.** Suitable foraging habitat for this species is present on-site and potentially suitable nesting habitat is present in trees adjacent to the project site. There is one recent record within 5 miles of the project site and one recent record between 5 and 10 miles from the project site.	Yes
Empidonax traillii extimus southwestern willow flycatcher	FE MSHCP MBTA	SE FGC	Occurs and nests in dense riparian woodlands. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site.	No
Eremophila alpestris actia California horned lark	MSHCP MBTA	WL FGC	Occurs and nests in open areas with sparse vegetation. Year-round resident in southern California.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent and four historical records within 5 miles of the project site seven historical records between 5 and 10 miles from the project site.	No
Haliaeetus leucocephalus bald eagle	FD BGEPA MSHCP MBTA	SE FP FGC	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Icteria virens yellow-breasted chat	MSHCP MBTA	SSC FGC	Occurs and nests in riparian thickets of willow and other bushy tangles near watercourses. Long-distance migrant.	**Low.** Marginally suitable habitat for this species is present in arroyo willow thickets in the Salt Creek channel within 500 feet of the project site. There is one recent record between 5 and 10 miles from the project site.	No
Lanius ludovicianus loggerhead shrike	MSHCP MBTA	SSC	Occurs and nests in broken woodlands, savanna, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for	**Low.** Marginally suitable foraging habitat for this species is present on the project site. There are four recent records within 5 miles of	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
			scanning, and fairly dense shrubs and brush for nesting.	the project site and four recent records between 5 and 10 miles from the project site.	
Plegadis chihi white-faced ibis	MSHCP MBTA	SSC FGC	Occurs in shallow freshwater marsh. Requires dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent record between 5 and 10 miles from the project site.	No
Polioptila californica californica coastal California gnatcatcher	FT MSHCP MBTA	SSC FGC	Occurs and nests in arid washes, on mesas, and slopes in coastal sage scrub below 2500 ft. Year-round resident in California.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two recent and 14 historical records within 5 miles of the project site and three recent and 44 historical records between 5 and 10 miles from the project site.	No
Vireo bellii pusillus least Bell's vireo	FE MSHCP MBTA	SE FGC	Occurs and nests in low riparian habitat in the vicinity of water or in dry river bottoms. Long-distance migrant.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are arroyo willow thickets in the Salt Creek channel within 500 feet of the project site; however, the vegetation in this community is sparse and scattered and does not provide suitable habitat for least Bell's vireo. There are eight recent and four historical records between 5 and 10 miles from the project site.	No
Xanthocephalus xanthocephalus yellow-headed blackbird	MBTA	SSC	Occurs and nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record between 5 and 10 miles from the project site.	No
Mammals					
Chaetodipus californicus femoralis Dulzura pocket mouse	—	SSC	Occurs in coastal scrub, chaparral and grassland in San Diego County.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site.	No

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
Chaetodipus fallax fallax northwestern San Diego pocket mouse	MSHCP	SSC	Occurs in sandy, herbaceous areas, usually in association with rocks or coarse gravel, in coastal sage and Riversidean alluvial fan sage scrub, chaparral, and grasslands.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site and two recent and five historical records between 5 and 10 miles from the project site.	No
Dipodomys merriami parvus San Bernardino kangaroo rat	FE MSHCP	CE SSC	Occurs on sandy loam substrates on first terraces and floodplains of washes in Riversidean alluvial fan sage scrub habitat.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site and one historical record between 5 and 10 miles from the project site.	No
Dipodomys stephensi Stephens' kangaroo rat	FT MSHCP	ST	Occurs primarily in annual and perennial grasslands, but also occurs in coastal sage scrub with sparse canopy cover. Can burrow into firm soil.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one recent and 18 historical records within 5 miles of the project site and two recent and 46 historical records between 5 and 10 miles from the project site.	No
Eumops perotis californicus western mastiff bat	—	SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**Low.** Marginally suitable foraging habitat is present on the project site. There are two historical records within 5 miles of the project site and one historical record between 5 and 10 miles from the project site.	No
Lasiurus xanthinus western yellow bat	—	SSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in skirts of dead fronds in both native and non-native palm trees.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There are two historical records within 5 miles of the project site and one historical record between 5 and 10 miles from the project site.	No
Lepus californicus bennettii San Diego black-tailed jackrabbit	MSHCP	—	Occurs primarily in arid regions with short grass including open grasslands, agricultural fields, and sparse coastal scrub. Nests under bushes or shrubs that have shallow depressions.	**Moderate.** Suitable habitat for this species is present within the agricultural fields on the project site. There are six recent and three historical records within 5 miles of the project	Yes

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description3	Potential to Occur and Rationale4	Included in Impact Analysis
				site and four recent and six historical records between 5 and 10 miles from the project site.	
Onychomys torridus ramona southern grasshopper mouse	—	SSC	Occurs in desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site and one historical record between 5 and 10 miles from the project site.	No
Perognathus longimembris brevinasus Los Angeles pocket mouse	MSHCP	SSC	Occurs in open areas with fine, sandy soils in lower elevation grasslands and coastal sage and Riversidean alluvial fan sage scrub habitats.	**None.** Suitable habitat for this species is not present on or adjacent to the project site. There is one historical record within 5 miles of the project site and two historical records between 5 and 10 miles from the project site.	No

Code Designations

[1] Federal Status: 2023 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under the Endangered Species Act.
- **FT** = Listed as threatened under the Endangered Species Act.
- **FC** = Candidate for listing (threatened or endangered) under the Endangered Species Act.
- **FD** = Delisted in accordance with the Endangered Species Act.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2023 CDFW Listing

- **SE** = Listed as endangered under CESA.
- **ST** = Listed as threatened under CESA.
- **SC** = Candidate for listing (endangered or threatened) under CESA.
- **SSC** = Species of Special Concern as identified by the CDFW.
- **FP** = Listed as Fully Protected under the Fish and Game Code.
- **FGC** = protected by Fish and Game Code 3503, 3503.5, and/or 3513
- **WL** = CDFW Watch List
- **—** = Not State-listed

Notes:

[3] Habitat Description: Habitat description adapted from CNDDB or other specified source.

[4] Potential to Occur and Rationale: Location of recorded species occurrences determined by geospatial information from BIOS 6 or other specified source.

Sources:

California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://map.dfg.ca.gov/bios/. Accessed May 25, 2023.

California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed May 25, 2023.

United States Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/. Accessed May 25, 2023.

Appendix D:
Plants That Shall Not be Used in Project Landscaping

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Table D-1: Plants That Shall Not be Used in Landscaping Adjacent to the Salt Creek Channel Conservation Area

Botanical Name	Common Name
Acacia spp. (all species)	acacia
Achillea millefolium var. *millefolium*	common yarrow
Ailanthus altissima	tree of heaven
Aptenia cordifolia (also *Mesembryanthemum cordifolium*)	baby sun rose, dew plant
Arctotheca calendula	cape weed
Arctotis spp. (all species and hybrids)	African daisy, cape daisy
Arundo donax	giant reed or arundo grass
Asphodelus fistulosus	asphodel, onionweed
Atriplex glauca	waxy saltbush
Atriplex semibaccata	Australian saltbush
Carex spp. (all species*)	sedges
Carpobrotus chilensis	sea plant, sea fig
Carpobrotus edulis	sea fig, iceplant, Hottentot fig
Centranthus ruber	red valerian, Jupiter's beard
Cistus ladanifer (including hybrids/varieties)	resinous rockrose, gum rockrose
Cortaderia jubata [syn. *C. atacamensis*]	purple pampas grass, pampas grass
Cortaderia selloana	Uruguayan pampas grass
Cotoneaster spp. (all species)	cotoneaster
Cynodon dactylon (including hybrids/varieties)	Bermuda grass
Cyperus spp. (all species*)	nutsedge, flatsedge, umbrella plant
Cytisus spp. (all species)	broom, Portuguese broom, Scotch broom, Spanish broom
Delosperma littorale, *Delosperma* 'Alba'	ice plant, seaside delosperma, white trailing ice plant
Dimorphotheca spp. (all species)	African daisy, Cape marigold, trailing African daisy, blue and white daisybush
Drosanthemum floribundum	ice plant, rosy ice plant, showy dewflower
Drosanthemum hispidum	hairy dewflower
Eichhornia crassipes	common water hyacinth
Elaeagnus angustifolia	oleaster, Russian olive
Eucalyptus spp. (all species)	eucalyptus, gum tree, yate tree
Eupatorium coelestinum [syn. *Ageratina* sp.]	mist flower
Festuca arundinacea	alta fescue, reed fescue, tall fescue

Botanical Name	Common Name
Festuca perennis	Italian rye grass
Festuca rubra	red fescue
Foeniculum vulgare	biscuit root, sweet fennel
Fraxinus uhdei (and cultivars)	evergreen ash, shamel ash
Gazania spp. (all species and hybrids)	gazania, treasure flower
Genista spp. (all species)	broom, bridal broom, Canary island broom, French broom, Madera broom, Mediterranean broom
Glebionis coronaria	crown daisy
Hedera canariensis	canary ivy, Algerian ivy
Hedera helix	English ivy
Hypericum spp. (all species)	common, St. John's Wort, Klamath weed
Ipomoea acuminata	oceanblue morning glory
Lampranthus spp. (all species)	trailing ice plant, golden iceplant, redflush
Lantana camara	lantana
Lantana montevidensis [syn. *L. sellowiana*]	trailing lantana, trailing shrubverbena
Limonium perezii	Canarian sea lavender, Perez's sealavender
Linaria bipartita	toadflax, clovenlip toadflax, split lip toadflax
Lonicera japonica (including 'Halliana')	Japanese honeysuckle
Lotus corniculatus	birdsfoot trefoil, birdfoot deervetch, broadleaf birdsfoot trefoil
Lupinus arboreus	coastal bush lupine, yellow bush lupine
Lupinus texensis	Texas blue bonnets
Malephora crocea	coppery mesembryanthemum
Malephora luteola	Rocky Point ice plant
Mesembryanthemum nodiflorum	slender leaved ice plant, slenderleaf iceplant, small flowered ice plant
Myoporum laetum	lollypop tree, ngaio tree
Myoporum parvifolium (including '*prostratum'*)	slender myoporum
Oenothera spp.*	gauras, non-native evening primroses
Olea europea	olive, European olive tree
Opuntia ficus-indica	mission cactus, tuna cactus
Osteospermum calendulaceum	stinking Roger
Oxalis pes-caprae	Bermuda buttercup, sourgrass
Parkinsonia aculeata	Mexican palo verde, Jerusalem thorn
Pennisetum clandestinum	Kikuyu grass

Botanical Name	Common Name
Pennisetum setaceum	fountain grass, crimson fountaingrass
Phoenix canariensis	Canary Island date palm
Phoenix dactylifera	date palm
Plumbago auriculata	Cape leadwort
Polygonum spp. (all species)	knotweed
Populus nigra 'italica'	Lombardy poplar
Prosopis spp. (all species*)	mesquite
Ricinus communis	castorbean
Robinia pseudoacacia	black locust
Rubus procerus	Himalayan blackberry
Saponaria officinalis	bouncing bet, soapwart
Schinus molle	Peruvian pepper tree, California pepper
Schinus terebinthifolius	Brazilian pepper tree
Spartium junceum	gorse, Spanish broom
Tamarix spp. (all species)	tamarisk, salt cedar
Triadica sebifera	Chinese tallowtree
Trifolium fragiferum	strawberry clover
Tropaeolum majus	garden nasturtium, nasturtium
Ulex europaeus	common gorse
Vinca major	vinca, periwinkle, bigleaf periwinkle, greater periwinkle
Yucca gloriosa	moundlily yucca
An asterisk (*) indicates some native species of the genera exist that may be appropriate.	

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Appendix E:
South Environmental Jurisdictional Delineation Report

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2061 N Los Robles Ave., #205 Pasadena, California 91104 / www.southenvironmental.com

October 17, 2023

Martin Rasnick
Associate Director of Biological Services
FirstCarbon Solutions
Email: mrasnick@fcs-intl.com
Phone: 602-501-1471

RE: Jurisdictional Delineation for the Salt Creek Project in Menifee, California

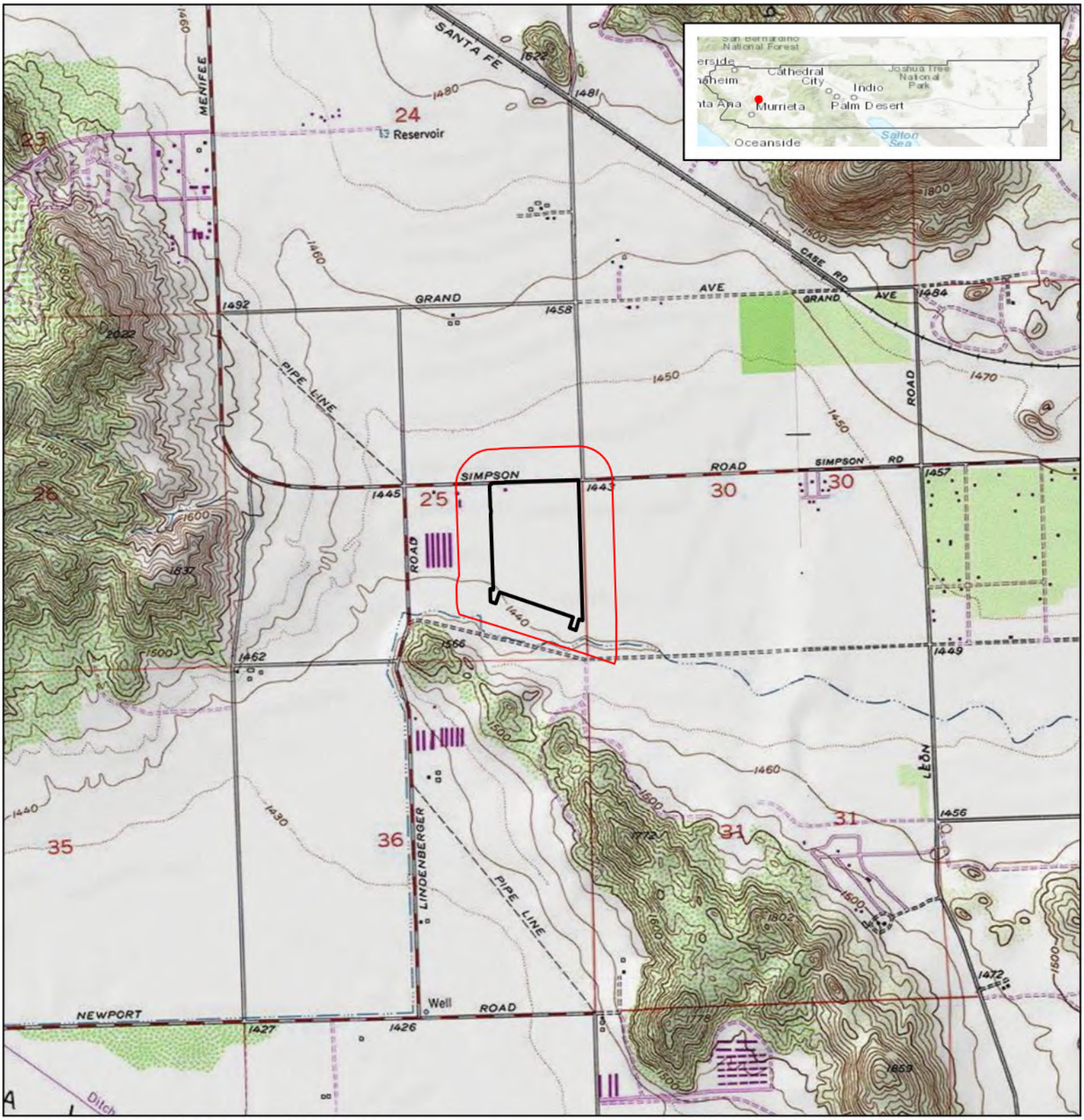
Dear Mr. Rasnick,

This letter includes results of a Jurisdictional Delineation and an assessment of impacts from the Salt Creek Project (project) in Menifee, California. The scope of this letter report includes a description of the project, methodology, results of the survey, a delineation of the jurisdictional resources on the project site and study area (500-foot buffer around the project site), an assessment of potential impacts to jurisdictional features, and recommendations for permitting and mitigation for the proposed impacts.

Project Description

Location

The project site includes 56.47-acres where a new residential community is proposed to be located north of Domenigoni Parkway, south of Simpson Road, east of Briggs Road, and west of La Ventana Road (attached Figure 1 and Figure 2). The project site will include a crossing of Briggs Road and concrete culvert connections in Salt Creek therefore is considered public-quasi public lands (PQP). It contains three parcels with the following Assessor's Parcel Numbers [APNs]: 333-200-062, 333-200-055, and 333-200-057. The project site is on the Romoland USGS 7.5-minute quad in Section 25 of Township 05 South and Range 03 West. The areas surrounding the project site to the northwest and west are residential communities with single-family homes whereas the areas surrounding the project to the north, south, and east are agricultural lands or disturbed native plant communities in flat or mountainous settings.



Source: ESRI USA Topo Maps and World Topo Map 2023

Salt Creek Project

Figure 1. Project Location

Project Site

Study Area

Project Site is within Menifee, California, in Riverside County on the USGS Romoland 7.5-minute quadrangle map in Section 25 of Township 05 South and Range 03 West

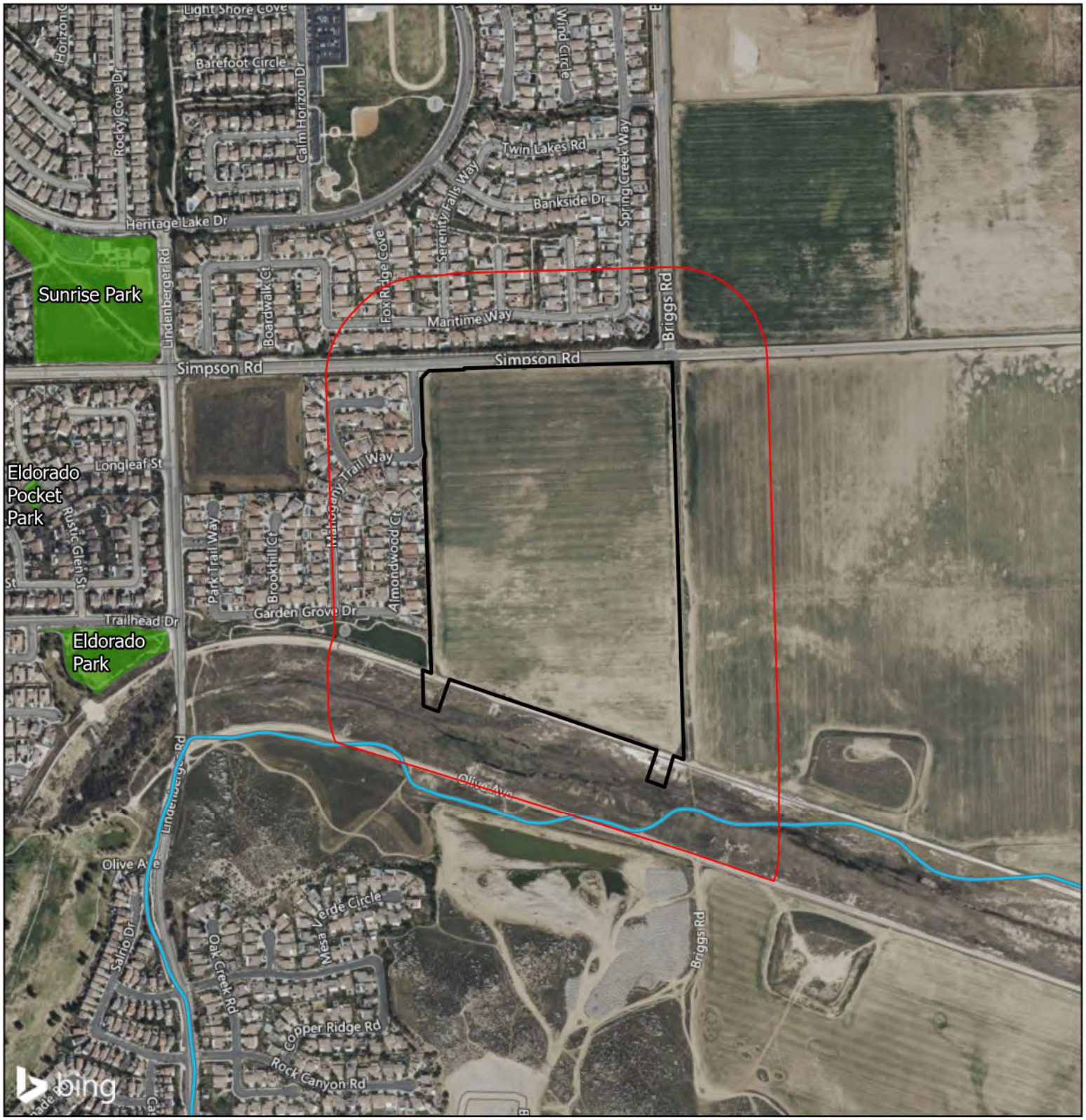
Center Coordinate (Decimal Degrees):
Latitude: 33.7035033N Longitude: -117.1386340W

0 1,000 2,000 Feet

Scale: 1:24,000

N

SOUTH ENVIRONMENTAL



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 2. Project Vicinity

0 425 850 Feet

N

Scale: 1:8,500

- Project Site
- Study Area
- USFWS - National Wetlands Inventory (NWI)
- California Protected Area Database (CPAD)

SOUTH ENVIRONMENTAL

Proposed Development

As shown in Figure 3 and in the attached Site Plan, the project includes the construction of a residential community with single-family homes, streets, sidewalks, landscaping, a neighborhood park, sewer and utility lines, water quality basin, and concrete culverts for channeling water from Salt Creek. Three hundred twenty-nine single-family houses are proposed which will be served by 13 newly constructed streets and Briggs Road would be constructed on the east side of the houses. Several traffic rotaries within the community would be built to facilitate the flow of traffic. Sewer and utility lines including telecommunications poles and cables and water and electricity lines will be developed throughout the community and a water quality basin will be built on its northeastern corner. A neighborhood park with adjacent parking will be developed on the southern edge of the development and drainage culverts will be added for appropriate stormwater conductance.

Regulatory Setting

Federal Regulations

Clean Water Act Sections 404 and 401

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged and fill material into waters of the United States (U.S.), including wetlands. Activities in waters of the U.S. or wetlands regulated under this program include fill as a result of projects such as development, water resource projects (such as dams and levees), infrastructure development and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U.S.

Section 401 of the CWA requires that any person applying for a federal permit or license which may result in a discharge of pollutants into waters of the United States (such as a Clean Water Act Permit under Section 404), must obtain a state water quality certification stating that the activity complies with all applicable water quality standards, limitations, and restrictions. No license or permit may be issued by a federal agency until certification required by section 401 has been granted or waived.

Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 3. Proposed Development

0 175 350 Feet

N

Scale: 1:3,500

Project Site

Proposed Development

Outlet Structure and Dispersion Area

Residential Development

SOUTH ENVIRONMENTAL

California Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act requires the adoption of water quality control plans (basin plans) that give direction to managing water pollution in California. The basin plans get adopted and administered by the Regional Water Quality Control Board (RWQCB). The plans incorporate the beneficial uses of the waters of the State and then provide objectives that should be met to maintain and protect these uses. Along with the Regional Water Boards, the State Water Resources Board can issue and enforce permits containing waste discharge requirements to maintain clean surface water and groundwater. Each basin plan identifies the specific beneficial uses of water in their region for the past, present, and future. These basin plans also all have objectives for which the plan clearly states steps that are being taken or will be taken to meet the objectives. These objectives are created for the purpose of keeping the water clean and safe to use beneficially. The Regional Board has the authority to give out permits for the purpose of waste disposal or waste assimilation.

Waters of the State (WSC) 401 Water Quality Certification

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit including a Section 404 permit. The RWQCB' s delegated authority over Section 401 requires a Water Quality Certification consistent with the USACE of Engineers definition of waters of the US.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board [SWRCB] 2020a). The Water Boards define wetlands as follows:

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

The Water Code defines Waters of the State of California (WSC) broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." In the 2020 state wetland definition, the State did not define non-wetland WSC, rather they are relying on regional characterizations of jurisdiction was delegated to the Regional Boards.

The following wetlands are WSC based on the 2020 Procedures:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state; and
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other WSC, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not WSC unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal;
        ii. Settling of sediment;
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters;
        v. Agricultural crop irrigation or stock watering;
        vi. Fire suppression;
        vii. Industrial processing or cooling;
        viii. Active surface mining – even if the site is managed for interim wetlands functions and values;
        ix. Log storage;
        x. Treatment, storage, or distribution of recycled water;
        xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
        xii. Fields flooded for rice growing.

All artificial wetlands that are less than 1 acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WSC.

State of California Fish and Game Code Section 1600

Fish and Game Code Section 1602 outlines the Lake and Streambed Alteration Agreement (LSAA) permitting process, and states:

- An entity shall 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

Fish and Game Code Section 1602 requires any entity (defined as any person, State or local governmental agency, or public utility) to notify the CDFW before beginning any activity that will do one or more of the following:

- substantially divert or obstruct the natural flow of and river, stream, or lake, 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.

A permit, known as a Lake or Streambed Alteration Agreement, from CDFW is required to conduct any of the activities described above.

Methodology

This jurisdictional delineation is based on information compiled through a field survey of the project site and study area and a review of appropriate reference materials and literature regarding the resources of the region. The sources and literature referenced in this assessment are provided in the Bibliography below.

Literature Review

The assessment of the jurisdictional features began with a review of literature relating to the topography, soils, and hydrology that are known to occur on and in the vicinity of the project site, and include the following sources:

- United States Geologic Service (USGS) Romoland 7.5”quad topographic map,

- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soils Database (USDA 2023)
- National Hydrography Dataset (USGS 2023a)
- National Wetlands Inventory (USFWS 2023)
- National Watershed Boundary Dataset (USGS 2023b)
- Historic aerial photographs (historicaerials.com),
- Federal Emergency Management Agency (FEMA) flood GIS database (FEMA 2023)

Jurisdictional Delineation

A delineation of waters of the U.S. and "waters of the state" was conducted on September 11 and 12, 2023, throughout the project site and study area and included the area within the bed and banks of any jurisdictional features and any possible associated riparian areas. The limits of jurisdictional features were recorded in the field using ArcGIS Field Maps mobile application. A Geode GPS Receiver was used to ensure that the accuracy of the measurements was less than 12-inches of error.

Waters of the U.S.

Guidance documents released by the U.S. Army Corps of Engineers (USACE) following the US Supreme Court's 2023 Sackett Decision define waters of the U.S. as any of the following:

- Traditional Navigable Waters (TNWs),
- wetlands adjacent to TNWs,
- tributaries of TNWs (relatively permanent, standing or continuously flowing bodies of water)
- wetlands directly adjacent to tributaries of TNWs and with a continuous surface connection to TNWs or tributaries to TNWs.

Wetlands

The delineators used methods described in the USACE 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0) (USACE 2008) to determine the presence or absence of wetlands. During the site survey the following three wetland indicators were evaluated:

1. Dominance of hydrophytic wetland vegetation,
2. Presence of hydric soils, and

3. Periods of surface flooding or ponding water (visible surface water or saturated soils).

The USACE Arid West 2016 *Regional Wetland Plant List* was used to determine the wetland indicator status of plants that were observed in the Review Area, and changes in vegetation, soils, or hydrologic features are used to identify boundaries of wetlands, when present. Completed *Wetland Determination Data Form – Arid West Region* worksheets were completed for the project and are included in Appendix B.

Non-Wetland Waters

Non-wetland waters of the US are waters that lack wetland vegetation or hydric soils and have a clearly defined Ordinary High-Water Mark (OHWM), which indicates periods of surface flow. The OHWM was delineated using the methods in two USACE guidance documents: *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008) and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). A completed Datasheet for Identification of the OHWM is found in Appendix B.

Waters of the State

Santa Ana Regional Water Quality Control Board

South Environmental assumes all waters of the US are also considered waters of the state and are under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). The limits of wetlands, or the OHWM for non-wetland waters delineated in the project site will also be considered the limits of waters of the state under the jurisdiction of the RWQCB.

California Department of Fish and Wildlife (CDFW)

Waters of the state that are under the jurisdiction of the California Department of Fish and Wildlife (CDFW) are delineated at the top of the bank of a stream and extend to riparian habitats or vegetation associated with watercourses. Riparian vegetation is that which depends on surface or groundwater associated with the stream to exist and other vegetation that is either more dense or vigorous than the surrounding communities will also be considered under the jurisdiction of the CDFW.

Results

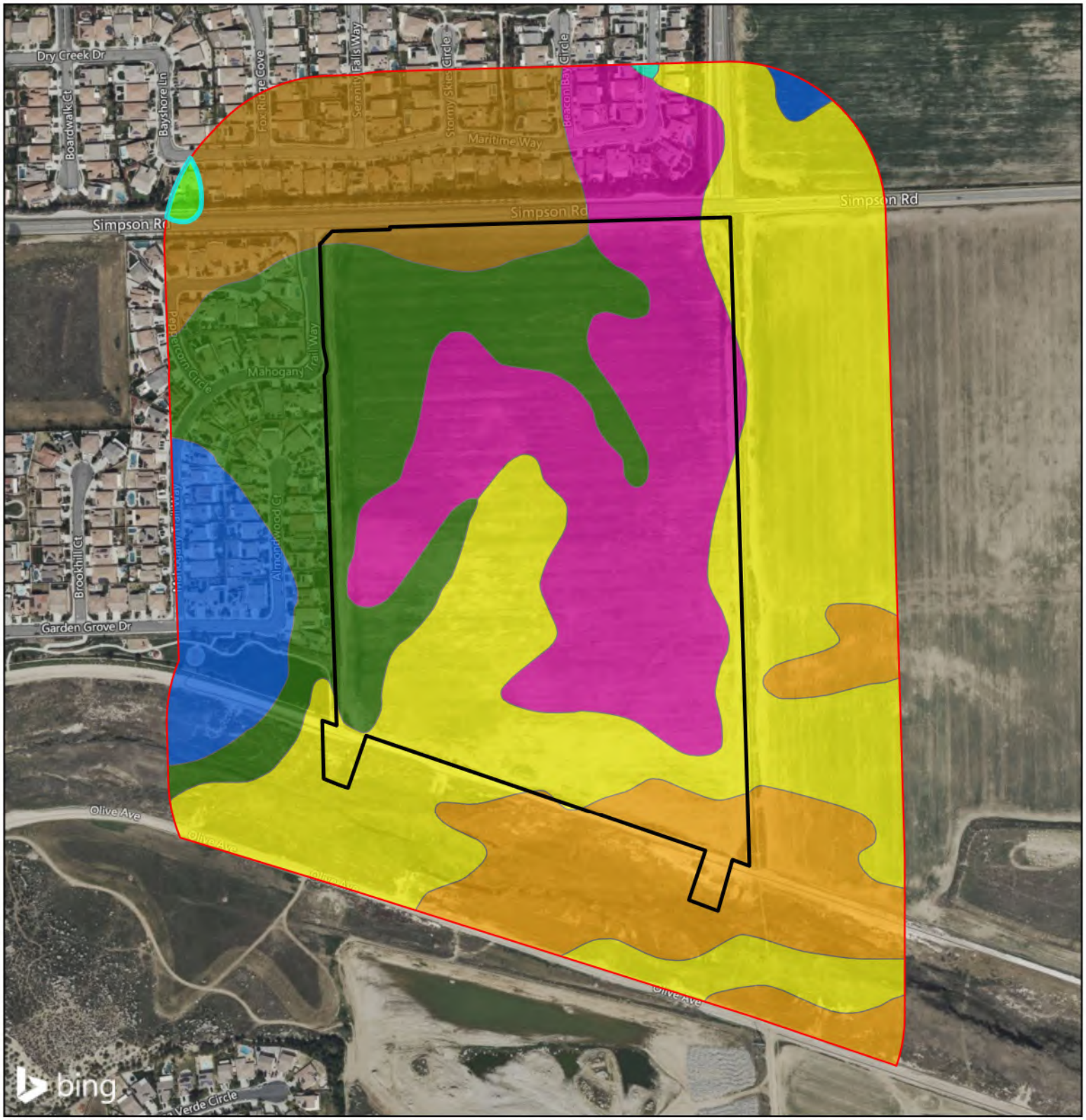
Topography and Climate

The project site is located east of the Santa Ana Mountains, east of Lake Elsinore, and northwest of Diamond Valley Lake. There is a riparian area to the south with a single-thread stream channel that winds from east to west and a low-lying wetland area adjacent to the channel. There are agricultural fields and a residential neighborhood to the north that are flat, although there is a small hill between Simpson Road and the residential community. A stream channel running adjacent to Briggs Road is north to the south and separates two large agricultural tracts. The topography within the study area increases gradually from south to north and from east to west. The agricultural areas to the north are between 1440 to 1445 ft above mean sea level (amsl) whereas the stream channel and wetland area to the south are between 1430 to 1435 ft asl. The highest elevation for the project site is approximately 1465 ft amsl in the residential neighborhood at the northern border. The lowest elevation for the project site is approximately 1430 ft amsl in the stream channel wetland area to the south. The climate in the region is hot and dry, with an average annual high temperature of 78.7° F and an average annual low temperature of 45.3° F. Average yearly rainfall is 10.4-inches, and the wettest months are November – April, and there is little precipitation between May-October.

Soils

Eight soils occur on the study area as shown in Figure 4:

- **Domino silt loam, saline-alkali** occurs on the eastern-central portions of the southern riparian area and north into agricultural land. This is an alluvial fan and depressions soil and is moderately well-drained.
- **Domino silt loam, strongly saline-alkali** occurs on the central and western portions of the southern riparian area and on portions of agricultural land to the north. This is an alluvial fan and depressions soil and is moderately well-drained.
- **Exeter sandy loam, 0 to 2 percent slopes** occurs on the residential and park area on the western edge of the study area. It is found on alluvial fans and is well drained.
- **Exeter sandy loam, deep, 0 to 2 percent slopes** occurs in the northern study area. It is found on alluvial fans and is well drained.
- **Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes** occurs on central areas of the western agricultural tract. It is found on alluvial fans and is well drained.



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 4. Soils

- Project Site
- Study Area

Soils

- Domino silt loam, saline-alkali
- Domino silt loam, strongly saline-alkali
- Exeter sandy loam, 0 to 2 percent slopes
- Exeter sandy loam, deep, 0 to 2 percent slopes
- Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes
- Greenfield sandy loam, 0 to 2 percent slopes
- Hanford coarse sandy loam, 0 to 2 percent slopes
- Ramona sandy loam, 0 to 5 percent slopes, severely eroded

0 260 520 Feet

Scale: 1:5,200

N

SOUTH ENVIRONMENTAL

- **Greenfield sandy loam, 0 to 2 percent slopes** occurs on the residential area on the northern extension of the site. It is found on alluvial fans and terraces and is well drained.
- **Hanford coarse sandy loam, 0 to 2 percent slopes** occurs in the western study area. It is found on alluvial fans and is well drained.
- **Ramona sandy loam, 0 to 5 percent slopes** occurs on the western edge of the southern riparian edge and on agricultural and residential areas to the north. This is severely eroded soil found on terraces and alluvial fans and is well drained.

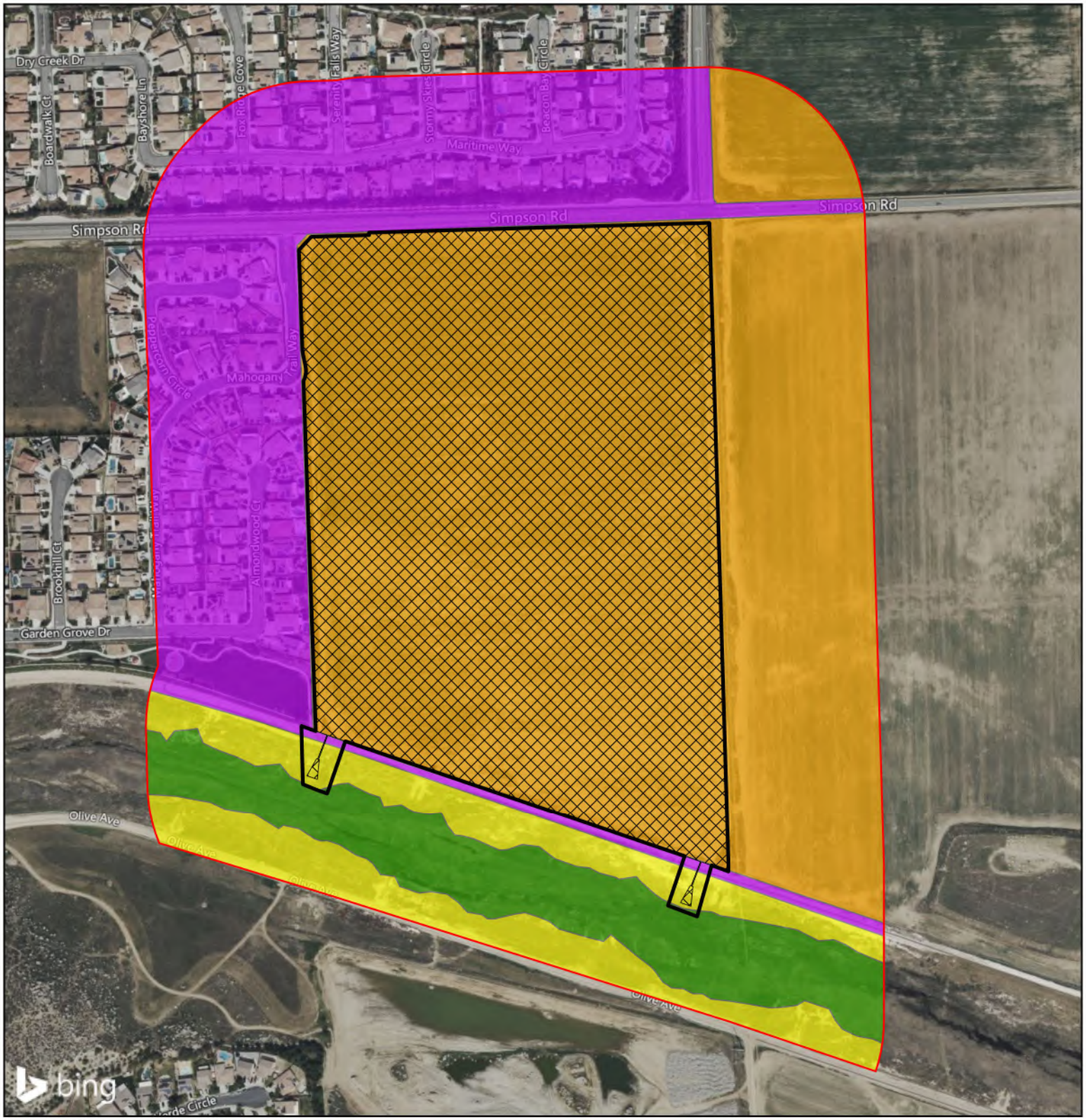
Plant Communities

There are two plant communities and two land cover types in the study area, and of those, four plant communities and two land cover types occur on the project site. Each is shown in Figure 5 below and acres of each is summarized in Table 1 below.

Table 1. Summary of Plant Communities on the Study Area and Project Site

Community or Cover Type	Acres on Study Area	Acres on Project Site	Acres Permanently Impacted by Project	Acres Temporarily Impacted by Project
Perennial Pepperweed – Salt Grass	12.28	0.00	0	0
Salt Grass - Wall Barley	13.07	0.78	0.07	0
Agricultural	84.95	55.67	55.62	0
Developed	38.62	0.02	0.02	0
Total	**148.92**	**56.47**	**55.71**	**0**

- **Perennial Pepper Weed – Salt Grass** is an association (*Lepidium latifolium – Distichlis spicata*) within the Perennial pepper weed – Prickly Lettuce Patch (*Lepidium latifolium - Lactuca serriola*) *Herbaceous Semi-Natural Alliance*, CDFW 2022) that occurs on 12.28-acres of the study area within Salt Creek, and is outside of the project site. At the canopy level one species was observed, tamarisk (*Tamarix ramosissima*). The community was mostly dominated by dense cover of pepper weed and salt grass with some patches of narrow-leaved cattail (*Typha angustifolia*). At the ground level were several non-native grasses (*Bromus* spp.) and an occasional native species, for example, flatspine bursage (*Ambrosia acanthicarpa*).



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 5. Plant Communities and Land Cover

0 260 520 Feet

Scale: 1:5,200

N

- Study Area
- Project Site
- Proposed Development Footprint

Plant Communities and Land Cover

- Agricultural
- Developed
- Perennial Pepperweed - Saltgrass
- Salt Grass - Wall Barley

SOUTH ENVIRONMENTAL

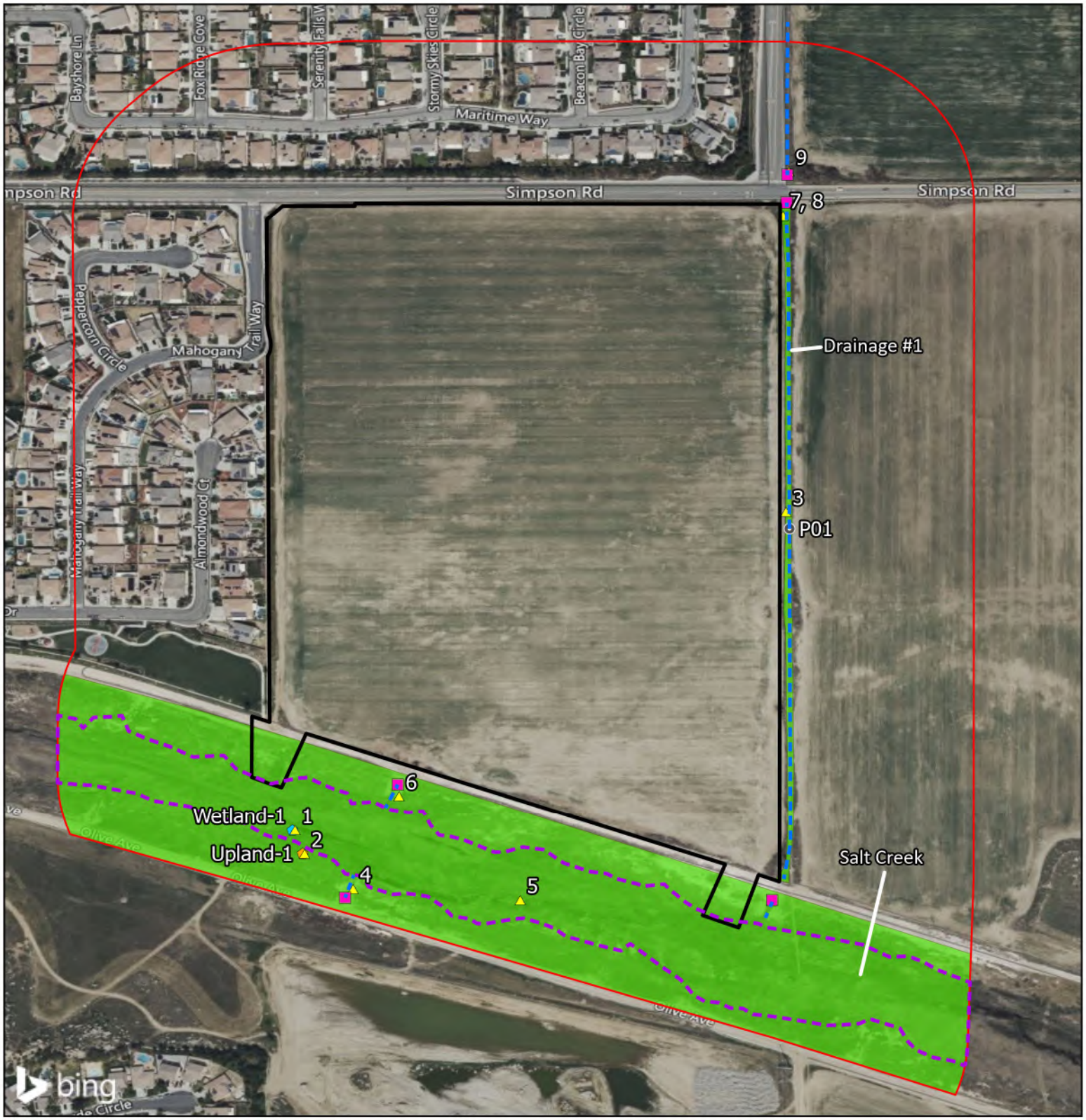
- **Salt Grass – Wall Barley** is an association (*Distichlis spicata – Hordeum murinum*) within the Salt Grass Herbaceous Alliance; CDFW 2022) that occurs on 13.07-acres of the study area and 0.78-acre of the project site on the upland areas immediately adjacent to the wetland. In association with salt grass and wall barley are several native and non-native species. Native species include alkali heliotrope (*Heliotropium curassavicum*) and western ragweed (*Ambrosia psilostachya*). Non-native species observed included Maltese star-thistle (*Centaurea melitensis*), compact brome (*Bromus madritensis*), sprawling saltbush (*Atriplex suberecta*), fivehorn smootherweed *(Bassia hyssopifolia*) stinknet (*Oncosiphon piluliferum*), and pitgland tarweed (*Holocarpha virgata*).

- **Agricultural** areas are found on 84.95-acres acres of the study area and on 55.67-acres of the project site. These areas are currently fallow and in the recent past had a dense carpet of non-native grasses including wall barley, red brome (*Bromus rubens*) and compact brome and an occasional forb (e.g., bur clover, *Medicago polymorpha*). During the site visit in 2023 the area had been tilled and there was a sparse presence of forbs and grasses including wall barley, southern Russian thistle (*Salsola australis*), pigweed (*Amaranthus albus*), common sunflower (*Helianthus annuus*), cheeseweed mallow (*Malva parviflora*), and alkali heliotrope

- **Developed / Ornamental Landscape** areas are found on 38.62-acres of the study area and 0.02-acre of the project site. The developed areas consist of residential areas with single-family house complexes on the northwestern and northern portions of the study area. There are several streets in these areas including Mahogany Trail Way, Garden Grove Drive, and Almondwood Court to the northeast and Simpson Road and Maritime Road to the north. Adjacent to the south of Garden Grove Drive is the Mahogany Creek Park and its eastern portion is within the study area. The developed area on the project site consists of two unpaved road, one to the north and one to the south of the wetland area. Ornamental species in these area include non-native palms and pines; a variety of sub-canopy species including firestick plant, American agave, bougainvillea, and rosemary, among others.

Jurisdictional Features

The project site is located within the San Jacinto Valley watershed (18070202). As shown in Figure 6, there is drainage #1 just east of and off of the project site and Salt Creek, a wetland and streambed, in the southern portion of the project site. Table 2 below summarizes the acres of estimated jurisdictional features within the study area.



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 6. Jurisdictional Delineation

0 250 500 Feet

N

Scale: 1:5,000

- Project Site
- Study Area
- Culvert
- Photo Point
- OHWM Form
- Wetland Dataform
- Upland Dataform
- Non-Wetland Waters of the US and State
- Wetland Waters of the US and State (USACE and RWQCB)
- CDFW Streambed

SOUTH ENVIRONMENTAL

Table 2. Summary of Jurisdictional Features on the Study Area

Feature	Linear Feet	Non-Wetland Waters of the US/State (USACE/RWQCB) - acres	Wetland Waters of the US/State (USACE/RWQCB) - acres	CDFW Streambed - acres	CDFW Riparian - acres
Drainage #1	2,580	0.19	0	0.80	0
Salt Creek	2,525	0	12.28	25.35	0
Total	5,105	0.19	12.28	26.15	0

The results of this jurisdictional delineation are based on the best professional judgement of the qualified delineator, using the most up-to-date regulations, written policy, and guidance from regulatory agencies. However, all conclusions regarding potential jurisdiction in this report should be considered preliminary and at the final discretion of the regulatory agencies.

Drainage #1

Drainage #1 enters the study area with natural boundaries from the south and flows to the north. As it approaches the northern survey area, it enters a culvert under Simpson Road and continues to the north. Drainage #1 continues past the study area boundary.

An OHWM Datasheet P01 was completed within the natural boundaries OHWM area for Drainage #1. The width of the OHWM near P01 is approximately 14feet. Drainage #1 has a top-of-bank (TOB) that was equivalent to the the OHWM bounds to both its west and east. Near P01, the OHWM is evident due to a change in vegetation cover, a break in bank slope, and the presence of water. During the survey, the OHWM/TOB was filled with water. This water was determined to be perennial; therefore drainage #1 was determined to be an intermittent stream. The active floodplain was indicated by the presence of bed and bank and surface relief. The active floodplain is limited to the TOB and is controlled by surface relief.

A Wetland Determination Form was not taken for drainage #1 due to a lack of hydrophytic plants; therefore, drainage #1 was determined to be a non-wetland.

A total of 2,580-linear feet (0.19-acres) of drainage #1 is in the study area. Drainage #1 does not have riparian cover. None of drainage #1 is on the project site.

Drainage #1 has an upstream connection to several water bodies. It first connects upstream to Salt Creek. Salt Creek connects upstream to Canyon Lake. Canyon Lake connects upstream to San Jacinto River. San Jacinto River connects upstream to Lake Elsinore. Lake Elsinore is considered a

traditional navigable water (TNW) by the USACE. Due to its connection to a TNW and being an intermittent stream, drainage #1 in the study area is likely considered a non-wetland water of the U.S./State under the jurisdiction of USACE, RWQCB, and CDFW. USACE, RWQCB, and CDFW jurisdictions are within the OHWM/TOB boundaries.

Salt Creek

Salt Creek is a relatively large water system with a stream channel and wetland. The stream channel is single-thread and meanders moderately as it flows east to west. The channel is shallow (1-4 ft) and varies in width between 6 to 15-ft. During the site visit in September 2023, water was present along the entire channel. Signs of recent water flow were evident in a wide swath (0 to 80-ft) from the channel which was probably a wider flow range than normal given the wet spring in the area.

Wetland Determination Form (Wetland-1) was completed at a point within 20-ft of the stream channel where three primary hydrology indicators were present: drift deposits, surface soil cracks, and salt crust. Wetland hydrology was present. The soil pit for Wetland-1 had a color of 10 YR 4/4 from 0-6 inches below ground surface (bgs) and a color of 10 GY 8/1 from 6-20 inches bgs. The gleyed soil was classified as a Loamy Gleyed Matrix. Hydric soil was present for Wetland-1. Three species were observed at the herb stratum for the Wetland-1 point: salt grass (*Distichlis spicata*; FAC), broadleaved pepperweed (*Lepidium latifolium*, FAC), and flatspine bursage (*Ambrosia acanthicarpa*, UPL). The vegetation dominance test passed at 100%, but the prevalence index failed at 3.24. Because the dominance test passed, hydrophytic vegetation was present. The site met the three requirements for wetland status of wetland hydrology, soil, and vegetation and was determined to be wetland.

Upland Determination Form (Upland-1) was completed in an area to the southeast of the area for Wetland-1. The area was approximately 100-ft from the stream channel and upland and there were no primary or secondary indicators of hydrology. Wetland hydrology was not present. The soil pit for Upland-1 had a color of 10 YR 4/4 from 0 – 6 inches bgs and a color of 10 YR 6/3 from 6-20 inches bgs. Hydric soils was not present. Three species were observed at the herb stratum for the Upland-1 point: pit-gland tarweed (*Holocarpha virgata*, UPL), fivehorn smootherweed (*Bassia hyssopifolia*), FACU), and stinknet (*Oncosiphon piluliferum*, FACU). The vegetation dominance test failed at 0% and the prevalence index failed at 4.2 and therefore no hydrophytic vegetation was present. Upland-1 was determined to be non-wetland.

A total of 2,525-linear feet (25.35-acres) of Salt Creek is in the study area, including 12.28-acres with wetland jurisdiction and 25.35-acres of total CDFW jurisdiction. Salt Creek has an upstream connection to several water bodies. Drainage #1 has an upstream connection to several water

bodies. Salt Creek connects upstream to Canyon Lake. Canyon Lake connects upstream to San Jacinto River. San Jacinto River connects upstream to Lake Elsinore. Lake Elsinore is considered a traditional navigable water (TNW) by the USACE. Due to its connection to a TNW, Salt Creek in the study area is likely considered a non-wetland water of the U.S./State under the jurisdiction of USACE, RWQCB, and CDFW. USACE, RWQCB are within the wetland boundaries, and CDFW jurisdictions are within the streambed and vegetated streambed boundaries.

Impacts Analysis

Permanent Impacts: As shown in Figure 7 and summarized in Table 4, the total permanent impacts from proposed developments anticipated from the project include 0.07-acres (70 linear feet) of CDFW jurisdiction within vegetated streambed areas of Salt Creek.

Temporary Impacts: There are no temporary impacts to jurisdictional features expected from the project.

Table 4. Summary of Permanent Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	CDFW Streambed (acres/linear feet of permanent impacts)
Drainage #1	0/0	0/0	0/0
Salt Creek	0/0	0/0	0.07/70
Total	0/0	0/0	0.07/70

Wetland Waters of the United States (USACE)

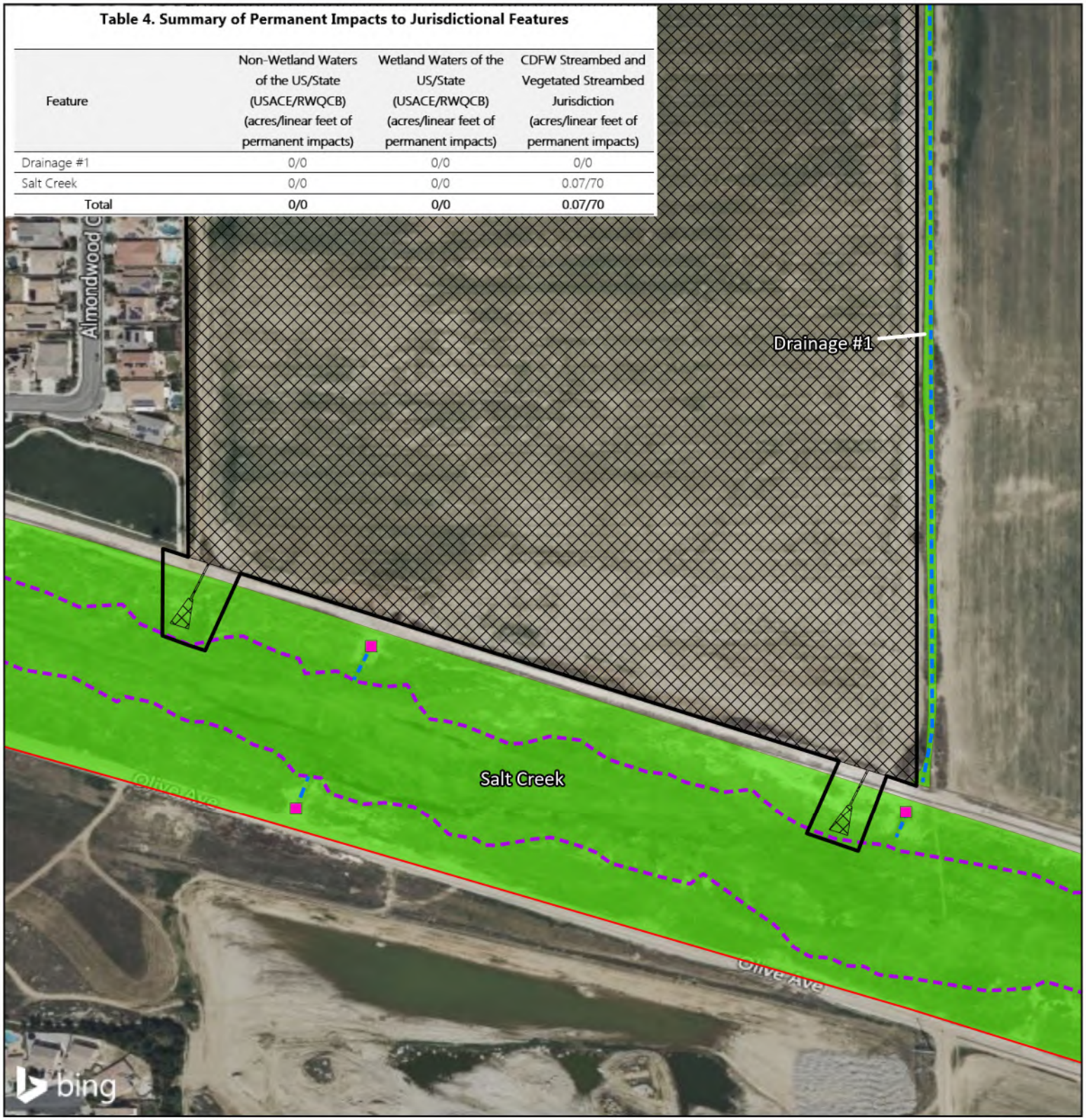
There are no wetlands within the proposed development on the project site and no impacts would occur to wetland waters of the U.S. The wetlands within Salt Creek are outside of the proposed development area. However, it is possible that the outfall structures will result in discharge of treated water into the wetlands.

Wetland Waters of the State (RWQCB)

There are no wetlands within the proposed development on the project site and no impacts would occur to wetland waters of the State. The wetlands within Salt Creek are outside of the proposed development area. However, it is possible that the outfall structures will result in discharge of treated water into the wetlands.

Table 4. Summary of Permanent Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet of permanent impacts)	Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet of permanent impacts)	CDFW Streambed and Vegetated Streambed Jurisdiction (acres/linear feet of permanent impacts)
Drainage #1	0/0	0/0	0/0
Salt Creek	0/0	0/0	0.07/70
Total	**0/0**	**0/0**	**0.07/70**



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 7. Jurisdictional Impacts

0 175 350 Feet

N

Scale: 1:3,500

- Culvert
- Proposed Development Footprint
- Non-Wetland Waters of the US and State
- Wetland Waters of the US and State (USACE and RWQCB)
- CDFW Streambed
- Project Site
- Study Area

SOUTH ENVIRONMENTAL

Non-Wetland Waters of the Unites States (USACE)

There are no non-wetlands within the proposed development on the project site and no impacts would occur to non-wetland waters of the US. The non-wetlands waters of the US within Drainage #1 are outside the project impact areas.

Non-Wetland Waters of the State (RWQCB)

There are no non-wetlands within the proposed development on the project site and no impacts would occur to non-wetland waters of the State. The non-wetlands waters of the state within Drainage #1 are outside the project impact areas.

CDFW Jurisdiction Streambed and Riparian

The total permanent impacts to CDFW streambed anticipated from the project include 0.07-acres (70 linear feet) due to the permanent development of two outfall structures that would fill these areas.

Recommendations and Conclusion

Salt Creek occurs on the project site and is considered wetland waters of the US and state under the jurisdiction of the USACE/RWQCB and protected streambed and vegetated streambed areas are under the jurisdiction of the CDFW. The proposed project will include permanent impacts to CDFW streambed within Salt Creek from the construction of two outlet structures and water dispersion areas. The total permanent impacts from proposed developments anticipated from the project include 0.07-acres (70 linear feet) of CDFW jurisdiction within vegetated streambed areas of Salt Creek.

- A CDFW Notification of Lake or Streambed Alteration will be required for these impacts and an application should be submitted via the online portal.

The two outfall structures will also result in the release of treated water into CDFW streambed and also likely into the wetlands (USACE and RWQCB).

- A National Pollutant Discharge Elimination System (NPDES) permit is likely required to discharge into Salt Creek and should be obtained from the RWQCB prior to construction of the project.

Recommended project design features and avoidance/minimization measures to be included in the permits should include best management practices to avoid additional impacts to the streambed or water quality. These recommended measures should include at a minimum:

- Project activities within 50-ft of unaffected drainage features shall be planned when no surface water is present. No work should occur after rain events or when there is forecast of 50% chance of rain.
- The contractor shall clearly delineate the project limits and prohibit any disturbance outside these boundaries.
- Project-related vehicles and equipment shall not enter the unaffected streambed and shall be staged at least 50-feet outside of jurisdictional areas.
- During construction, heavy equipment and vehicles shall be operated in accordance with standard Best Management Practices (BMPs). All equipment used in the workspace shall be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored at least 50-ft from drainage features, as feasible, or equipment will utilize secondary containment.
- Construction parking and staging will occur in previously disturbed and developed areas that are greater than 50-feet from unaffected jurisdictional areas.

If you have any questions regarding the information in this report, please contact Matthew South by mobile phone: 303.818-3632 or by email: msouth@southenvironmental.com.

Sincerely,

Matthew R. South
Principal Biologist

List of Attachments

1. **Attachment A**. Photograph Exhibit
2. **Attachment B**. Arid West Ephemeral and Intermittent Streams OHWM Datasheets

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Attachment A

Photograph Exhibit

Photo 1. View of Wetland-1 soil pit, facing west.

Photo 2. View of Upland-1 soil pit, facing west.

Photo 3. View of Drainage #1, facing south.

Photo 4. View of culvert south of Salt Creek, facing southwest.

Photo 5. View of wetland area for Salt Creek, facing east.

Photo 6. View of culvert north of Salt Creek, facing northwest.

Photo 7. View of culvert for drainage #1, facing north.

Photo 8. View of drainage #1, facing south.

Photo 9. View of culvert under Simpson Road for Drainage #1, facing south.

Attachment B

Arid West Ephemeral and Intermittent Streams

OHWM Datasheets

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Salt Creek Project
Project Number:
Stream: Drainage #1
Investigator(s): Scott Altmann

Date: 9/12/23 **Time:** 12:00
Town: Menifee **State:** CA
Photo begin file#: P01 **Photo end file#:**

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: OHWM of Drainage #1

Projection: NAD 83 **Datum:** NAD

Coordinates: 33.7039700, -117.1364800

Potential anthropogenic influences on the channel system:

Trash / Debris from human activity.

Brief site description:

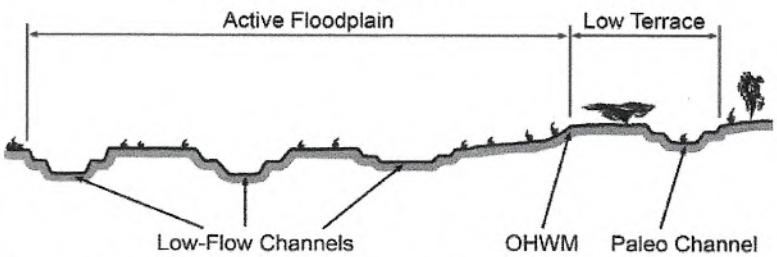
Agricultural land / OHWM bank of intermittent stream

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 9/23
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

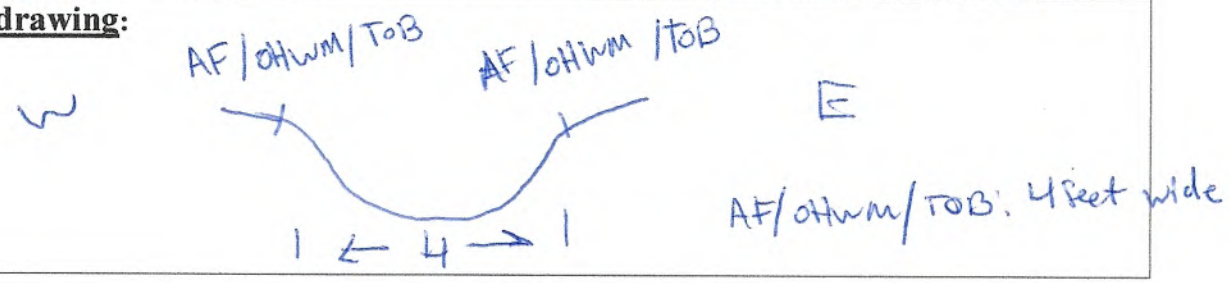


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☒ Mapping on aerial photograph
   - ☒ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: Salt Creek Project **Cross section ID:** P01 **Date:** 9/12/23 **Time:** 12:00

Cross section drawing:



OHWM

GPS point: 33.70397 00, -117.1364800

Indicators:

- [ ] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [x] Other: flowing water
- [ ] Other: _____

Comments:

Floodplain unit:

- [x] Low-Flow Channel
- [x] Active Floodplain
- [ ] Low Terrace

GPS point: Same

Characteristics of the floodplain unit:

Average sediment texture: fg-mg

Total veg cover: 95 % Tree: 0 % Shrub: 0 % Herb: 95 %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [x] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

The active floodplain was controlled by surface relief and was equal to the TOB.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Salt Creek City/County: Menifee, Riverside Sampling Date: 9.11.2023
Applicant/Owner: State: CA Sampling Point: UPLAND - 1
Investigator(s): Scott Altmann Section, Township, Range: S25, T5S, R3W
Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): flat Slope (%): 0-5%
Subregion (LRR): LRR D Lat: 33.7012175 N Long: 117.1406033 W Datum: 2156
Soil Map Unit Name: Domino silt loam, saline alkali NWI classification: R4SBA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation X , Soil X , or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation X , Soil X , or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Presence of non-native species including invasivies. Lepidium latifolium is known for invading wetlands and can have a severe impact on plants, soils, and hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Holocarpha virgata*	15	Yes	UPL
2. *Bassia hyssopifolia*	30	Yes	FACU
3. *Oncosiphon piluliferum*	15	Yes	FACU
4.			
5.			
6.			
7.			
8.			
	60 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	15	x 5 =	75
Column Totals:	60 (A)		255 (B)

Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ____

Remarks:

SOIL

Sampling Point: UPLAND - 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1 - 6	10YR 4/4	100					Loamy/Clayey	
6 - 20	10YR 6/3	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? Yes ___ No X Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Salt Creek | City/County: Menifee, Riverside | Sampling Date: 9.11.2023
Applicant/Owner: | State: CA | Sampling Point: Wetland - 1
Investigator(s): Scott Altmann | Section, Township, Range: S25, T5S, R3W
Landform (hillside, terrace, etc.): floodplain | Local relief (concave, convex, none): flat to concave | Slope (%):
Subregion (LRR): LRR D | Lat: 33.7014183 N | Long: 117.1406897W | Datum: 2156
Soil Map Unit Name: Ramona sandy loam, 0-5% slope | NWI classification: R4SBA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
Are Vegetation X, Soil X, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No
Hydric Soil Present? Yes X No
Wetland Hydrology Present? Yes X No

Is the Sampled Area within a Wetland? **Yes** X **No**

Remarks:
Presence of non-native species including invasivies. Lepidium latifolium is known for invading wetlands and can have a severe impact on plants, soils, and hydrology.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Distichlis spicata*	50	Yes	FAC
2. *Lepidium latifolium*	8	No	FAC
3. *Ambrosia acanthicarpa*	8	No	UPL
4.			
5.			
6.			
7.			
8.			
	66 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum | % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	58	x 3 =	174
FACU species	0	x 4 =	0
UPL species	8	x 5 =	40
Column Totals:	66 (A)		214 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
Prevalence Index is ≤3.0[1]
Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No**

Remarks:

SOIL

Sampling Point: Wetland - 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1 - 6	10YR 4/4	100					Sandy	Coarse to very fine sand
6 - 20	10GY 8/1	100					Loamy/Clayey	12% identifiable organic roots

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Water started to fill the pit at a depth of 20-in.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- X Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- X Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Suface water present 20-ft from sampling point. Water table present at depth of 20-in.

C.2 - Determination of Biologically Equivalent or Superior Preservation

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Determination of Biologically Equivalent or Superior Preservation
Tract 38625 Salt Creek Project
City of Menifee, California

Assessor's Parcel Numbers (APNs) 333-200-062, 333-200-055, and 333-200-057

Project Applicant:
MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, CA 92606

Contact: Louisa Feletto, Forward Planning Manager

Lead Agency:
City of Menifee
29844 Haun Road
Menifee, California 92586
951.672.6777
Contact: Brandon Cleary, Associate Planner

Prepared by:
FirstCarbon Solutions
967 Kendall Drive, #A-537
San Bernardino, CA 92407
714.508.4100

Contact: Cecilia So, Senior Project Manager
Martin Rasnick, Associate Director, Biological Services

Date: July 22, 2024

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SECTION 1: EXECUTIVE SUMMARY

The proposed Salt Creek Residential Project (proposed project) would require the construction of two outfall structures within the Salt Creek flood prone area. The reach of Salt Creek within and adjacent to the action area possesses Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Section 6.1.2 Riverine resources and Public/Quasi-Public (PQP) conserved land.

Permanent impacts to 0.07 acre of PQP Conserved Land and 0.09 acre of MSHCP Section 6.1.2 Riverine resources would occur as a result of project implementation. The 0.07 acre of PQP conserved lands are a component of the 0.09 acre of MSHCP Riverine/Riparian resources evaluated in this Determination of Biologically Equivalent or Superior Preservation (DBESP). The proposed project also has the potential to impact Drainage No. 1, located off-site along the eastern boundary of the project site. The proposed project has the potential to impact downstream wetland through the introduction of invasive species and potential impacts to burrowing owl (*Athene cunicularia*), and graceful tarplant (*Holocarpha virgata ssp. Elongat*a).

The following mitigation strategy is proposed to meet the criteria of a biologically equivalent or superior alternative. The applicant will offset permanent impacts to MSHCP Section 6.1.2 Riverine, PQP Conserved Land, downstream wetlands, and graceful tarplant resources as follows:

- Permanent impacts to 0.09 acre of MSHCP Section 6.1.2 Riverine resources would be mitigated at a ratio of 4:1 through purchase of 0.36 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank.
- Permanent impacts to 0.07 acre of PQP land and graceful tarplant would be mitigated through the purchase of six pounds of graceful tarplant seeds that will be provided to the Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.
- Prior to construction, the limit of Drainage No. 1 shall be delineated with fencing or flagging (orange plastic snow fence, orange silt fencing, or stakes and flagging) and designated as an Environmentally Sensitive Area (ESA). No construction activities and/or access would be permitted within the ESA designated areas. If work occurs within the ESA areas, all work shall cease until the issue has been remedied to the satisfaction of the City and the appropriate regulatory agencies. ESA fencing and/or flagging shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction.
- The proposed project would comply with all applicable water quality regulations, including obtaining and complying with those conditions established in Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit. Standard Best Management Practices (BMPs), which may include but are not limited to the installation of silt fencing, gravel berm, and fiber rolls to prevent any sediment and stormwater flows from entering Drainage No. 1. A project-specific Water Quality Management Plan and/or a

Stormwater Pollution Prevention Plan (SWPPP) shall be implemented, detailing project-specific BMPs.

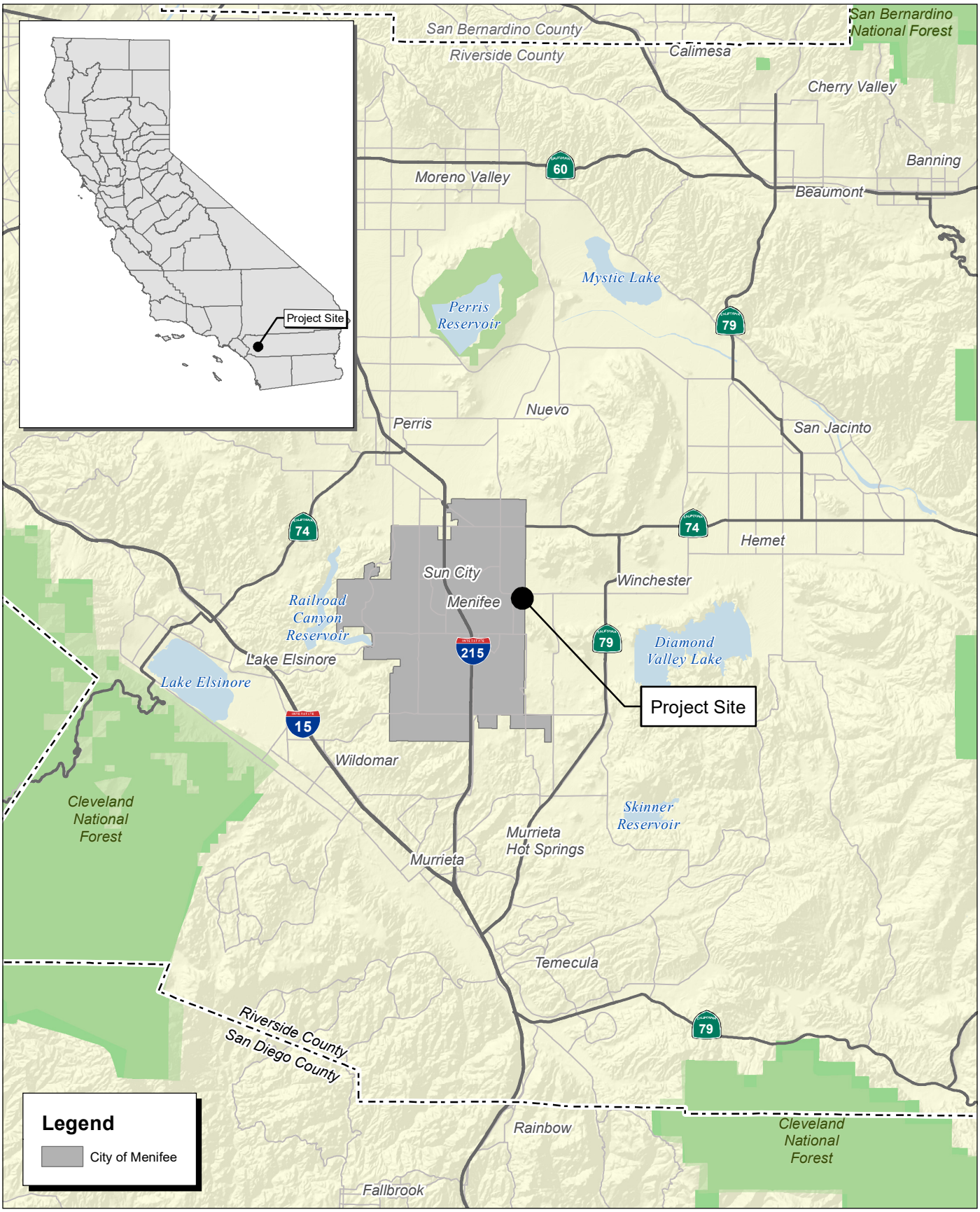
- The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owls are present on-site within 30 days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) guidelines and MSHCP protocol. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. The applicant shall provide a burrowing owl survey report and mapping to the City prior to the expected start of any project-related ground disturbance activities or restart of activities. If the survey is positive for burrowing owls, the project applicant shall implement a Burrowing Owl Mitigation Plan in coordination with the City of Menifee, the CDFW, the United States Fish and Wildlife Service (USFWS), and the Western Riverside County Regional Conservation Authority (RCA) (if coordination with the RCA is necessary). If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

If the pre-construction survey is positive for burrowing owls, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the CDFW 2012 Guidelines) at a minimum:

- Avoidance of burrowing owls during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through January 31) or a 200- to 500-meter radius around occupied burrows during the breeding season (February 1 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owls have dispersed from the area; or (2) breeding season owls have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

1.1 - Project Location and Setting

The approximately 55.61-acre project site is located in the City of Menifee (City), in Riverside County (County), California (Exhibit 1). Menifee is surrounded by the City of Perris to the north, the community of Winchester to the east, the cities of Murrieta and Wildomar to the south, and the cities of Lake Elsinore and Canyon Lake to the west. Regional access to the site is provided via Interstate 215 (I-215), which bisects the City north to south. Local access to the site is provided via Simpson Road.



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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The site is located at the southwest corner of Briggs Road and Simpson Road on one parcel which includes Assessor's Parcel Number (APN) 333-200-062. The off-site outfall locations are located on two parcels which include APNs 333-200-055 and 333-200-057. The site is located within the *Romoland, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

1.1.1 - Environmental Setting

The project site is surrounded by Simpson Road and residential development to the north; undeveloped lands to the east; Salt Creek to the south; and residential development to the west (Exhibit 2). The project site is vacant and undeveloped and has been used for wheat production. Undeveloped lands directly east of and adjacent to the project site have also been used for wheat production, and this area and the project site have had wheat continue to grow with recent rainfall. There is a drainage feature outside of and along the eastern boundary of the project site between the wheat fields. This feature was evaluated through the use of binoculars and existing dirt roads as the team did not have formal permission to access off-site areas. This drainage feature would not be disturbed as part of the proposed project. Vegetation immediately surrounding the wheat field on the project site contains ruderal, weedy species.

1.2 - Project Description

MLC Holdings, Inc. (project applicant) proposes a residential subdivision on the 55.61-acre project site, located at the southwest corner of Briggs Road and Simpson Road in the City of Menifee. The proposed project would consist of up to 329 detached condo units. The total residential square footage including garages and porches would be 839,300 square feet.

1.2.1 - Off-site Improvements

The proposed project would also include improvements on Briggs Road south of Simpson Road, along the eastern property line, with the applicant constructing Briggs Road to its ultimate half-width section. The proposed extension would also include frontage improvements along the western edge of Briggs Road, including curb, gutter, sidewalk, and landscaping.

The proposed project would also include the construction of two 48-inch storm drain outfalls along the northern bank of Salt Creek Channel, which would discharge cleansed flows from the development water quality basins into Salt Creek.

1.2.2 - Other Site Improvements and Amenities

The proposed project would include two water quality basins, one along Briggs Road on the eastern portion of the site, and one along the western portion of the project site.

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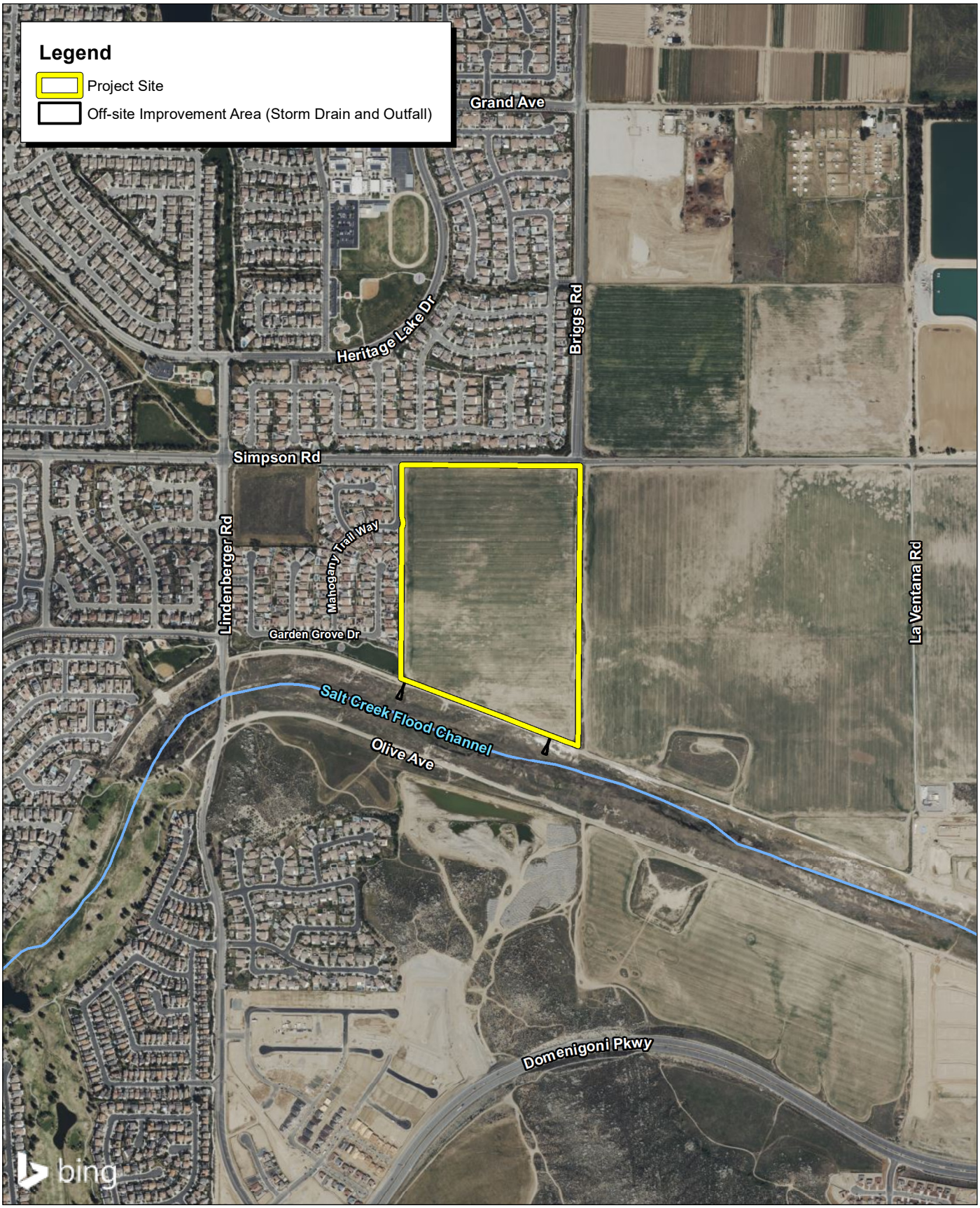

Source: Bing Aerial Imagery. County of Riverside.

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1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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1.2.3 - Site Access and Circulation

Vehicular Access and Circulation

Vehicular access to the project site would be provided via three access points connecting to the internal circulation system. Vehicular access would include one access point on Simpson Road and two access points on Briggs Road. On-site circulation would consist of several new two-lane, two-way roadways throughout the project site, sidewalks, and trails. The proposed project would include on-street parking available on all public streets in the tract, in addition to private residential parking within garages.

1.2.4 - Parks and Open Space

There would be a total of 9.27 acres of open space provided on the project site, including a 4.91-acre recreational park along the southern boundary of the project site adjacent to the Salt Creek Channel. The proposed park would provide future residents with walking trails. The park trails would be dispersed throughout the park and would connect to the existing Olive Avenue trail network, which would provide access to the Mahogany Creek Park and Trailway west of the project site.

1.2.5 - Landscaping

The project site would have a total of 11.57 acres of landscaping and 15.07 acres of paved surfaces, not including sidewalks or paving within the paseo/parks or driveways. The 30 percent open space requirement would be met through the paseos/parks, yards, and the public park. The proposed project would be landscaped with drought-tolerant plants and shade trees.

1.2.6 - Lighting

Existing outdoor lighting at and near the project site is associated with commercial/retail, public/institutional, and street lighting typical of suburban areas. The proposed project would generate lighting from two primary sources: lighting from building interiors that would pass through windows, and lighting from exterior sources (e.g., street lighting, vehicles, security lighting, and landscape lighting). Lighting associated with the proposed project would not be directed toward adjacent properties across Simpson Road or toward the residential homes adjacent to the west. Lighting is also being minimized in the vicinity of Salt Creek Channel to limit its effect on wildlife species.

1.2.7 - Storm Drainage

The project proposes to construct a storm drain system with catch basins for runoff collection. Discharge from the project site would collect and detain runoff from the northern boundary of the site, through the center of the site and would flow to two bioretention basins with a modular wetland system (MWS) for water quality treatment. The bioretention basins contain an overflow inlet to discharge excess flows from the site into the Salt Creek Channel. Additionally, a total of 1.47-acre vegetated open space area on the eastern and western portion of the site would serve as a bioretention area for runoff.

The proposed project would also include the construction of two 48-inch storm drain outfalls along the northern bank of Salt Creek Channel, which would discharge cleansed flows from the development water quality basins into the creek.

1.2.8 - Construction and Phasing

The proposed project would import 343,000 cubic yards of soil during grading. Construction is anticipated to begin in January 2025, with an anticipated project completion date of May 2029.

SECTION 2: INTRODUCTION

This document presents the results of a DBESP analysis conducted by FirstCarbon Solutions for the Salt Creek Residential Outfall Structure Project as required under Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools, of the 2004 Western Riverside County MSHCP (2004 MSHCP).

2.1 - Project Location and Setting

The approximately 55.61-acre project site is located in the City of Menifee, in Riverside County, California (Exhibit 1). Menifee is surrounded by the City of Perris to the north, the community of Winchester to the east, the cities of Murrieta and Wildomar to the south, and the cities of Lake Elsinore and Canyon Lake to the west. Regional access to the site is provided via I-215, which bisects the City north to south. Local access to the site is provided via Simpson Road.

The site is located at the southwest corner of Briggs Road and Simpson Road, on one parcel which includes Assessor's Parcel Number (APN) 333-200-062, with off-site outfall locations occurring on two parcels which include APNs 333-200-055 and 333-200-057. The site is located within the *Romoland, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

The project site is located within the MSHCP Plan Area and is not within or adjacent to a Criteria Cell. The nearest Criteria Cell Group (3887) is located approximately 4.7 miles northeast of the project site. The project site is partially within and adjacent to a Conservation Area, the Salt Creek Channel, a PQP Conserved Land located within the outfall areas of the project site and adjacent to the southern boundary of the project site (Exhibit 3). Other Conservation Areas in the project vicinity include Bureau of Land Management (BLM) Exchange Parcels (PQP Conserved Land) approximately 1.4 miles southeast of the project site and Diamond Valley Lake Reservoir (PQP Conserved Land) approximately 4.3 miles southeast of the project site. This project area is not located within any Linkage.

The project site is located in MSHCP Covered Species survey areas for burrowing owl and the following six MSHCP narrow endemic plant species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The project area is not located in Covered Species survey areas for amphibians, mammals, Delhi Sands Flower-loving Fly, or criteria area plant species (Exhibit 4).

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Source: Bing Aerial Imagery. Western Riverside County Regional Conservation Authority (RCA) MSHCP. Riverside County Fire and Flood Control.

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Exhibit 3
MSHCP Conserved Public Quasi-Public Lands

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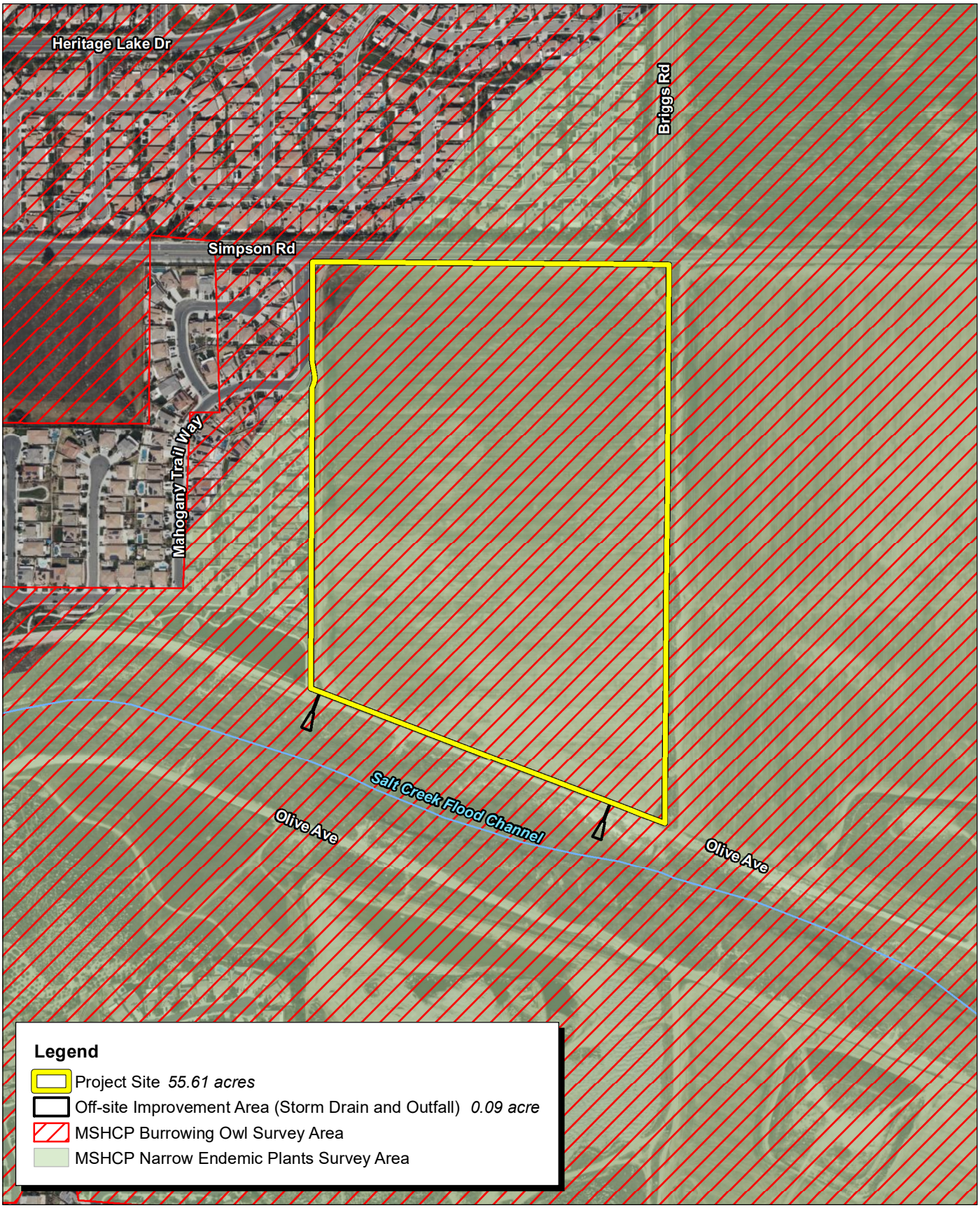

Source: Bing Aerial Imagery. Western Riverside County Regional Conservation Authority (RCA) MSHCP.

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Exhibit 4
MSHCP Relationship Map

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2.2 - Project Description

The proposed project would require the construction of two outfall structures within the Salt Creek flood prone area. Specifically, these two outfall structures would be constructed in/along the northern bank of Salt Creek extending southerly toward the bed of the creek.

2.3 - Existing Conditions

The project site is situated on agricultural fields adjacent to Salt Creek Channel in the Menifee Valley. Menifee is within the San Jacinto Basin, a broad area of valleys and hills bounded by the San Jacinto Mountains and San Gorgonio Badlands on the northeast; the Box Springs Mountains on the north; and the Santa Ana Mountains on the southwest. The project site is generally flat; elevation ranges between approximately 1,440 feet (439 meters) above mean sea level on the south side of the project site to approximately 1,450 feet (442 meters) on the north side of the site.

2.3.1 - Vegetation Communities and Land Use

The project site consists predominantly of agricultural fields used for wheat cultivation. At the time of the surveys in 2023, the wheat had been harvested and the field was in a fallowed state. During the 2024 surveys, the wheat was in a low to medium growth state due to recent rainfall. Areas around the perimeter of the project site that bordered the wheat field exhibited disturbed surfaces supporting ruderal, weedy vegetation. Residential developments are located adjacent to the project on its western and northern borders. An agricultural field is located on the parcel to the east of the project site. A drainage ditch adjacent to the project site on its eastern border separates the two agricultural fields and appears to convey water to Salt Creek, located south of the project site. The drainage ditch is located outside of the project boundary and supports ruderal, weedy vegetation. The outfall locations, as well as the area between the southern border of the site and Salt Creek, support weedy, ruderal vegetation. The Salt Creek Channel, located about 150 feet south of the project site, supports sparse riparian vegetation. The vegetation communities and land cover types recorded on and within 500 feet of the project site are summarized in Table 1. A map showing vegetation communities and land cover types is presented in Exhibit 5 Photographs are presented in Appendix A.

Table 1: Vegetation Communities Acreages

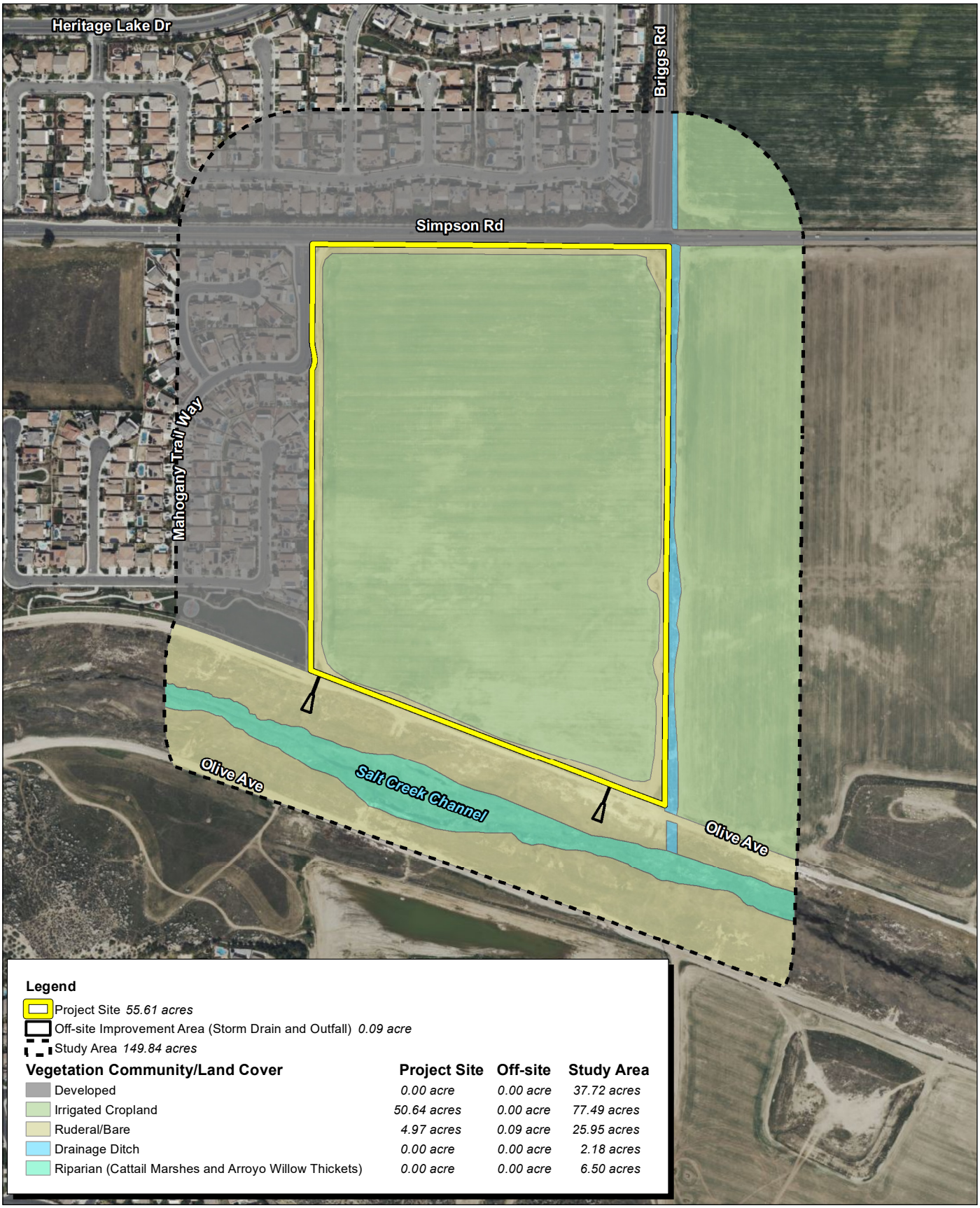
Vegetation Community	Project Site	Off-site (outfalls)	Study Area
Developed	0.00 acre	0.00 acre	37.72 acres
Irrigated Cropland	50.64 acres	0.00 acre	77.49 acres
Ruderal/Bare	4.97 acres	0.09 acre	25.95 acres
Drainage Ditch	0.00 acre	0.00 acre	2.18 acres
Riparian (Cattail Marshes and Arroyo Willow Thickets)	0.00 acre	0.00 acre	6.50 acres

Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) mapped five soil types (Domino silt loam, saline-alkali; Domino silt loam, strongly saline-alkali; Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes; Greenfield sandy loam, 0 to 2 percent slopes; and Ramona sandy loam, 0 to 5 percent slopes, severely eroded) on the project site (Exhibit 6). The Domino series soils are grayish brown, moderately alkaline, silt loam and consist of moderately deep, moderately well drained soils over lime-cemented hardpans. The Exeter series soils are brown and dark brown, neutral to slightly alkaline loam and consist of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. The Greenfield series soils are pale brown, slightly acid, coarse sandy loam and consist of deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. The Ramona series soils are brown, slightly to medium acid, sandy loam and fine sandy loam.

Wildlife

General wildlife species documented on-site include but are not limited to house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), ash-throated flycatcher (*Myiarchus cinerascens*), Brewer's blackbird (*Euphagus cyanocephalus*), Say's phoebe (*Sayornis saya*), red-tailed hawk (*Buteo jamaicensis*), western meadowlark (*Sturnella neglecta*), red-winged blackbird (*Agelaius phoeniceus*), barn swallow (*Hirundo rustica*), northern rough-winged swallow (*Stelgidopteryx serripennis*), rock pigeon (*Columba livia*), common raven (*Corvus corax*), California ground squirrels (*Otospermophilus beecheyi*) and burrows, and raccoon (*Procyon lotor*) and valley pocket gopher (*Thomomys bottae*) carcasses.



Vegetation Community/Land Cover	Project Site	Off-site	Study Area
Developed	0.00 acre	0.00 acre	37.72 acres
Irrigated Cropland	50.64 acres	0.00 acre	77.49 acres
Ruderal/Bare	4.97 acres	0.09 acre	25.95 acres
Drainage Ditch	0.00 acre	0.00 acre	2.18 acres
Riparian (Cattail Marshes and Arroyo Willow Thickets)	0.00 acre	0.00 acre	6.50 acres

Source: Bing Aerial Imagery. Kimley-Horn Engineers, 07/2023. Riverside County Fire and Flood Control.

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Exhibit 5
Vegetation Community/ Land Cover Map

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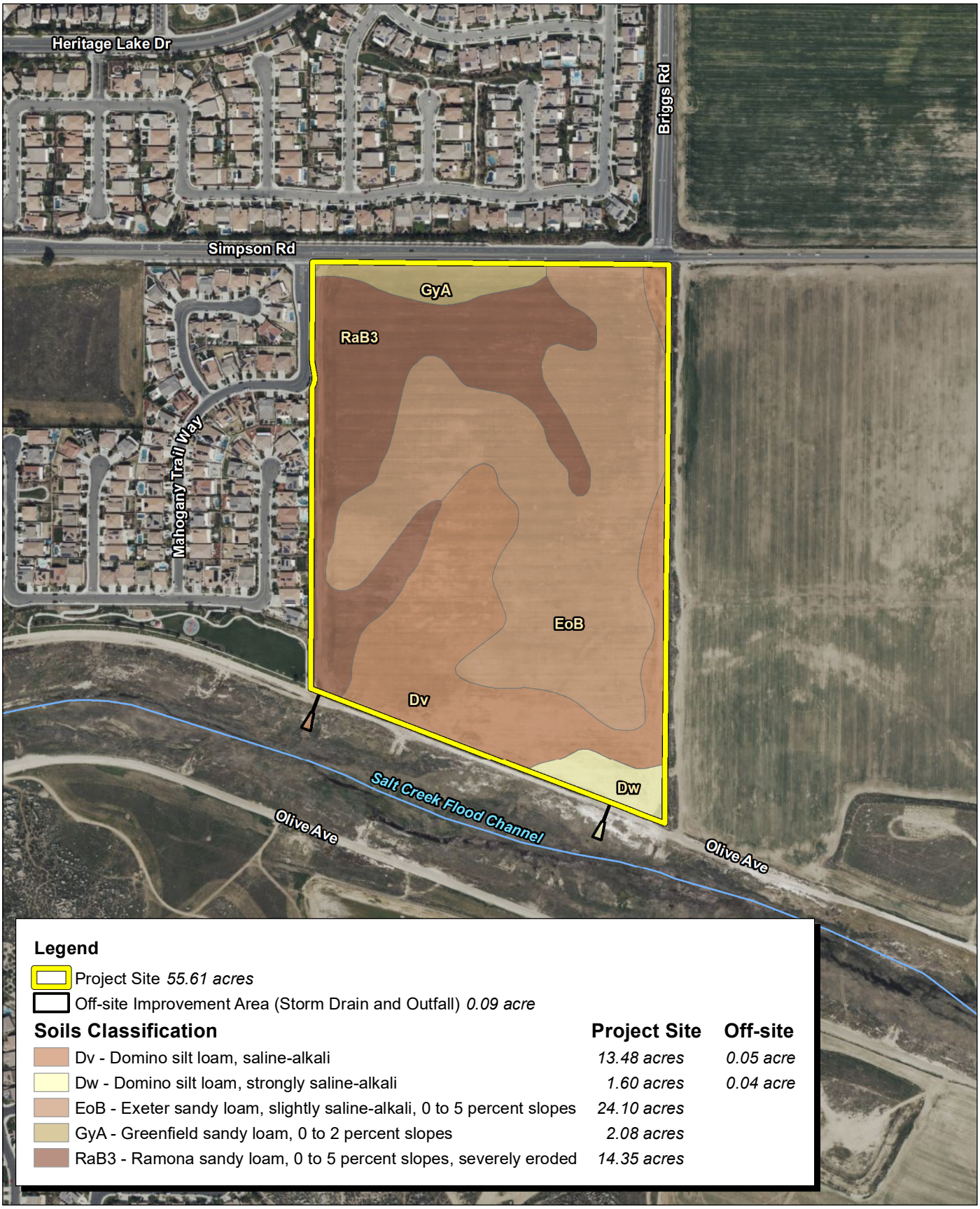

Source: Bing Aerial Imagery. USDA Soils Data Mart, Western Riverside County. Riverside County Fire and Flood Control.

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Feet

Exhibit 6
Soils Map

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SECTION 3: RIPARIAN, RIVERINE, VERNAL POOL MITIGATION (SECTION 6.1.2)

3.1 - Methods

A formal jurisdictional delineation of wetlands/waters was completed by South Environmental in September 2023 (Appendix B). The delineation determined the boundaries or absence of potential wetland and non-wetland waters of the United States subject to the regulatory jurisdiction of the United States Army Corps of Engineers (USACE) pursuant to Clean Water Act (CWA) Section 404; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to CWA Section 401 and State Porter-Cologne Water Quality Control Act (Porter-Cologne); streambed and riparian habitat subject to the regulatory jurisdiction of the California Department of Fish and Wildlife (CDFW) pursuant Sections 1600 *et seq*. of the California Fish and Game Code. All resources delineated as CDFW jurisdictional features were also defined as Western Riverside County MSHCP Section 6.1.2 Riverine resources.

3.2 - Results/Impacts

Regulated activities within inland streams, wetlands and riparian areas in western Riverside County fall under the jurisdiction of the MSHCP 6.1.2. The MSHCP requires, among other things, assessments for riparian/riverine and vernal pool resources. As projects are proposed within the MSHCP Plan Area, an assessment of the potentially significant effects of those projects on riparian/riverine areas, and vernal pools are required, as currently mandated by the California Environmental Quality Act (CEQA), using available information augmented by project-specific mapping provided to and reviewed by the permittee's Biologist(s). Riparian/riverine areas and vernal pools are defined for this section as follows in accordance with Section 6.1.2, Vol. I, of the Final MSHCP Plan:

"Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergent, 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" (2004 MSHCP).

It is assumed the first part of the definition defines riparian habitat, and the second part defines riverine areas. Vernal pools are defined as:

> . . . seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season (2004 MSHCP).

No evidence of vernal pools, seasonal depressions, or seasonally inundated road ruts were documented within the Study Area. The only inundated regions of the Study Area included Drainage No. 1 and the active channel of Salt Creek, which occurs outside of the proposed project's permanent impact area but inside of the off-site improvement area, requiring the construction of two 48-inch outfalls along the northern bank of Salt Creek Channel. The outfall structures would be constructed within the north bank of Salt Creek where topography would not support pooling. No sign or indication of inundation was documented within the dirt access roads within the Study Area during a review of historic aerials. According to the NRCS WSS (2023), five soil types are mapped on the project site (Exhibit 6). One of these soil types, the Ramona series, is known to be soil utilized by fairy shrimp species known to occur in the Western Riverside County MSHCP Plan Area.[1] However, the surface soils on the project site have a long history of disturbances due to agricultural use of the site, and vernal pools would not be able to form or persist under this land use regime.

In summary, none of the conditions (i.e., no inundated depressions including road ruts, historic inundation, etc.) were observed or documented within the Study Area's permanent impact areas. No features are present that would support common or listed fairy shrimp.

As previously stated, for purposes of assessing existing conditions and impacts, all resources delineated as CDFW regulated features were also characterized as MSHCP Section 6.1.2 Riverine resources (Exhibit 7). The CDFW/MSHCP jurisdiction is associated with Salt Creek and is summarized by site-specific descriptions outlined below.

3.2.1 - PQP Impacts

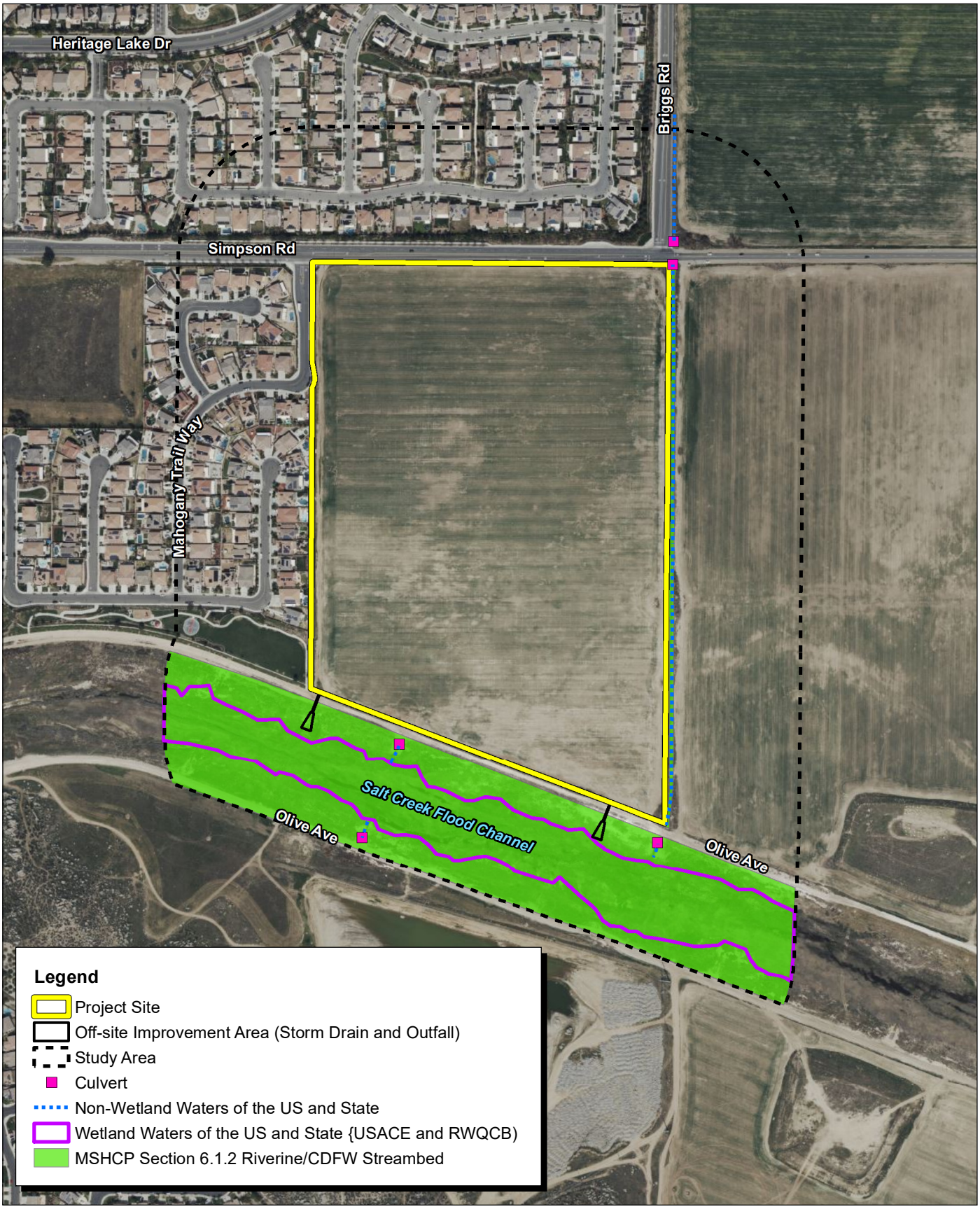
Permanent impacts to 0.07-acre of PQP Conserved Land would occur as a result of project implementation (Exhibit 8). This 0.07 acre is a component of the 0.09 acre of impact to MSHCP Riparian/Riverine habitat.

3.2.2 - Section 6.1.2 Riverine Impacts

Drainage No. 1, located off-site and along the eastern edge of the project site, would not be disturbed as part of the proposed project. Implementation of standard Best Management Practices (BMPs), as discussed in Sections 3.3 and 3.3.2 would avoid any potential impacts to Drainage No. 1.

A total of 0.09 acre of MSHCP Section 6.1.2 Riverine resources within Salt Creek would be permanently impacted as a result of project initiation (Exhibit 8).

[1] United States Fish and Wildlife Service (USFWS). 2006. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Website: https://www.federalregister.gov/documents/2006/03/07/06-1984/recovery-plan-for-vernal-pool-ecosystems-of-california-and-southern-oregon. Accessed February 26, 2024.



Source: Bing Aerial Imagery. South Environmental. Western Riverside County Regional Conservation Authority (RCA) MSHCP

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Exhibit 7
MSHCP Section 6.1.2 Riverine Map

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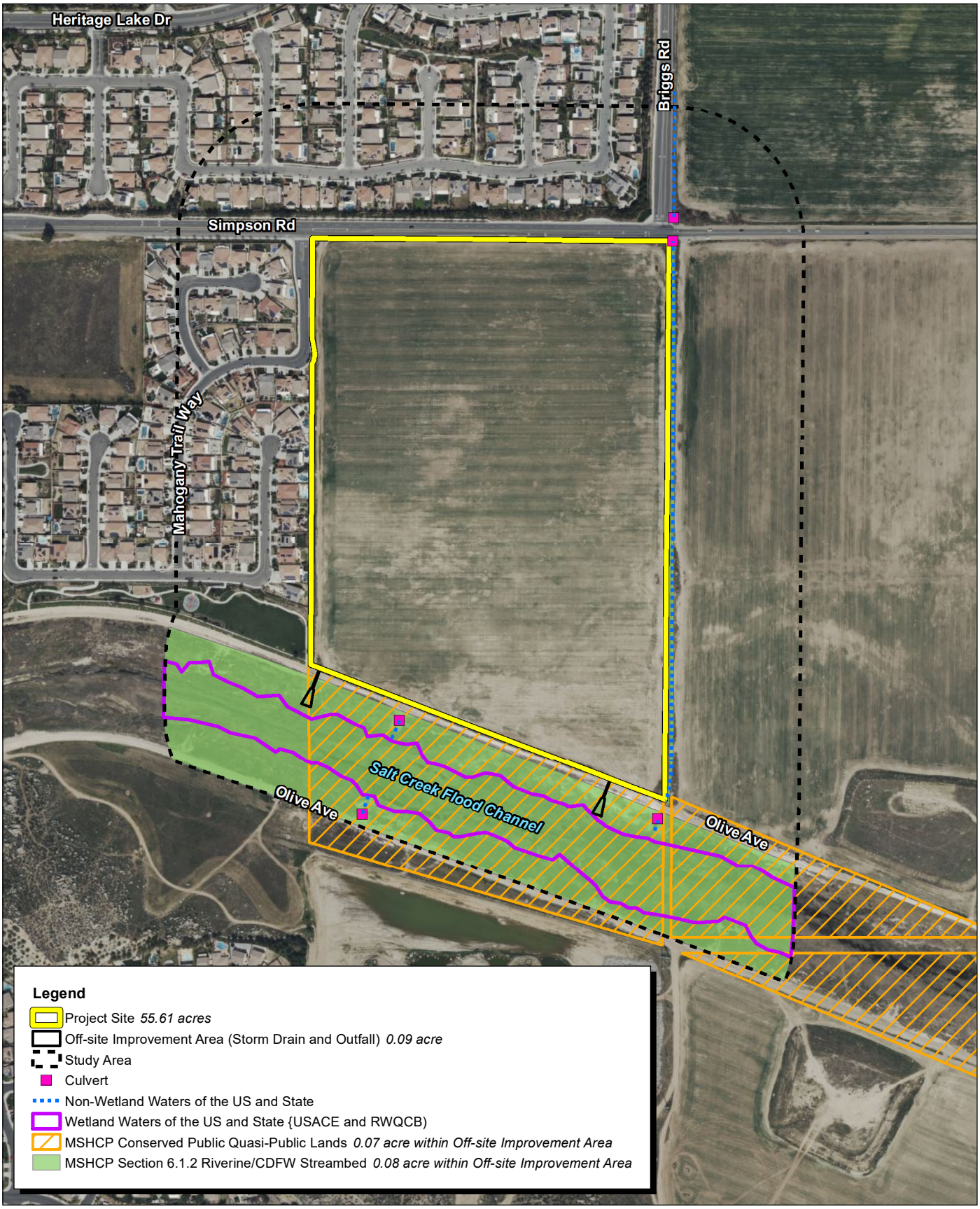

Source: Bing Aerial Imagery. South Environmental. Western Riverside County Regional Conservation Authority (RCA) MSHCP

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Exhibit 8
MSHCP Riverine and PQP Impacts

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3.3 - Mitigation and Equivalency

The following mitigation strategy is proposed to meet the criteria of a biologically equivalent or superior alternative and offset permanent impacts to MSHCP Section 6.1.2 Riverine resources:

- Permanent impacts to 0.09 acre of MSHCP Section 6.1.2 Riverine resources would be mitigated at a ratio of 4:1 through purchase of 0.36 acre of preservation credits at the Barry Jones/Skunk Hollow Mitigation Bank.

According to the CDFW, the Barry Jones/Skunk Hallow Mitigation Bank is an approximately 140-acre mitigation bank located in Riverside County, approximately 35 miles south of the City of Riverside and approximately 39 miles north of the City of Escondido. The service area for the mitigation bank includes all of western Riverside County.

The primary objective of the mitigation bank is to maintain the overall diversity of native flora and fauna within the Barry Jones/Skunk Hollow Preserve through the preservation of wetland and vernal pool habitats. The purpose of the mitigation bank is to replace functions and services of aquatic resources and associated habitats that have been degraded or destroyed as a result of activities conducted in compliance or in violation of Section 404 of the CWA. The proposed mitigation strategy would provide mitigation for both permanent and temporary impacts to waters of the United States under USACE jurisdiction and waters of the State under CDFW jurisdiction. The proposed preserve habitat would provide greater function and value than the impacted habitat, supplying equivalent or superior preservation under the MSHCP.

The following mitigation strategy is proposed to meet the criteria of a biologically equivalent or superior alternative and offset permanent impacts to PQP Conserved Land and graceful tarplant resources:

- Permanent impacts to 0.07 acre of PQP land and graceful tarplant would be mitigated through the purchase of six pounds graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.

The following mitigation strategy is proposed to avoid any impacts on Drainage No. 1:

- Prior to construction, the limit of Drainage No. 1 shall be delineated with fencing or flagging (orange plastic snow fence, orange silt fencing, or stakes and flagging) and designated as an Environmentally Sensitive Area (ESA). No construction activities and/or access would be permitted within the ESA designated areas. If work occurs within the ESA areas, all work shall cease until the issue has been resolved through the appropriate regulatory agencies and the City. ESA fencing and/or flagging shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction.
- The proposed project would comply with all applicable water quality regulations, including obtaining and complying with those conditions established in Waste Discharge Requirements

(WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit. Standard BMPs, which may include but are not limited to silt fencing, gravel berm, fiber rolls shall be installed to prevent any sediment and stormwater flows from entering Drainage No. 1. A project-specific Water Quality Management Plan and/or a Storm Water Pollution Prevention Plan (SWPPP) shall be implemented for the proposed project, detailing project-specific BMPs.

3.3.1 - Direct Effects

Direct impacts are considered to be those that involve the loss, modification, or disturbance of natural resources or habitats (i.e., vegetative communities or substrate) that in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts include the destruction of individual plants or wildlife of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals may also directly affect area-wide population numbers or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Permanent impacts to 0.07 acre of PQP Conserved Land would occur as a result of project implementation. A total of 0.09 acre of MSHCP Section 6.1.2 Riverine resources within Salt Creek would be permanently impacted as a result of project initiation.

The 0.07 acre of permanent impact to PQP lands would be a component of the 0.09 acre of permanent impact to MSHCP Riverine/Riparian habitat described above.

3.3.2 - Indirect Effects

Indirect impacts are considered to be those impacts associated with the proposed project that involve the effects of alteration of the existing habitat and an increase in human population and or land use within the project site. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to the project site.

Indirect impacts also include the effects of increases in ambient levels of sensory stimuli (e.g., noise and light), unnatural predators (e.g., domestic cats and other non-native animals), competitors (e.g., exotic plants and non-native animals), and trampling and unauthorized recreational use due to the increase in human population. Other permanent indirect effects may occur that are related to water quality and stormwater management, including trash/debris, toxic materials, and dust.

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area.

As previously stated, the proposed project includes the construction of two outfall structures on the northern bank of Salt Creek. Future flows entering the Study Area would be captured and treated within two bioretention basins located north of the Salt Creek flood prone area. The temporary capture, treatment and release of flows may indirectly affect riverine and/or sensitive resources downstream of the Study Area through the introduction of invasive species. To avoid any impacts to downstream MSHCP riparian/riverine the bioretention basins would be vegetated with native and

locally common plant species such as field sedge (*Carex praegracilis*), wild rye (*Elymus triticoides*), California melic (*Melica imperfecta*), common rush (*Juncus effusus*), or similar native plants.

Water Quality/Hydrology

The proposed project would comply with all applicable water quality regulations, including obtaining and complying with those conditions established in WDRs and a NPDES permit. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable BMPs during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any stream course.

Toxics

Stormwater treatment systems would be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources. Toxic sources within the project site would be limited to those commonly associated with residential development, such as pesticides, insecticides, herbicides, fertilizers, and vehicle emissions. In order to mitigate the potential effects of these toxics, the proposed project would incorporate structural BMPs, as required in association with compliance with WDRs and the NPDES permit system, in order to reduce or prevent the level of toxins introduced into Salt Creek.

Lighting

Night lighting would be directed away from the Salt Creek Channel to protect species within this MSHCP Conservation Area from direct night lighting. Shielding would be incorporated in project designs to ensure ambient lighting in the Salt Creek Channel is not increased.

Noise

Because the proposed project would not result in noise levels that exceed residential, commercial or mixed-use noise standards established for Riverside County, wildlife within open space habitats within the Study Area would not be subject to noise that exceeds these established standards. Short-term construction-related noise impacts would be reduced by the implementation of the following:

- During all Study Area excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.
- The Construction Contractor shall limit all construction-related activities that would result in high noise levels according to the construction hours to be determined by City of Menifee staff.
- The Construction Contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

Invasive Species

Invasive species would not be used in landscaping in the open space area planned for the southern portion of the project site. Invasive species that would not be used in landscaping are listed in the MSHCP Final Plan, Volume 1, Table 6-2. Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.

Barriers

The proposed project would incorporate barriers along the southern border to minimize unauthorized public access, illegal trespass, or dumping into the Salt Creek Channel. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or other appropriate mechanisms.

Implementation of all Urban/Wildlands Interface guidelines would minimize adverse indirect impacts and ensure consistency with MSHCP Section 6.1.4 Guidelines.

SECTION 4: NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)

The MSHCP has determined that all of the sensitive species potentially occurring on-site or within the off-site project site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Additional surveys may be required for narrow endemic plants if suitable habitat is documented, and the assessment area is located within a predetermined "Survey Area" (2004 MSHCP).

The project site is located in MSHCP Covered Species survey areas for the following six MSHCP narrow endemic plant species: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis.

4.1 - Methods

Existing biological resources within and adjacent to the Study Area were investigated through a review of pertinent literature and online data. This included literature pertaining to the MSHCP Conservation Area, habitat requirements of special-status species with the potential to occur in the project vicinity, federal register listings, protocols, and species data provided by the MSHCP, United States Fish and Wildlife Service (USFWS), and CDFW. FirstCarbon Solutions (FCS) Biologists also reviewed United States Department of Agriculture (USDA) soil surveys to establish if soil conditions in the project site are suitable for any special-status plant species.[2] An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the USFWS Information for Planning and Consultation (iPaC) database,[3] the California Natural Diversity Database (CNDDB), and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California.[4,5] The CNDDB search focused on species records within 5 and 10 miles of the project site. The CNPSEI search focused on records from the *Romoland, California* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles. The CNDDB Biogeographic Information and Observation System (BIOS 6) was used to determine distances between species occurrences and the project site.[6]

A general biological survey and vegetation community mapping of the project site was performed on May 18, 2023, by FCS Principal Biologist Michael Tuma, PhD. Additional assessments of the site and areas for proposed outfalls were conducted on September 18, 2023, by Dr. Tuma and representatives of South Environmental.

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2 Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. February 26, 2024.

3 United States Fish and Wildlife Service (USFWS). 2023. Information for Planning and Consultation (IPaC). Website: https://ecos.fws.gov/ipac/. Accessed February 26, 2024.

4 California Department of Fish and Wildlife (CDFW). 2023. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx. Accessed February 26, 2024.

5 California Native Plant Society (CNPS). 2023. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed February 26, 2024.

6 California Department of Fish and Wildlife (CDFW). 2023. Biogeographic Information and Observation System (BIOS 6). Website: https://wildlife.ca.gov/Data/BIOS. Accessed February 26, 2024.

4.2 - Results/Impacts

No MSHCP narrow endemic plants were detected within the Study Area during site surveys conducted in May and September 2023. None of the six narrow endemic species are expected to occur due to lack of suitable habitat on-site or in the off-site locations for the two outfall structures along the banks of Salt Creek Channel. Because suitable habitat for these narrow endemic plants is not present on the project site, rare plant surveys would not be required and no impact to narrow endemic plants would occur.

4.3 - Mitigation and Equivalency

No impact and no mitigation proposed.

4.3.1 - Direct Effects

No impact and no mitigation proposed.

4.3.2 - Indirect Effects

No impact and no mitigation proposed.

SECTION 5: CRITERIA AREA SPECIES MITIGATION (SECTION 6.3.2)

The MSHCP has determined that all of the sensitive species potentially occurring on-site or within the off-site project site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Additional surveys may be required for criteria area species if suitable habitat is documented on-site, and the assessment areas are located within a predetermined "Survey Area" (2004 MSHCP).

5.1 - Criteria Area Species Survey Area–Plants

The Study Area does not occur within an MSHCP Criteria Area Plant Species Survey Area (CAPSSA).

5.1.1 - Methods

The Study Area does not occur within an MSHCP CAPSSA; therefore, no focused surveys for CAPSSA species are required.

5.1.2 - Results/Impacts

The Study Area does not occur within an MSHCP CAPSSA Survey Area; therefore, no focused surveys are required.

5.1.3 - Mitigation and Equivalency

The Study Area does not occur within an MSHCP CAPSSA Survey Area; therefore, no mitigation is required.

5.2 - Species Survey Area–Burrowing Owl

MSHCP has determined that all of the sensitive species potentially occurring on-site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). Additional surveys may be required for wildlife species if suitable habitat is documented on-site and/or if the property is located within a predetermined "Survey Area" (2004 MSHCP).

The project site is located in MSHCP Covered Species survey areas for burrowing owl, and breeding season surveys were conducted in March and April 2024 to address this survey requirement.

Methods

Existing biological resources within and adjacent to the Study Area were investigated through a review of pertinent literature and online data. This included literature pertaining to the MSHCP Conservation Area, habitat requirements of special-status species with the potential to occur in the project vicinity, federal register listings, protocols, and species data provided by the MSHCP, USFWS, and CDFW. An FCS Biologist compiled information about the occurrence of burrowing owls previously recorded in the project vicinity. FCS accessed the CDFW California Natural Diversity

Database (CNDDB) and the USFWS IPaC online planning tool.[7,8] The CNDDB Biogeographic Information and Observation System (BIOS 6) database was used to determine the distance between known recorded occurrences of burrowing owls and the project site.[9]

Potential habitat for burrowing owl was assessed during the site surveys in May and September 2023. This habitat assessment was reaffirmed during March and April 2024 surveys.

5.2.1 - Results/Impacts

The majority of the project site supports suitable foraging, burrowing, and nesting habitat for burrowing owls. The vegetation is low to medium growth over the project site and there are numerous California ground squirrel burrows on-site that could be used by burrowing owls. For these reasons, there is a moderate potential for burrowing owls to occupy the project site, although burrowing owls were not identified on-site during surveys. The CNDDB shows 76 recent and 16 historical records of burrowing owls within 10 miles of the project site. This species is covered under the MSHCP and protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Codes. No burrowing owl or characteristic sign such as white-wash, feathers, tracks, or pellets were detected within or immediately adjacent to the Study Area during the May and September 2023 surveys.

A protocol habitat assessment, burrow survey, and breeding season burrowing owl surveys were conducted by FCS Staff Biologist Kyle Killian between March 29 and April 17, 2024. No burrowing owl or sign was observed on or adjacent to the site. However, suitable California ground squirrel burrows are present within the wheat fields and ruderal areas. Therefore, it may be possible that the site could be inhabited by burrowing owls in the future, and thus, presence of this species cannot be ruled out.

Construction of the proposed project could potentially impact burrowing owls if burrowing owls are occupying the project site when ground-disturbing construction activities are initiated. Impacts could occur outside of the nesting season (September 1 through February 28) or during the breeding season (March 1 through August 31) of the species.

5.2.2 - Mitigation and Equivalency

The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey to determine whether burrowing owls are present on-site within 30 days prior to construction activities, according to the CDFW guidelines and MSHCP protocol. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows shall be mapped on an aerial photo. The applicant shall provide a burrowing owl survey report and mapping to the City prior to the expected start of any project-related ground disturbance activities or restart of activities. If the survey is positive for burrowing owls, the project applicant shall implement a

[7] United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/. Accessed April 4, 2024.

[8] California Department of Fish and Wildlife (CDFW). 2024. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed April 4, 2024.

[9] California Department of Fish and Wildlife (CDFW). 2024. Biogeographic Information and Observation System (BIOS 6). Website: https://map.dfg.ca.gov/bios/. Accessed April 4, 2024.

Burrowing Owl Mitigation Plan in coordination with the City, the CDFW, the USFWS, and the Western Riverside County Regional Conservation Authority (RCA) (if coordination with the RCA is necessary). If no burrowing owls are detected during the pre-construction survey, no further action is necessary.

If the pre-construction survey is positive for burrowing owls, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the CDFW 2012 Guidelines) at a minimum:

- Avoidance of burrowing owls during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through January 31) or a 200 to 500 meter radius around occupied burrows during the breeding season (February 1 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owls have dispersed from the area; or (2) breeding season owls have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

5.3 - Criteria Area Species Survey Area–Mammals

The MSHCP has determined that all of the sensitive species potentially occurring on-site or within the off-site project site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required if suitable habitat for mammals is documented on-site, and the property is located within a predetermined “Survey Area” (2004 MSHCP).

The Study Area does not occur within a predetermined Survey Area for mammal species. Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Study Area.

5.3.1 - Methods

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Study Area.

5.3.2 - Results/Impacts

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Study Area.

5.3.3 - Mitigation and Equivalency

Compliance with Section 6.1.3 respective of MSHCP mammals is not applicable to the proposed Study Area.

5.4 - Criteria Area Species Survey Area–Amphibians

The MSHCP has determined that all of the sensitive species potentially occurring on-site or within the off-site project site have been adequately covered (MSHCP Table 2-2 Species Considered for Conservation Under the MSHCP Since 1999, 2004). However, additional surveys may be required if suitable habitat for amphibians is documented on-site, and the property is located within a predetermined "Survey Area" (2004 MSHCP).

The Study Area does not occur within a predetermined Survey Area for amphibian species. Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Study Area.

5.4.1 - Methods

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Study Area.

5.4.2 - Results/Impacts

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Study Area.

5.4.3 - Mitigation and Equivalency

Compliance with Section 6.1.3 respective of MSHCP amphibians is not applicable to the proposed Study Area.

SECTION 6: OTHER MSHCP COVERED SPECIES

6.1 - Results/Impacts

The Study Area does not contain graceful tarplant (*Holocarpha virgata ssp. Elongata*) but in cooperation with the Wildlife Agencies (Comment letter FWS/CDFW-WRIV-2024-0107363) this DBESP document will analyze this species as if it were present.

6.2 - Mitigation and Equivalency

Per coordination with the Wildlife Agencies the following mitigation strategy to offset impacts to graceful tarplant is as follows (also provided in Section 3.3):

1. Permanent impacts to 0.07 acre of PQP land and graceful tarplant would be mitigated through the purchase of 6 pounds of graceful tarplant seeds that will be provided to Riverpark Mitigation Bank to establish a population of graceful tarplant on 3 acres of alkali meadow on Riverpark property.

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SECTION 7: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this Determination of Biologically Equivalent or Superior Preservation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: July 22, 2024 Signed: 

Martin A. Rasnick, Associate Director, Biological Services
FirstCarbon Solutions
967 Kendall Drive, #A-537
San Bernardino, CA 92407
714.508.4100

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Appendix A:
Site Photographs

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Photograph 1: View of Salt Creek Channel from the southern border of the project site, facing south.

Photograph 2: View of existing drainage outfall along the eastern border.

Photograph 3: View of proposed eastern outfall location.

Photograph 4: View of existing western outfall.

Photograph 5: View of proposed western outfall location.

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Appendix B:
South Environmental Jurisdictional Delineation Report

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2061 N Los Robles Ave., #205 Pasadena, California 91104 / www.southenvironmental.com

December 1, 2023

Martin Rasnick
Associate Director of Biological Services
FirstCarbon Solutions
Email: mrasnick@fcs-intl.com
Phone: 602-501-1471

RE: Jurisdictional Delineation for the Salt Creek Project in Menifee, California

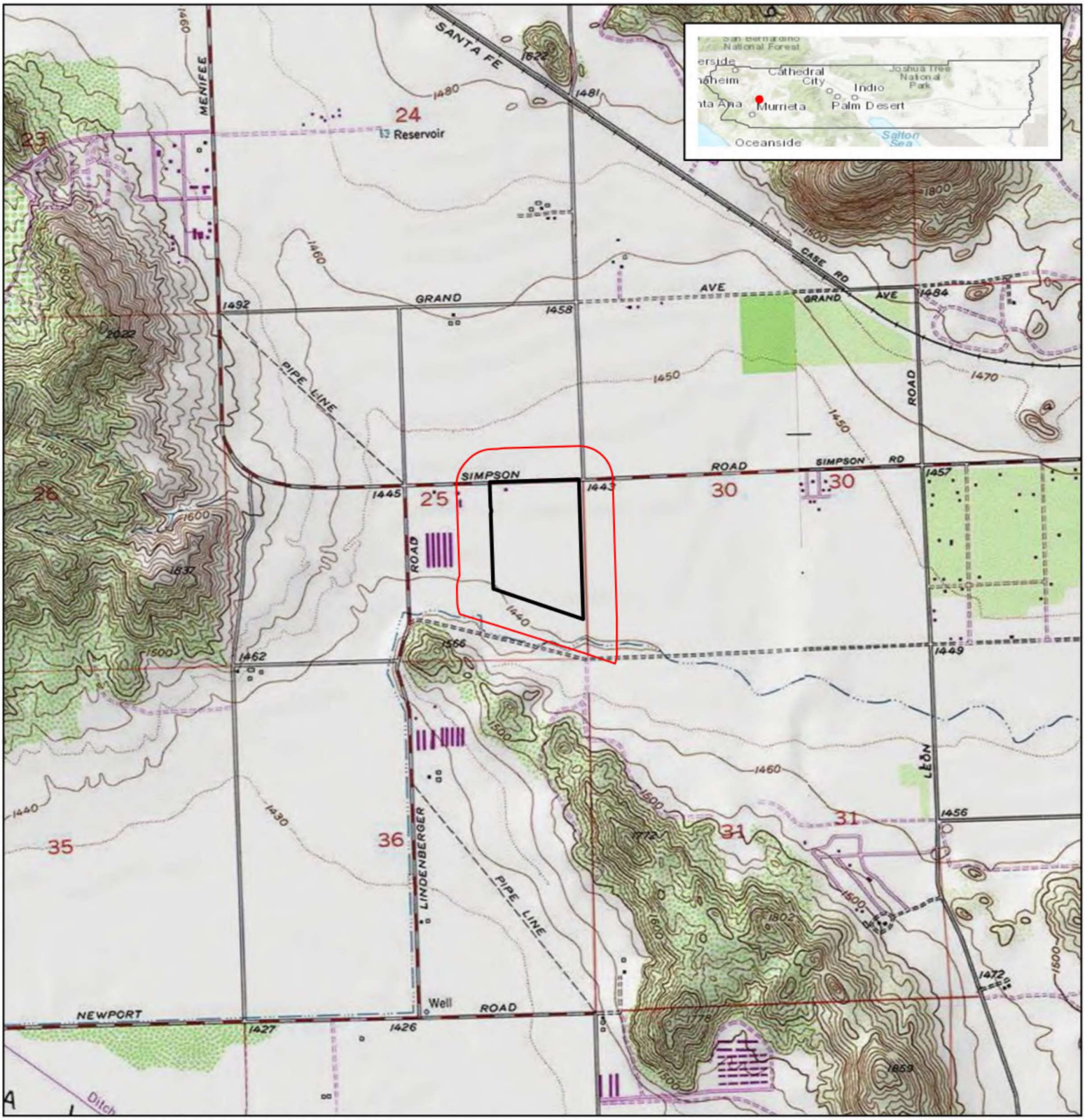
Dear Mr. Rasnick,

This letter includes results of a Jurisdictional Delineation and an assessment of impacts from the Salt Creek Project (project) in Menifee, California. The scope of this letter report includes a description of the project, methodology, results of the survey, a delineation of the jurisdictional resources on the project site and study area (500-foot buffer around the project site), an assessment of potential impacts to jurisdictional features, and recommendations for permitting and mitigation for the proposed impacts.

Project Description

Location

The project site includes 55.61-acres where a new residential community is proposed to be located north of Domenigoni Parkway, south of Simpson Road, east of Briggs Road, and west of La Ventana Road (attached Figure 1 and Figure 2). The project site will include the construction of two outfall connections in Salt Creek, and therefore is considered public-quasi public lands (PQP). It contains three parcels with the following Assessor's Parcel Numbers [APNs]: 333-200-062, 333-200-055, and 333-200-057. The project site is on the Romoland USGS 7.5-minute quad in Section 25 of Township 05 South and Range 03 West. The areas surrounding the project site to the north and west are residential communities with single-family homes whereas the areas surrounding the project to the northeast, south, and east are agricultural lands or disturbed native plant communities in flat or mountainous settings.



Source: ESRI USA Topo Maps and World Topo Map 2023

Salt Creek Project

Figure 1. Project Location

Study Area

Project Site

Project Site is within Menifee, California, in Riverside County on the USGS Romoland 7.5-minute quadrangle map in Section 25 of Township 05 South and Range 03 West

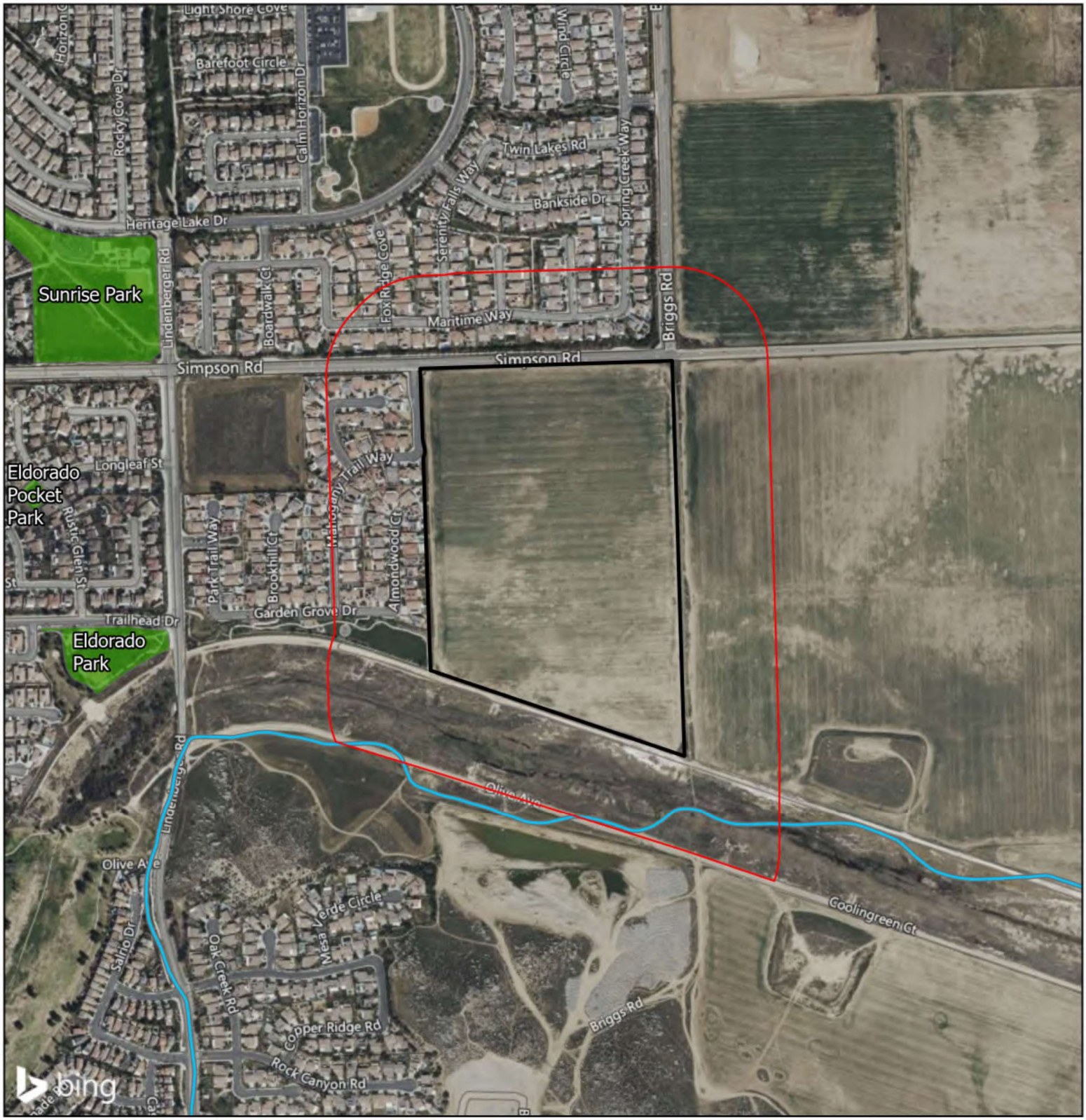
Center Coordinate (Decimal Degrees):
Latitude: 33.7035033N Longitude: -117.1386340W

0 1,000 2,000 Feet

Scale: 1:24,000

N

SOUTH ENVIRONMENTAL



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 2. Project Vicinity

0 425 850 Feet

Scale: 1:8,500

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- Project Site
- Study Area
- USFWS - National Wetlands Inventory (NWI)
- California Protected Area Database (CPAD)

SOUTH ENVIRONMENTAL

Proposed Development

As shown in Figure 3 and in the attached Site Plan, the project includes the construction of a residential community with single-family homes, streets, sidewalks, landscaping, a neighborhood park, sewer and utility lines, water quality basins, and two outfalls constructed to discharge flows into Salt Creek. Up to 329 single-family houses are proposed which will be served by 13 newly constructed streets and a half section of the Briggs Road extension would be constructed on the east side of the houses. Sewer and utility lines including telecommunications poles and cables and water and electricity lines will be developed throughout the community and water quality basins will be located on the west and east sides of the project. A neighborhood park with adjacent parking will be developed on the southern edge of the development.

Regulatory Setting

Federal Regulations

Clean Water Act Sections 404 and 401

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged and fill material into waters of the United States (U.S.), including wetlands. Activities in waters of the U.S. or wetlands regulated under this program include fill as a result of projects such as development, water resource projects (such as dams and levees), infrastructure development and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U.S.

Section 401 of the CWA requires that any person applying for a federal permit or license which may result in a discharge of pollutants into waters of the United States (such as a Clean Water Act Permit under Section 404), must obtain a state water quality certification stating that the activity complies with all applicable water quality standards, limitations, and restrictions. No license or permit may be issued by a federal agency until certification required by section 401 has been granted or waived.

Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 3. Proposed Development

0 175 350 Feet

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Scale: 1:3,500

Project Site

Proposed Development

Offsite Outfall Structure and Dispersion Area

Residential Development

SOUTH ENVIRONMENTAL

California Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act requires the adoption of water quality control plans (basin plans) that give direction to managing water pollution in California. The basin plans get adopted and administered by the Regional Water Quality Control Board (RWQCB). The plans incorporate the beneficial uses of the waters of the State and then provide objectives that should be met to maintain and protect these uses. Along with the Regional Water Boards, the State Water Resources Board can issue and enforce permits containing waste discharge requirements to maintain clean surface water and groundwater. Each basin plan identifies the specific beneficial uses of water in their region for the past, present, and future. These basin plans also all have objectives for which the plan clearly states steps that are being taken or will be taken to meet the objectives. These objectives are created for the purpose of keeping the water clean and safe to use beneficially. The Regional Board has the authority to give out permits for the purpose of waste disposal or waste assimilation.

Waters of the State (WSC) 401 Water Quality Certification

The RWQCB regulates activities pursuant to Section 401(a)(1) of the CWA. Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit including a Section 404 permit. The RWQCB' s delegated authority over Section 401 requires a Water Quality Certification consistent with the USACE of Engineers definition of waters of the US.

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State was adopted in April 2020 and put into effect statewide on May 28, 2020 (State Water Resources Control Board [SWRCB] 2020a). The Water Boards define wetlands as follows:

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

The Water Code defines Waters of the State of California (WSC) broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." In the 2020 state wetland definition, the State did not define non-wetland WSC, rather they are relying on regional characterizations of jurisdiction was delegated to the Regional Boards.

The following wetlands are WSC based on the 2020 Procedures:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state; and
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other WSC, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not WSC unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal;
        ii. Settling of sediment;
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters;
        v. Agricultural crop irrigation or stock watering;
        vi. Fire suppression;
        vii. Industrial processing or cooling;
        viii. Active surface mining – even if the site is managed for interim wetlands functions and values;
        ix. Log storage;
        x. Treatment, storage, or distribution of recycled water;
        xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
        xii. Fields flooded for rice growing.

All artificial wetlands that are less than 1 acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WSC.

State of California Fish and Game Code Section 1600

Fish and Game Code Section 1602 outlines the Lake and Streambed Alteration Agreement (LSAA) permitting process, and states:

- An entity shall 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

Fish and Game Code Section 1602 requires any entity (defined as any person, State or local governmental agency, or public utility) to notify the CDFW before beginning any activity that will do one or more of the following:

- substantially divert or obstruct the natural flow of and river, stream, or lake, 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.

A permit, known as a Lake or Streambed Alteration Agreement, from CDFW is required to conduct any of the activities described above.

Methodology

This jurisdictional delineation is based on information compiled through a field survey of the project site and study area and a review of appropriate reference materials and literature regarding the resources of the region. The sources and literature referenced in this assessment are provided in the Bibliography below.

Literature Review

The assessment of the jurisdictional features began with a review of literature relating to the topography, soils, and hydrology that are known to occur on and in the vicinity of the project site, and include the following sources:

- United States Geologic Service (USGS) Romoland 7.5"quad topographic map,

- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soils Database (USDA 2023)
- National Hydrography Dataset (USGS 2023a)
- National Wetlands Inventory (USFWS 2023)
- National Watershed Boundary Dataset (USGS 2023b)
- Historic aerial photographs (historicaerials.com),
- Federal Emergency Management Agency (FEMA) flood GIS database (FEMA 2023)

Jurisdictional Delineation

A delineation of waters of the U.S. and "waters of the state" was conducted on September 11 and 12, 2023, throughout the project site and study area and included the area within the bed and banks of any jurisdictional features and any possible associated riparian areas. The limits of jurisdictional features were recorded in the field using ArcGIS Field Maps mobile application. A Geode GPS Receiver was used to ensure that the accuracy of the measurements was less than 12-inches of error.

Waters of the U.S.

Guidance documents released by the U.S. Army Corps of Engineers (USACE) following the US Supreme Court's 2023 Sackett Decision define waters of the U.S. as any of the following:

- Traditional Navigable Waters (TNWs),
- wetlands adjacent to TNWs,
- tributaries of TNWs (relatively permanent, standing or continuously flowing bodies of water)
- wetlands directly adjacent to tributaries of TNWs and with a continuous surface connection to TNWs or tributaries to TNWs.

Wetlands

The delineators used methods described in the USACE 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0) (USACE 2008) to determine the presence or absence of wetlands. During the site survey the following three wetland indicators were evaluated:

1. Dominance of hydrophytic wetland vegetation,
2. Presence of hydric soils, and

3. Periods of surface flooding or ponding water (visible surface water or saturated soils).

The USACE Arid West 2016 *Regional Wetland Plant List* was used to determine the wetland indicator status of plants that were observed in the Review Area, and changes in vegetation, soils, or hydrologic features are used to identify boundaries of wetlands, when present. Completed *Wetland Determination Data Form – Arid West Region* worksheets were completed for the project and are included in Appendix B.

Non-Wetland Waters

Non-wetland waters of the US are waters that lack wetland vegetation or hydric soils and have a clearly defined Ordinary High-Water Mark (OHWM), which indicates periods of surface flow. The OHWM was delineated using the methods in two USACE guidance documents: *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008) and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). A completed Datasheet for Identification of the OHWM is found in Appendix B.

Waters of the State

Santa Ana Regional Water Quality Control Board

South Environmental assumes all waters of the US are also considered waters of the state and are under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). The limits of wetlands, or the OHWM for non-wetland waters delineated in the project site will also be considered the limits of waters of the state under the jurisdiction of the RWQCB.

California Department of Fish and Wildlife (CDFW)

Waters of the state that are under the jurisdiction of the California Department of Fish and Wildlife (CDFW) are delineated at the top of the bank of a stream and extend to riparian habitats or vegetation associated with watercourses. Riparian vegetation is that which depends on surface or groundwater associated with the stream to exist and other vegetation that is either more dense or vigorous than the surrounding communities will also be considered under the jurisdiction of the CDFW.

Results

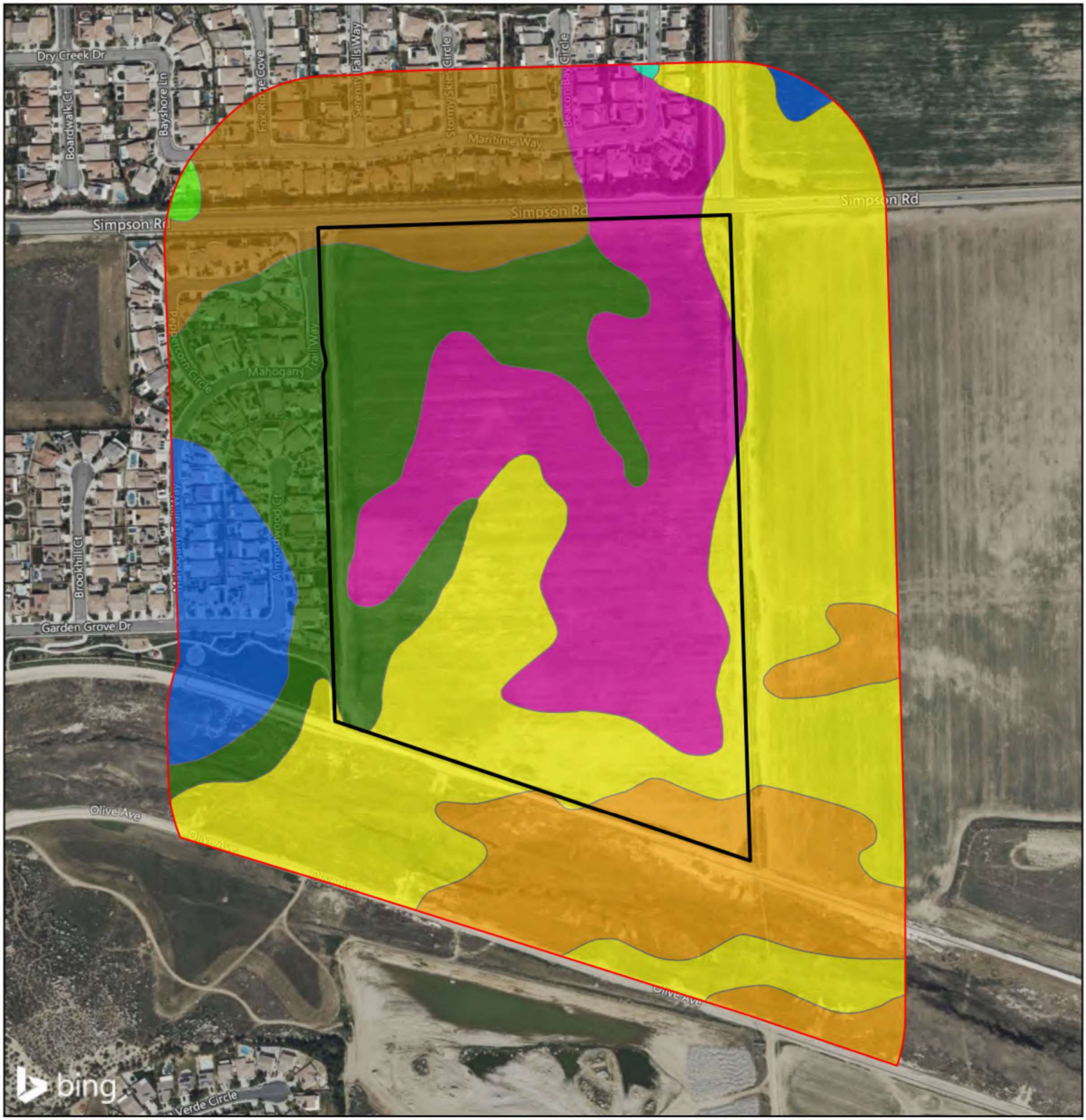
Topography and Climate

The project site is located east of the Santa Ana Mountains, east of Lake Elsinore, and northwest of Diamond Valley Lake. There is a riparian area to the south with a single-thread stream channel that winds from east to west and a low-lying wetland area adjacent to the channel. There are agricultural fields and a residential neighborhood to the north that are flat, although there is a small hill between Simpson Road and the residential community. A drainage channel running adjacent to Briggs Road from Simpson Road south to the stream channel separates two large agricultural tracts. The topography within the study area increases gradually from south to north and from east to west. The agricultural areas to the north are between 1440 to 1445 ft above mean sea level (amsl) whereas the stream channel and wetland area to the south are between 1430 to 1435 ft asl. The highest elevation for the project site is approximately 1465 ft amsl in the residential neighborhood at the northwest border. The lowest elevation for the project site is approximately 1430 ft amsl in the stream channel wetland area to the south. The climate in the region is hot and dry, with an average annual high temperature of 78.7° F and an average annual low temperature of 45.3° F. Average yearly rainfall is 10.4-inches, and the wettest months are November – April, and there is little precipitation between May-October.

Soils

Eight soils occur on the study area as shown in Figure 4:

- **Domino silt loam, saline-alkali** occurs on the eastern-central portions of the southern riparian area and north into agricultural land. This is an alluvial fan and depressions soil and is moderately well-drained.
- **Domino silt loam, strongly saline-alkali** occurs on the central and western portions of the southern riparian area and on portions of agricultural land to the north. This is an alluvial fan and depressions soil and is moderately well-drained.
- **Exeter sandy loam, 0 to 2 percent slopes** occurs on the residential and park area on the western edge of the study area. It is found on alluvial fans and is well drained.
- **Exeter sandy loam, deep, 0 to 2 percent slopes** occurs in the northern study area. It is found on alluvial fans and is well drained.
- **Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes** occurs on central areas of the western agricultural tract. It is found on alluvial fans and is well drained.



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 4. Soils

- Project Site
- Study Area

Soils

- Domino silt loam, saline-alkali
- Domino silt loam, strongly saline-alkali
- Exeter sandy loam, 0 to 2 percent slopes
- Exeter sandy loam, deep, 0 to 2 percent slopes
- Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes
- Greenfield sandy loam, 0 to 2 percent slopes
- Hanford coarse sandy loam, 0 to 2 percent slopes
- Ramona sandy loam, 0 to 5 percent slopes, severely eroded

0 260 520 Feet

Scale: 1:5,200

N

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- **Greenfield sandy loam, 0 to 2 percent slopes** occurs on the residential area on the northern extension of the site. It is found on alluvial fans and terraces and is well drained.
- **Hanford coarse sandy loam, 0 to 2 percent slopes** occurs in the western study area. It is found on alluvial fans and is well drained.
- **Ramona sandy loam, 0 to 5 percent slopes** occurs on the western edge of the southern riparian edge and on agricultural and residential areas to the north. This is severely eroded soil found on terraces and alluvial fans and is well drained.

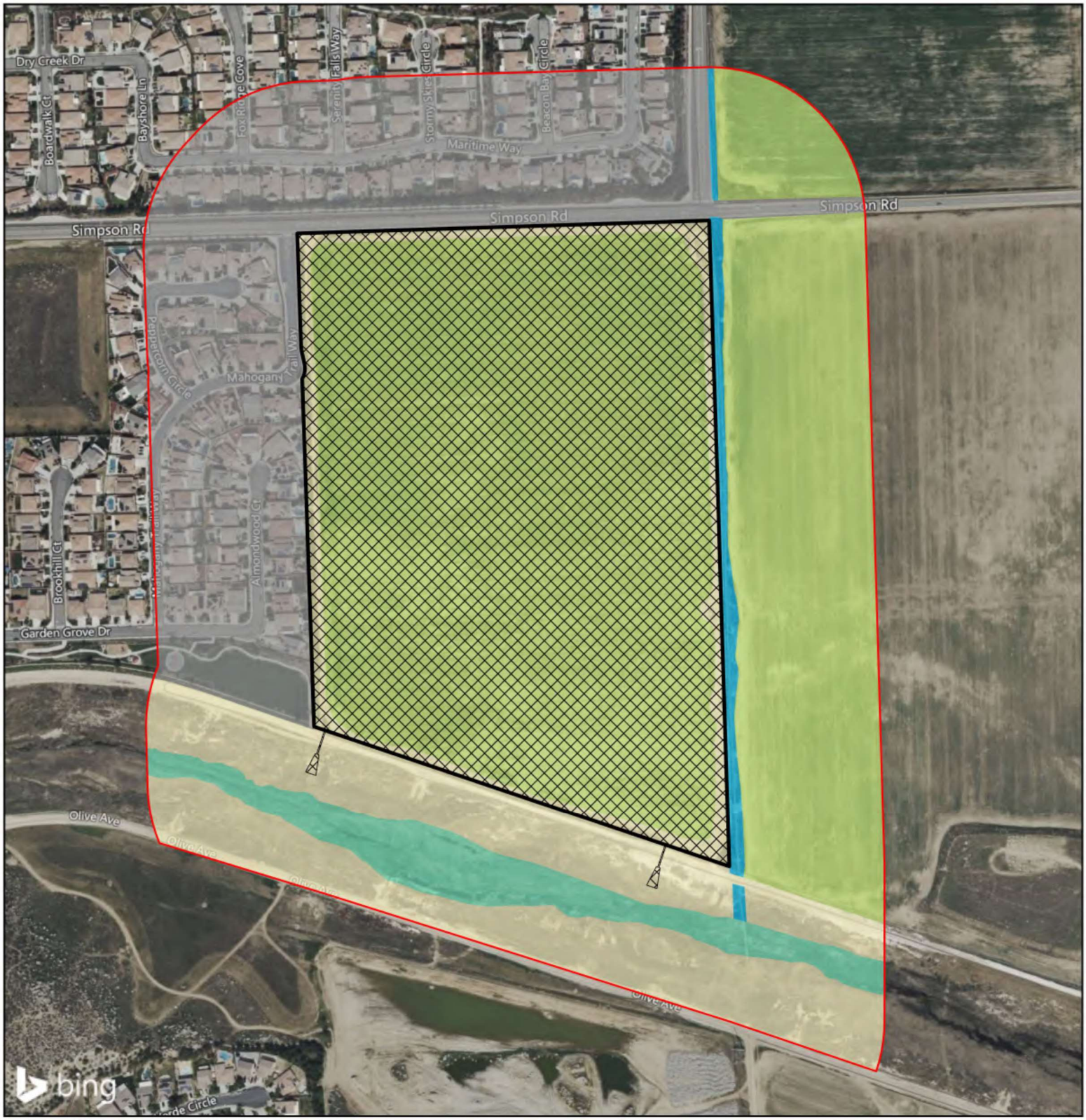
Plant Communities

There are two plant communities and two land cover types in the study area, and of those, four plant communities and two land cover types occur on the project site. Each is shown in Figure 5 below and acres of each is summarized in Table 1 below.

Table 1. Summary of Plant Communities on the Study Area and Project Site

Community or Cover Type	Acres on Study Area	Acres on Project Site	Acres Permanently Impacted by Project	Acres Temporarily Impacted by Project
Riparian	6.50	0	0	0
Ruderal/Bare	25.95	4.97	0.09	0
Irrigated Cropland	77.49	50.64	50.64	0
Developed	37.72	0	0	0
Drainage Ditch	2.18	0		0
Total	**149.84**	**55.61**	**55.73**	**0**

- **Riparian (Cattail Marshes and Arroyo Willow Thickets** occurs on 6.50-acres of the study area within Salt Creek Channel, and is outside of the project site. At the canopy level one species was observed, tamarisk (*Tamarix ramosissima*). The community was mostly dominated by patches of narrow-leaved cattail (*Typha angustifolia*) and arroyo willow (*Salix lasiolepis*). At the ground level were several non-native grasses (*Bromus* spp.) and an occasional native species, for example, flatspine bursage (*Ambrosia acanthicarpa*).



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 5. Plant Communities and Land Cover

0 260 520 Feet

Scale: 1:5,200

N

- Project Site
- Study Area
- Proposed Development Footprint

Plant Communities

- Developed
- Drainage Ditch
- Irrigated Cropland
- Riparian
- Ruderal/Bare

SOUTH ENVIRONMENTAL

- **Ruderal/Bare** is a disturbed area of ruderal plants and could be considered an association of bare areas and salt grass and wall barley (*Distichlis spicata – Hordeum murinum* within the Salt Grass Herbaceous Alliance; CDFW 2023) that occurs on 25.95-acres of the study area and 4.97-acres of the project site on the upland areas immediately adjacent to the wetland. In association with salt grass and wall barley are several native and non-native species. Native species include alkali heliotrope (*Heliotropium curassavicum*) and western ragweed (*Ambrosia psilostachya*). Non-native species observed included Maltese star-thistle (*Centaurea melitensis*), compact brome (*Bromus madritensis*), sprawling saltbush (*Atriplex suberecta*), fivehorn smootherweed *(Bassia hyssopifolia*) stinknet (*Oncosiphon piluliferum*), and pitgland tarweed (*Holocarpha virgata*).

- **Irrigated Croplands** are found on 77.49-acres acres of the study area and on 50.64-acres of the project site. These areas are currently fallow and in the recent past had a dense carpet of non-native grasses including wall barley, red brome (*Bromus rubens*) and compact brome and an occasional forb (e.g., bur clover, *Medicago polymorpha*). During the site visit in 2023 the area had been tilled and there was a sparse presence of forbs and grasses including wall barley, southern Russian thistle (*Salsola australis*), pigweed (*Amaranthus albus*), common sunflower (*Helianthus annuus*), cheeseweed mallow (*Malva parviflora*), and alkali heliotrope.

- **Developed** areas are found on 37.72-acres of the study area and is not found on the project site. The developed areas consist of residential areas with single-family house complexes on the northwestern and northern portions of the study area. There are several streets in these areas including Mahogany Trail Way, Garden Grove Drive, and Almondwood Court to the northwest and Simpson Road and Maritime Road to the north. Adjacent to the south of Garden Grove Drive is the Mahogany Creek Park and its eastern portion is within the study area. Ornamental species in these area include non-native palms and pines; a variety of sub-canopy species including firestick plant, American agave, bougainvillea, and rosemary, among others.

- **Drainage Ditch** occurs outside the project site on 2.18-acres of the study area along the eastern border of the project site. The plants within the drainage are similar to those found on the irrigated croplands and include wall barley, pigweed, southern Russian thistle, and common sunflower.

Jurisdictional Features

The project site is located within the San Jacinto Valley watershed (18070202). As shown in Figure 6, there is drainage #1 just east of and off of the project site and Salt Creek, a wetland and streambed, in the southern portion of the project site. Table 2 below summarizes the acres of estimated jurisdictional features within the study area.

Table 2. Summary of Jurisdictional Features on the Study Area

Feature	Linear Feet	Non-Wetland Waters of the US/State (USACE/RWQCB) - acres	Wetland Waters of the US/State (USACE/RWQCB) - acres	CDFW Streambed - acres	CDFW Riparian - acres
Drainage #1	2,580	0.19	0	0.80	0
Salt Creek	2,525	0	12.28	25.35	0
Total	5,105	0.19	12.28	26.15	0

The results of this jurisdictional delineation are based on the best professional judgement of the qualified delineator, using the most up-to-date regulations, written policy, and guidance from regulatory agencies. However, all conclusions regarding potential jurisdiction in this report should be considered preliminary and at the final discretion of the regulatory agencies.

Drainage #1

Drainage #1 enters the study area with natural boundaries from the north and flows to the south. As it approaches the northern survey area, it enters a culvert under Simpson Road and continues to the south. Drainage #1 continues past the study area boundary before flowing into Salt Creek.

An OHWM Datasheet P01 was completed within the natural boundaries OHWM area for Drainage #1. The width of the OHWM near P01 is approximately 14feet. Drainage #1 has a top-of-bank (TOB) that was equivalent to the OHWM bounds to both its west and east. Near P01, the OHWM is evident due to a change in vegetation cover, a break in bank slope, and the presence of water. During the survey, the OHWM/TOB was filled with water. This water was determined to be perennial; therefore drainage #1 was determined to be an intermittent stream. The active floodplain was indicated by the presence of bed and bank and surface relief. The active floodplain is limited to the TOB and is controlled by surface relief.

Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 6. Jurisdictional Delineation

0 250 500 Feet

Scale: 1:5,000

N

- Project Site
- Study Area
- Culvert
- Photo Point
- OHWM Form
- Wetland Dataform
- Upland Dataform
- Non-Wetland Waters of the US and State
- Wetland Waters of the US and State (USACE and RWQCB)
- CDFW Streambed and Vegetated Streambed Jurisdiction

SOUTH ENVIRONMENTAL

A Wetland Determination Form was not taken for drainage #1 due to a lack of hydrophytic plants; therefore, drainage #1 was determined to be a non-wetland.

A total of 2,580-linear feet (0.19-acres) of drainage #1 is in the study area. Drainage #1 does not have riparian cover. None of drainage #1 is on the project site.

Drainage #1 has a connection to several water bodies. It first connects upstream to Salt Creek. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to the San Jacinto River. The San Jacinto River connects downstream to Lake Elsinore. Lake Elsinore is considered a traditional navigable water (TNW) by the USACE. Due to its connection to a TNW and being an intermittent stream, drainage #1 in the study area is likely considered a non-wetland water of the U.S./State under the jurisdiction of USACE, RWQCB, and CDFW. USACE, RWQCB, and CDFW jurisdictions are within the OHWM/TOB boundaries.

Salt Creek

Salt Creek is a relatively large water system with a stream channel and wetland. The stream channel is single-thread and meanders moderately as it flows east to west. The channel is shallow (1-4 ft) and varies in width between 6 to 15-ft. During the site visit in September 2023, water was present along the entire channel. Signs of recent water flow were evident in a wide swath (0 to 80-ft) from the channel which was probably a wider flow range than normal given the wet spring in the area.

Wetland Determination Form (Wetland-1) was completed at a point within 20-ft of the stream channel where three primary hydrology indicators were present: drift deposits, surface soil cracks, and salt crust. Wetland hydrology was present. The soil pit for Wetland-1 had a color of 10 YR 4/4 from 0-6 inches below ground surface (bgs) and a color of 10 GY 8/1 from 6-20 inches bgs. The gleyed soil was classified as a Loamy Gleyed Matrix. Hydric soil was present for Wetland-1. Three species were observed at the herb stratum for the Wetland-1 point: salt grass (*Distichlis spicata*; FAC), broadleaved pepperweed (*Lepidium latifolium*, FAC), and flatspine bursage (*Ambrosia acanthicarpa*, UPL). The vegetation dominance test passed at 100%, but the prevalence index failed at 3.24. Because the dominance test passed, hydrophytic vegetation was present. The site met the three requirements for wetland status of wetland hydrology, soil, and vegetation and was determined to be wetland.

Upland Determination Form (Upland-1) was completed in an area to the southeast of the area for Wetland-1. The area was approximately 100-ft from the stream channel and upland and there were no primary or secondary indicators of hydrology. Wetland hydrology was not present. The soil pit for Upland-1 had a color of 10 YR 4/4 from 0 – 6 inches bgs and a color of 10 YR 6/3 from

6-20 inches bgs. Hydric soils was not present. Three species were observed at the herb stratum for the Upland-1 point: pit-gland tarweed (*Holocarpha virgata*, UPL), fivehorn smoothertweed (*Bassia hyssopifolia*), FACU), and stinknet (*Oncosiphon piluliferum*, FACU). The vegetation dominance test failed at 0% and the prevalence index failed at 4.2 and therefore no hydrophytic vegetation was present. Upland-1 was determined to be non-wetland.

A total of 2,525-linear feet (25.35-acres) of Salt Creek is in the study area, including 12.28-acres with wetland jurisdiction and 25.35-acres of total CDFW jurisdiction. Salt Creek has an upstream and downstream connection to several water bodies. Salt Creek connects downstream to Canyon Lake. Canyon Lake connects downstream to the San Jacinto River. The San Jacinto River connects downstream to Lake Elsinore. Lake Elsinore is considered a TNW by the USACE. Due to its connection to a TNW, Salt Creek in the study area is likely considered a non-wetland water of the U.S./State under the jurisdiction of USACE, RWQCB, and CDFW. USACE, RWQCB are within the wetland boundaries, and CDFW jurisdictions are within the streambed and vegetated streambed boundaries.

Impacts Analysis

Permanent Impacts: As shown in Figure 7 and summarized in Table 4, the total permanent impacts from proposed developments anticipated from the project include 0.09-acres (70 linear feet) of CDFW jurisdiction within vegetated streambed areas of Salt Creek.

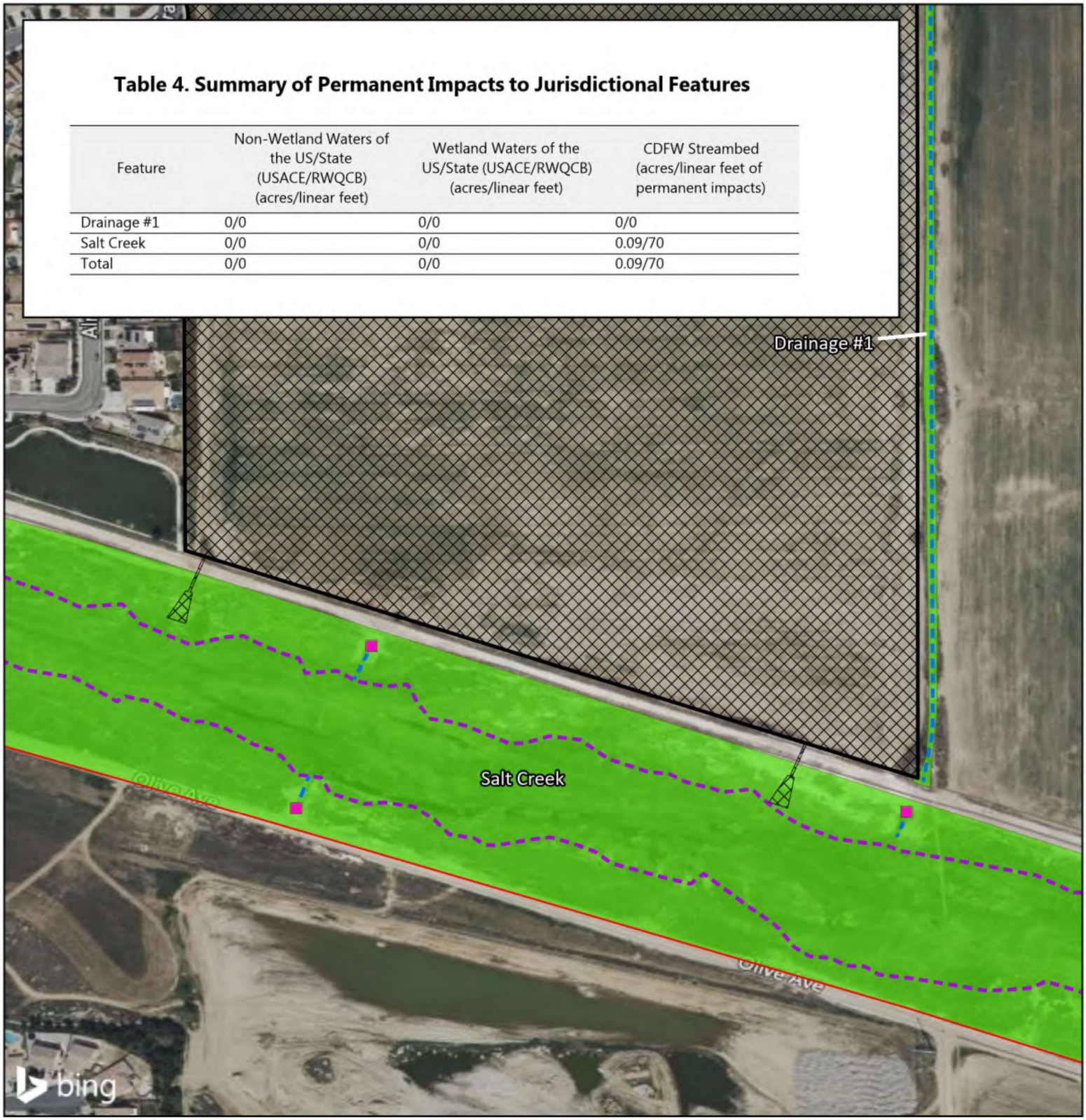
Temporary Impacts: There are no temporary impacts to jurisdictional features expected from the project.

Table 4. Summary of Permanent Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	CDFW Streambed (acres/linear feet of permanent impacts)
Drainage #1	0/0	0/0	0/0
Salt Creek	0/0	0/0	0.09/70
Total	0/0	0/0	0.09/70

Table 4. Summary of Permanent Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	Wetland Waters of the US/State (USACE/RWQCB) (acres/linear feet)	CDFW Streambed (acres/linear feet of permanent impacts)
Drainage #1	0/0	0/0	0/0
Salt Creek	0/0	0/0	0.09/70
Total	0/0	0/0	0.09/70



Source: BING Aerial Imagery 2023

Salt Creek Project

Figure 7. Jurisdictional Impacts

0 175 350 Feet

Scale: 1:3,500

N

- Culvert
- Non-Wetland Waters of the US and State
- Wetland Waters of the US and State (USACE and RWQCB)
- CDFW Streambed and Vegetated Streambed Jurisdiction
- Project Site
- Study Area
- Proposed Development Footprint

SOUTH ENVIRONMENTAL

Wetland Waters of the United States (USACE)

There are no wetlands within the proposed development on the project site and no impacts would occur to wetland waters of the U.S. The wetlands within Salt Creek are outside of the proposed development area. However, it is possible that the outfall structures will result in discharge of treated water into the wetlands.

Wetland Waters of the State (RWQCB)

There are no wetlands within the proposed development on the project site and no impacts would occur to wetland waters of the State. The wetlands within Salt Creek are outside of the proposed development area. However, it is possible that the outfall structures will result in discharge of treated water into the wetlands.

Non-Wetland Waters of the Unites States (USACE)

There are no non-wetlands within the proposed development on the project site and no impacts would occur to non-wetland waters of the US. The non-wetlands waters of the US within Drainage #1 are outside the project impact areas.

Non-Wetland Waters of the State (RWQCB)

There are no non-wetlands within the proposed development on the project site and no impacts would occur to non-wetland waters of the State. The non-wetlands waters of the state within Drainage #1 are outside the project impact areas.

CDFW Jurisdiction Streambed and Riparian

The total permanent impacts to CDFW streambed anticipated from the project include 0.09-acres (70 linear feet) due to the permanent development of two outfall structures that would fill these areas.

Recommendations and Conclusion

Salt Creek occurs on the project site and is considered wetland waters of the US and state under the jurisdiction of the USACE/RWQCB and protected streambed and vegetated streambed areas are under the jurisdiction of the CDFW. The proposed project will include permanent impacts to CDFW streambed within Salt Creek from the construction of two outfall structures and water

dispersion areas. The total permanent impacts from proposed developments anticipated from the project include 0.09-acres (70 linear feet) of CDFW jurisdiction within vegetated streambed areas of Salt Creek.

- A CDFW Notification of Lake or Streambed Alteration will be required for these impacts and an application should be submitted via the online portal.

The two outfall structures will also result in the release of treated water into CDFW streambed and also likely into the wetlands (USACE and RWQCB).

- A National Pollutant Discharge Elimination System (NPDES) permit is likely required to discharge into Salt Creek and should be obtained from the RWQCB prior to construction of the project.

Recommended project design features and avoidance/minimization measures to be included in the permits should include best management practices to avoid additional impacts to the streambed or water quality. These recommended measures should include at a minimum:

- Project activities within 50-ft of unaffected drainage features shall be planned when no surface water is present. No work should occur after rain events or when there is forecast of 50% chance of rain.
- The contractor shall clearly delineate the project limits and prohibit any disturbance outside these boundaries.
- Project-related vehicles and equipment shall not enter the unaffected streambed and shall be staged at least 50-feet outside of jurisdictional areas.
- During construction, heavy equipment and vehicles shall be operated in accordance with standard Best Management Practices (BMPs). All equipment used in the workspace shall be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored at least 50-ft from drainage features, as feasible, or equipment will utilize secondary containment.
- Construction parking and staging will occur in previously disturbed and developed areas that are greater than 50-feet from unaffected jurisdictional areas.

If you have any questions regarding the information in this report, please contact Matthew South by mobile phone: 303.818-3632 or by email: msouth@southenvironmental.com.

Sincerely,

Matthew R. South
Principal Biologist

List of Attachments

1. **Attachment A**. Photograph Exhibit
2. **Attachment B**. Arid West Ephemeral and Intermittent Streams OHWM Datasheets

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Attachment A

Photograph Exhibit

Photo 1. View of Wetland-1 soil pit, facing west.

Photo 2. View of Upland-1 soil pit, facing west.

Photo 3. View of Drainage #1, facing south.

Photo 4. View of outfall south of Salt Creek, facing southwest.

Photo 5. View of wetland area for Salt Creek, facing east.

Photo 6. View of outfall north of Salt Creek, facing northeast.

Photo 7. View of Drainage #1, facing north.

Photo 8. View of Drainage #1, facing south.

Photo 9. View of pipes under Simpson Road for Drainage #1, facing south.

Attachment B

Arid West Ephemeral and Intermittent Streams OHWM Datasheets

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Salt Creek Project
Project Number:
Stream: Drainage #1
Investigator(s): Scott Altmann

Date: 9/12/23 **Time:** 12:00
Town: Menifee **State:** CA
Photo begin file#: P01 **Photo end file#:**

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

Location Details: OHWM of Drainage #1

Projection: NAD 83 **Datum:** 1447
Coordinates: 33.7039700 -117.1364800

Potential anthropogenic influences on the channel system:
Trash / Debris from human activity.

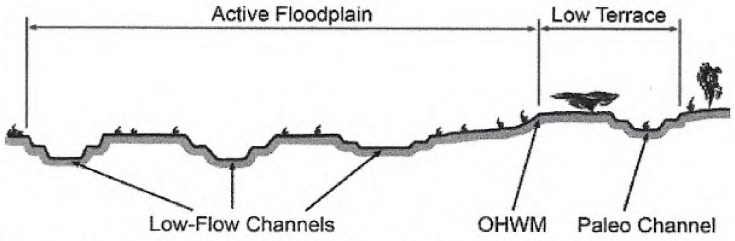
Brief site description:
Agricultural land / OHWM bank of intermittent stream

Checklist of resources (if available):

- [X] Aerial photography
  Dates: 9/23
- [X] Topographic maps
- [ ] Geologic maps
- [ ] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
  - [ ] History of recent effective discharges
  - [ ] Results of flood frequency analysis
  - [ ] Most recent shift-adjusted rating
  - [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

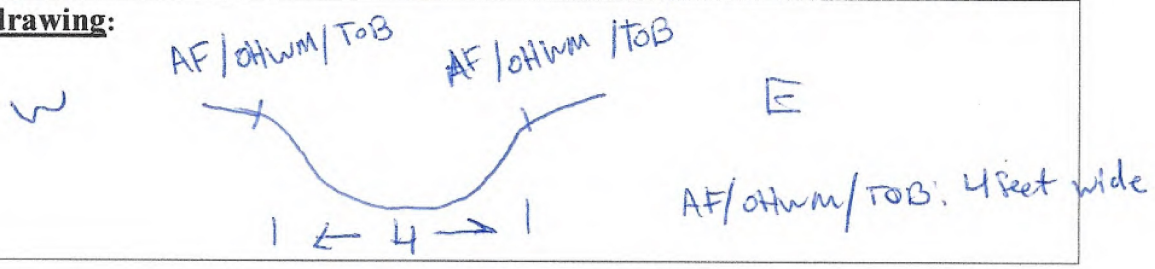


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [X] Mapping on aerial photograph
   - [X] Digitized on computer
   - [X] GPS
   - [ ] Other:

Project ID: Salt Creek Project **Cross section ID:** P01 **Date:** 9/12/23 **Time:** 12:00

Cross section drawing:



OHWM

GPS point: 33.70397700, -117.1364800

Indicators:

- [ ] Change in average sediment texture
- [ ] Change in vegetation species
- [x] Change in vegetation cover
- [x] Break in bank slope
- [x] Other: flowing water
- [ ] Other: _____

Comments:

Floodplain unit: [x] Low-Flow Channel [x] Active Floodplain [ ] Low Terrace

GPS point: Same

Characteristics of the floodplain unit:

Average sediment texture: fg-mg

Total veg cover: 95 % Tree: 0 % Shrub: 0 % Herb: 95 %

Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [x] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [ ] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [x] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

The active floodplain was controlled by surface relief and was equal to the ToB.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Salt Creek City/County: Menifee, Riverside Sampling Date: 9.11.2023
Applicant/Owner: State: CA Sampling Point: UPLAND - 1
Investigator(s): Scott Altmann Section, Township, Range: S25, T5S, R3W
Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): flat Slope (%): 0-5%
Subregion (LRR): LRR D Lat: 33.7012175 N Long: 117.1406033 W Datum: 2156
Soil Map Unit Name: Domino silt loam, saline alkali NWI classification: R4SBA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation X , Soil X , or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation X , Soil X , or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No X
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Presence of non-native species including invasivies. Lepidium latifolium is known for invading wetlands and can have a severe impact on plants, soils, and hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Holocarpha virgata*	15	Yes	UPL
2. *Bassia hyssopifolia*	30	Yes	FACU
3. *Oncosiphon piluliferum*	15	Yes	FACU
4.			
5.			
6.			
7.			
8.			
	60 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	15	x 5 =	75
Column Totals:	60 (A)		255 (B)

Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ____

Remarks:

SOIL

Sampling Point: UPLAND - 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1 - 6	10YR 4/4	100					Loamy/Clayey	
6 - 20	10YR 6/3	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Salt Creek | City/County: Menifee, Riverside | Sampling Date: 9.11.2023
Applicant/Owner: | State: CA | Sampling Point: Wetland - 1
Investigator(s): Scott Altmann | Section, Township, Range: S25, T5S, R3W
Landform (hillside, terrace, etc.): floodplain | Local relief (concave, convex, none): flat to concave | Slope (%):
Subregion (LRR): LRR D | Lat: 33.7014183 N | Long: 117.1406897W | Datum: 2156
Soil Map Unit Name: Ramona sandy loam, 0-5% slope | NWI classification: R4SBA
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes No X
Are Vegetation X, Soil X, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** **Yes** X **No**
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks:
Presence of non-native species including invasivies. Lepidium latifolium is known for invading wetlands and can have a severe impact on plants, soils, and hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft radius)			
1. *Distichlis spicata*	50	Yes	FAC
2. *Lepidium latifolium*	8	No	FAC
3. *Ambrosia acanthicarpa*	8	No	UPL
4.			
5.			
6.			
7.			
8.			
	66 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum | % Cover of Biotic Crust

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	58	x 3 =	174
FACU species	0	x 4 =	0
UPL species	8	x 5 =	40
Column Totals:	66 (A)		214 (B)

Prevalence Index = B/A = 3.24

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No**

Remarks:

SOIL

Sampling Point: Wetland - 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1 - 6	10YR 4/4	100					Sandy	Coarse to very fine sand
6 - 20	10GY 8/1	100					Loamy/Clayey	12% identifiable organic roots

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Water started to fill the pit at a depth of 20-in.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- X Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- X Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___	
Water Table Present?	Yes ___	No X	Depth (inches): ___	
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): ___	**Wetland Hydrology Present?** Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Suface water present 20-ft from sampling point. Water table present at depth of 20-in.

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C.3 - 2024 Breeding Season Burrowing Owl Survey Report

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FIRSTCARBONSOLUTIONS™

2024 Breeding Season Burrowing Owl Survey Report
Salt Creek Residential Project
City of Menifee, Riverside County, California

Project Applicant:
MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, CA 92606

Contact: Louisa Feletto, Forward Planning Manager

Lead Agency:
City of Menifee
29844 Haun Road
Menifee, California 92586
951.672.6777

Contact: Brandon Cleary, Associate Planner

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967 Kendall Drive
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Contact: Cecilia So, Senior Project Manager
Martin Rasnick, Associate Director, Biological Services

Date: May 2, 2024

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Table of Contents

List of Tables

List of Exhibits

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SECTION 1: INTRODUCTION

FirstCarbon Solutions (FCS) prepared this Breeding Season Burrowing Owl Survey Report in support of the proposed Salt Creek Residential Project (proposed project) in the City of Menifee, in Riverside County, California. This report summarizes the findings of protocol habitat assessment, burrow survey, and breeding season burrowing owl surveys conducted by FCS between March 29 and April 17, 2024. This report also includes summaries of previous surveys conducted at the site, a review of the Conditions of Approval for the proposed project regarding potential burrowing owl impacts and clarifying recommendations to those conditions.

Project Site Location

The approximately 55.61-acre project site is located in the City of Menifee (City), in Riverside County (County), California (Exhibit 1 and Exhibit 2). Menifee is surrounded by the City of Perris to the north, the community of Winchester to the east, the cities of Murrieta and Wildomar to the south, and the cities of Lake Elsinore and Canyon Lake to the west. Regional access to the project site is provided via Interstate 215 (I-215), which bisects the City north to south. Local access to the project site is provided via Simpson Road.

The project site is located at the southwest corner of Briggs Road and Simpson Road on one parcel which includes Assessor's Parcel Number (APN) 333-200-062. The off-site outfall locations are located on two parcels which include APNs 333-200-055 and 333-200-057. The site is located within the *Romoland, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

The project site is located within the plan area of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) but is not within or adjacent to a Criteria Cell. The nearest Criteria Cell Group (3887) is located approximately 4.7 miles northeast of the project site. The project site is partially within and adjacent to a Conservation Area, the Salt Creek Channel, a Public/Quasi-Public (PQP) Conserved Land located within the outfall areas of the project site and adjacent to the southern boundary of the project site. Other Conservation Areas in the project vicinity include Bureau of Land Management (BLM) Exchange Parcels (PQP Conserved Land) approximately 1.4 miles southeast of the project site and Diamond Valley Lake Reservoir (PQP Conserved Land) approximately 4.3 miles southeast of the project site. This project area is not located within any Linkage.

The project site is located in MSHCP Covered Species survey areas for burrowing owl and the following six MSHCP narrow endemic plant species: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). The project area is not located in Covered Species survey areas for amphibians, mammals, Delhi Sands flower-loving Fly, or criteria area plant species.

Project Description

MLC Holdings, Inc. (project applicant) proposes a residential subdivision on the 55.61-acre project site, located at the southwest corner of Briggs Road and Simpson Road in the City of Menifee. The proposed project would consist of up to 329 detached condo units (Exhibit 3). The total residential square footage including garages and porches would be approximately 839,300 square feet.

1.1.1 - Off-Site Improvements

The proposed project would also include improvements on Briggs Road south of Simpson Road, along the eastern property line, with the applicant constructing Briggs Road to its ultimate half-width section. The proposed extension would also include frontage improvements along the western edge of Briggs Road, including curb, gutter, sidewalk, and landscaping.

The proposed project would also include the construction of two 48-inch storm drain outfalls along the northern bank of Salt Creek Channel, which will discharge cleansed flows from the development water quality basins into the creek.

Previous Surveys

FCS Biologists conducted site visits to survey the existing biological conditions on May 18, 2023 and September 18, 2023 and determined that there was a moderate potential for burrowing owl to occur on the project site and that suitable burrowing and nesting habitat is present within fallowed and ruderal areas supporting California ground squirrel burrows. Focused burrowing owl surveys had not been conducted on site for this project prior to the 2024 breeding season.

Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 1
Regional Location Map

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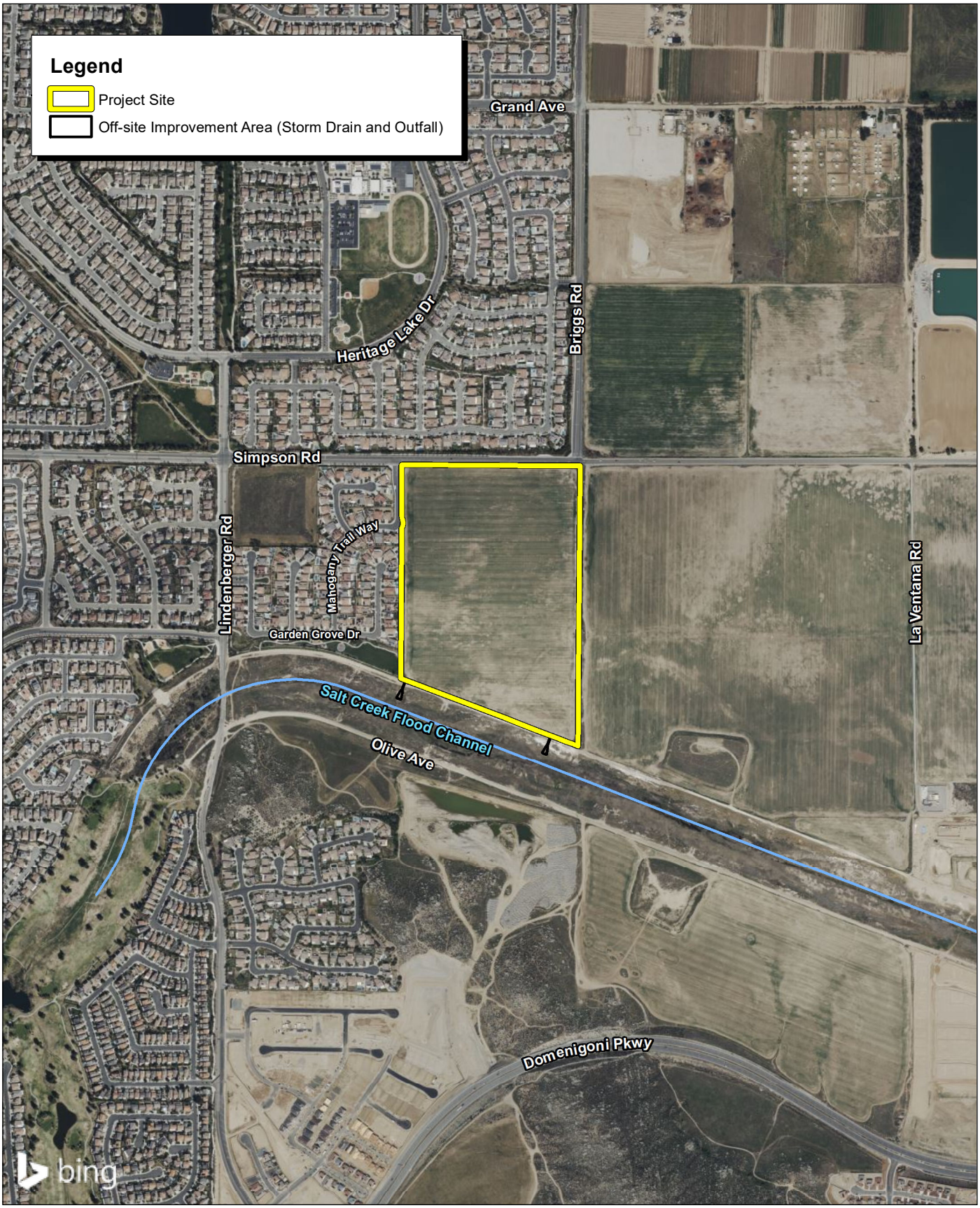

Source: Bing Aerial Imagery. County of Riverside.

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Exhibit 2
Local Vicinity Map, Aerial Base

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Source: Kimley-Horn, 10/31/2023.

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Exhibit 3
Site Plan

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SECTION 2: BACKGROUND

2.1 - Burrowing Owl Biology and Conservation Status

The burrowing owl (*Athene cunicularia*) is an owl in the family Strigidae. Burrowing owl are yearlong residents in suitable habitats throughout California. They can make localized movements, but normally have moderate to high site fidelity to general breeding areas, ground squirrel colonies, and even to particular nest burrows, depending on successful past breeding.[1] Non-migratory burrowing owls use and maintain burrows year-round.[2] Burrowing owl nest and roost burrows are largely excavated by California ground squirrel (*Otospermophilus beecheyi*), canids like coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), American badger (*Taxidea taxus*) and other small- and medium-sized mammal digs. They can also occupy man-made structures such as culverts, concrete and asphalt piles, standpipes, and clay irrigation pipes.

Burrowing owl overwhelmingly prefer grasslands and shrublands with prey largely consisting of insects and reptiles because they hunt by walking, running, hopping along the ground, flying from a perch, hovering, particularly over tall vegetation, and fly-catching in midair. During nesting, males catch prey with their feet and transfer it to the beak to feed the female or chicks in burrows.

The historic range for burrowing owl includes the Central Valley from Redding south to the Grapevine, east through the Mojave Desert and west to San José, the San Francisco Bay Area, the outer coastal foothills area that extend from Monterey south to San Diego, and the Sonoran Desert.[3,4] They are often associated with grasslands and other low-growing or sparse vegetation and are crepuscular (dawn and dusk) feeders, although they can be seen at any time.

Formerly common in Central and Southern California coastal habitats, smaller interior valleys, and in the Central Valley, urbanization and agriculture have resulted in reductions in burrowing owl distribution.[5,6]

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1 Bates, C. 2006. Burrowing Owl (*Athene cunicularia*). in The Draft Desert Bird Conservation Plan: a strategy for reversing the decline of desert-associated birds in California. California Partners in Flight. http://www.prbo.org/calpif/htmldocs/desert.html. Klute, D. S., L. W. Ayers, M. T. Green, W. H. Howe, S. L. Jones, J. A. Shaffer, S. R. Sheffield, and T. S. Zimmerman. 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. FWS/BTP-R6001-2003. US Department of Interior, Fish and Wildlife Service. Washington, DC.

2 Haug, E. A., B. A. Millsap, and M. S. Martell. 1993. Burrowing Owl (*Speotyto cunicularia*). The Birds of North America, No. 61. (A. Poole, and F. Gill, Eds.). The Academy of Natural Sciences and The American Ornithologists' Union, Philadelphia, PA and Washington, DC.

3 Grinnell, J., and A.H. Miller. 1944. The distribution of birds of California. Pacific Coast Avifauua 27:1-617

4 Gervais, J.A., D.K. Rosenberg, and L.A. Comrack. 2008. Burrowing Owl (*Athene cunicularia*). California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. Shuford, W. D., and Gardali, T., eds. 1:218-226.

5 Zarn, M. 1974. Burrowing Owl, report no. 11. Habitat management series for unique or endangered species. U. S. Department of the Interior, Bureau of Land Management, Denver, Colorado.

6 Gervais, J.A., D.K. Rosenberg, and L.A. Comrack. 2008. Burrowing Owl (*Athene cunicularia*). California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. Shuford, W. D., and Gardali, T., eds. 1:218-226.

In Southern California, remnant populations persist in the high desert, and in the rural areas of San Bernardino, Riverside, and San Diego counties. Agricultural areas of the Imperial Valley appear to support the highest numbers of this species.[7]

Burrowing owl populations are threatened by habitat loss, pesticide use, and ground squirrel eradication programs, which limit suitable burrowing habitat. This species is considered a Special Species of Concern by the California Department of Fish and Wildlife (CDFW) and a Bird of Conservation Concern by the United States Fish and Wildlife Service (USFWS). Nesting burrows are protected by the Migratory Bird Treaty Act (MBTA). Taking of individual burrowing owls and their nests is prohibited by sections 3503, 3503.5 and 3513 of California Fish and Game Code. Take is defined in Fish and Game Code Section 86 as to "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill." The burrowing owl is covered under the Western Riverside MSHCP, which requires implementing surveys and avoidance, minimization, and mitigation measures. The project site is also located in MSHCP Covered Species survey areas for burrowing owl.

[7] Gervais, J.A., D.K. Rosenberg, and L.A. Comrack. 2008. Burrowing Owl (*Athene cunicularia*). California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. Shuford, W.D., and Gardali, T., eds.

SECTION 3: ENVIRONMENTAL SETTING

The project site is situated on agricultural fields adjacent to Salt Creek Channel in the Menifee Valley. Menifee is within the San Jacinto Basin, a broad area of valleys and hills bounded by the San Jacinto Mountains and San Gorgonio Badlands on the northeast; the Box Springs Mountains on the north; and the Santa Ana Mountains on the southwest. The project site is surrounded by Simpson Road and residential development to the north; undeveloped lands to the east; Salt Creek to the south; and residential development to the west (Exhibit 2). The project site is vacant and undeveloped and has been used for wheat production. Undeveloped lands directly east of and adjacent to the project site have also been used for wheat production. There is a drainage feature outside of and along the eastern boundary of the project site between the wheat fields. This drainage feature will not be disturbed as part of the project. Vegetation immediately surrounding the wheat field on the project site contains ruderal, weedy species.

3.1 - Topography and Hydrology

The project site is generally flat; elevation ranges between approximately 1,440 feet (439 meters) above mean sea level on the south side of the project site to approximately 1,450 feet (442 meters) on the north side of the site.

A formal jurisdictional delineation of wetlands/waters was completed by South Environmental. The limits of the drainage adjacent to the site (Drainage No. 1) were estimated using binoculars and traversing public roads since the team did not have permission to access this off-site property. The drainage was determined to be an intermittent stream and likely considered a non-wetland water of the United States/State under the jurisdiction of United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and MSHCP. A total of 2,580-linear feet (0.19-acre) of the drainage is in the study area (project site plus 500-foot buffer). Salt Creek Channel is considered a wetland waters of the United States and State under the jurisdiction of the USACE/RWQCB and protected streambed and vegetated streambed areas are under the jurisdiction of the CDFW and MSHCP. A total of 2,525-linear feet (25.35-acres) of Salt Creek Channel is in the study area, including 12.28-acres with wetland jurisdiction and 25.35-acres of total MSHCP jurisdiction.

3.2 - Soils

The Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) mapped five soil types (Domino silt loam, saline-alkali; Domino silt loam, strongly saline-alkali; Exeter sandy loam, slightly saline-alkali, 0 to 5 percent slopes; Greenfield sandy loam, 0 to 2 percent slopes; and Ramona sandy loam, 0 to 5 percent slopes, severely eroded) on the project site. The Domino series soils are grayish brown, moderately alkaline, silt loam and consist of moderately deep, moderately well drained soils over lime-cemented hardpans. The Exeter series soils are brown and dark brown, neutral to slightly alkaline, loam and consist of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. The Greenfield series soils are pale brown, slightly acid, coarse sandy loam and consist of deep, well drained soils that formed in moderately coarse and

coarse textured alluvium derived from granitic and mixed rock sources. The Ramona series soils are brown, slightly to medium acid, sandy loam and fine sandy loam.

3.3 - Vegetation Communities and Land Cover

FCS Biologists recorded the following vegetation community types on-site during visits to the project site on May 18, 2023 and September 18, 2023, which were reaffirmed during multiple surveys of the site in 2024. A map of the vegetation communities is presented in Exhibit 4. Representative photographs of vegetation communities and on-site conditions are presented in Appendix A.

Project Site

Irrigated Cropland

The majority of the project site is used as an irrigated cropland for wheat (*Triticum spp.*) production (Exhibit 4).

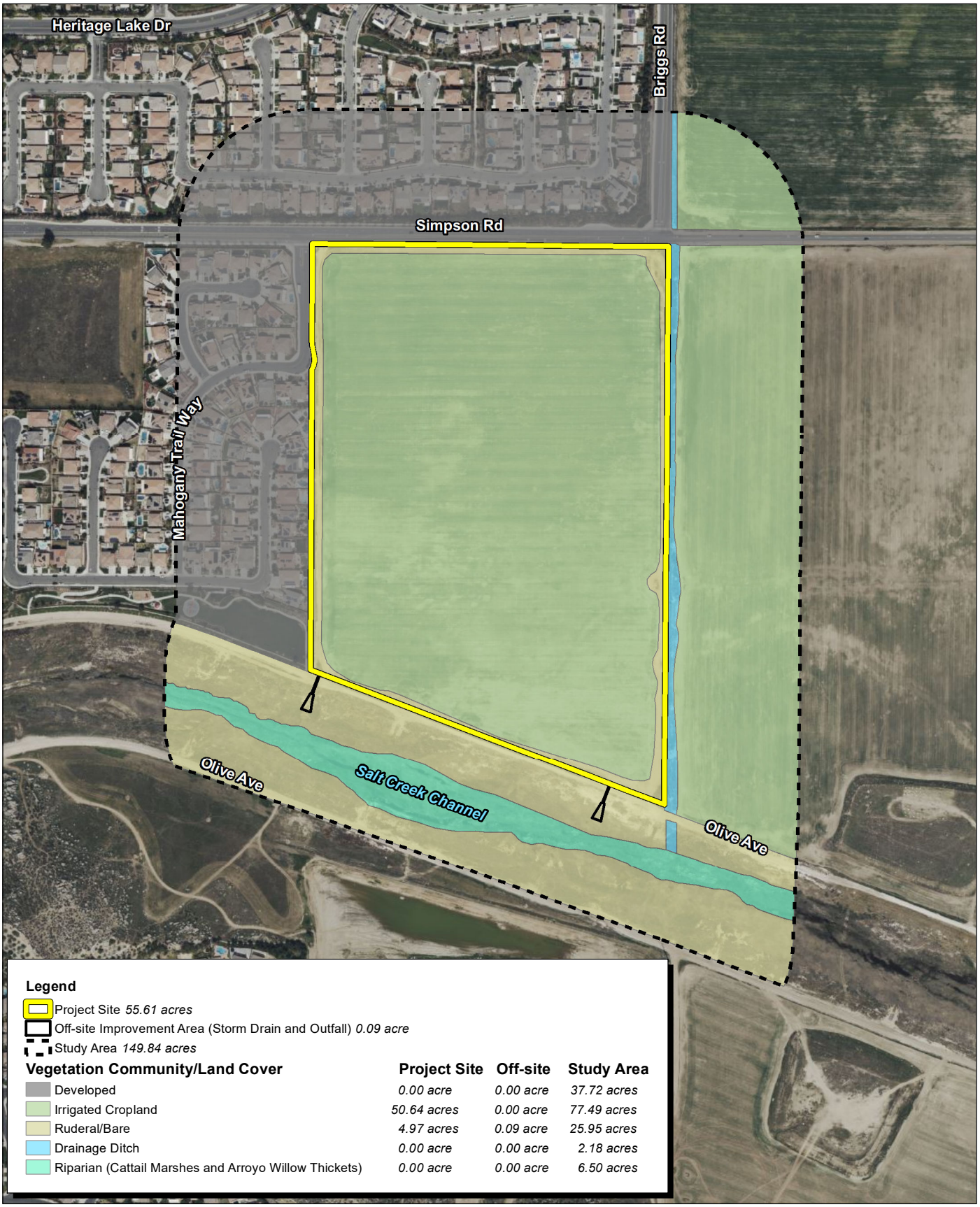
Ruderal/Bare

The outfall locations and areas bordering the wheat field were disturbed and supported ruderal, weedy species. Species observed in and adjacent to the drainage outside of the eastern border of the property included red brome (*Bromus madritensis ssp. rubens*), stinknet (*Oncosiphon pilulifer*), bull thistle (*Cirsium vulgare*), shortpod mustard (*Hirschfeldia incana*), curly dock (*Rumex crispus*), farmer's foxtail (*Hordeum murinum*), wild oat (*Avena fatua*), prickly sow thistle (*Sonchus asper*), Italian rye grass (*Festuca perennis*), annual yellow sweetclover (*Melilotus indicus*), ripgut brome (*Bromus diandrus*), perennial pepperweed (*Lepidium latifolium*), bulbous canary grass (*Phalaris aquatica*), rabbitsfoot grass (*Polypogon monspeliensis*), swamp mahogany eucalyptus (*Eucalyptus robusta*), cheeseweed (*Malva parviflora*), blue elderberry (*Sambucus mexicana*), summer cypress (*Kochia scoparia*), malta thistle (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), common sunflower (*Helianthus annuus*), rescuegrass (*Bromus catharticus*), and Canada horseweed (*Erigeron canadensis*). Species observed along the southern border of the project site included red brome, stinknet, spreading alkali weed (*Cressa truxillensis*), common sow thistle (*Sonchus oleraceus*), red sandspurry (*Spergularia rubra*), and salt heliotrope (*Heliotropium curassavicum*). Species observed along the western and northern boundaries of the project site included red brome, stinknet, shortpod mustard, farmer's foxtail, wild oat, annual yellow sweetclover, cheeseweed, prickly lettuce, and Canada horseweed.

500-foot Buffer of Project Site

Riparian/Riverine Areas

The community within Salt Creek Channel is mostly dominated by dense cover of perennial pepperweed and salt grass (*Distichlis spicata*). At the canopy level, tamarisk (*Tamarix ramosissima*) is also present. The Salt Creek Channel also supports stands of cattail marshes (MCV: *Typha* [*angustifolia*, *domingensis*, *latifolia*] Herbaceous Alliance). This vegetation community is dominated by a cattail species (*Typha* sp.) that is interspersed with weedy, ruderal vegetation and arroyo willow thickets. The Salt Creek Channel is within 500 feet of the project site and supports small, scattered, and sparse stands of arroyo willow thickets (MCV: *Salix lasiolepis* Shrubland Alliance).



Vegetation Community/Land Cover	Project Site	Off-site	Study Area
Developed	0.00 acre	0.00 acre	37.72 acres
Irrigated Cropland	50.64 acres	0.00 acre	77.49 acres
Ruderal/Bare	4.97 acres	0.09 acre	25.95 acres
Drainage Ditch	0.00 acre	0.00 acre	2.18 acres
Riparian (Cattail Marshes and Arroyo Willow Thickets)	0.00 acre	0.00 acre	6.50 acres

Source: Bing Aerial Imagery. Kimley-Horn Engineers, 07/2023. Riverside County Fire and Flood Control.

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Exhibit 4
Vegetation Community/ Land Cover Map

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This vegetation community, in which arroyo willows are dominant or co-dominant in the shrub canopy, is found along stream banks and benches, slope seeps, and stringers along drainages. Other species commonly found in this community include coyote brush, mule fat, western sycamore, Fremont cottonwood (*Populus fremontii*), and blue elderberry. The arroyo thickets in Salt Creek support small stands of willow species (*Salix* spp.) and cattail (*Typha* sp.).

Ruderal/Bare

Portions of the 500-foot buffer around the project site exhibited surface disturbances that were bare or supported ruderal, weedy vegetation (Exhibit 4). Ruderal areas were observed on the floodplain adjacent to Salt Creek in the upland areas to the south of the project site and in the drainage ditch east of the project site. Bare areas included dirt roads along the southern and western borders of the project site. Ruderal areas associated with these features are dominated by salt grass and wall barley (*Hordeum murinum*). They also supported weedy species, including red brome, stinknet, bull thistle, shortpod mustard, farmer's foxtail, wild oat, prickly sow thistle, common sow thistle, annual yellow sweetclover, ripgut brome, cheeseweed, summer cypress, malta thistle, spreading alkali weed, red sandspurry, salt heliotrope, prickly lettuce, common sunflower, rescuegrass, Canada horseweed, Sahara mustard, red stem filaree, bristly fiddleneck, white horehound (*Marrubium vulgare*), panic veltdgrass, jimsonweed (*Datura stramonium*), Mediterranean grass (*Schismus barbatus*), burr medic (*Medicago polymorpha*), tumbleweed (*Kali tragus*), and London rockets (*Sisymbrium irio*).

Developed

Developed lands are located within 500 feet of the project site, primarily residential developments to the west and north of the project site (Exhibit 4). Developed areas are characterized by urbanization that includes a combination of a developed and hardscaped features, landscaped and manicured vegetation, and disturbed areas with bare soil surfaces supporting ruderal vegetation. Developed and hardscaped areas include buildings, paved roads, parking lots, and sidewalks. Manicured, landscaped areas typically feature street/shade trees, lawns, and shrubs with little or no exposed soil substrates. Irrigation and fertilization of landscaped areas allow for tropical and other non-native and ornamental species to flourish in urban areas. Trees are often grown in a spaced pattern with an open understory, and lawns are typically one species maintained at a continuous, uniform height. Shrubs are grown as spaced individuals or in tight rows that are hedged. Developed areas often include areas with bare soil surfaces and weedy vegetation primarily composed of non-native, annual plant species. Developed areas provide habitat to a low diversity of wildlife that are tolerant of human-modified environments. Landscaped areas associated with the developments within 500 feet of the project site included species such as Mexican fan palm (*Washingtonia robusta*), camphor tree (*Cinnamomum camphora*), guava (*Psidium guajava*), Queensland brush box (*Lophostemon confertus*), sweetgum (*Liquidambar styraciflua*), lemon-scented gum (*Corymbia citriodora*), carrotwood (*Cupaniopsis anacardioides*), bottlebrush (*Callistemon* spp.), crepe myrtle (*Lagerstroemia* sp.), bougainvillea (*Bougainvillea* sp.), hibiscus (*Hibiscus* sp.), fountain grass (*Pennisetum setaceum*), society garlic (*Tulbaghia violacea*), and Bermuda grass (*Cynodon dactylon*), among others. Ruderal vegetation was observed in edges of the industrial developments, where species included a mixture of herbaceous vegetation, including red stem filaree, tumbleweed, white horehound, and Sahara mustard.

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SECTION 4: METHODS

4.1 - Desktop Review

4.1.1 - Database Searches

An FCS Biologist compiled information about the occurrence of burrowing owls previously recorded in the project vicinity. FCS accessed the CDFW California Natural Diversity Database (CNDDB) and the USFWS Information for Planning and Consultation (IPaC) online planning tool.[8,9] The CNDDB Biogeographic Information and Observation System (BIOS 6) database was used to determine the distance between known recorded occurrences of burrowing owls and the project site.[10]

4.1.2 - Review of Aerial Photographs

An FCS Biologist reviewed aerial photographs to assess existing conditions in the project vicinity and the potential for burrowing owl habitat. FCS Biologists accessed Google Earth Aerial photographs to provide a perspective of the most current site conditions relative to on-site and off-site land use and vegetation communities in the vicinity of the project site.

4.2 - Field Surveys

4.2.1 - Burrow Survey

FCS Biologists conducted a survey for burrows within mapped burrowing owl habitat on the project site and within its 500-foot buffer. During the survey the Biologists walked parallel transects spaced at 10 meters and searched for existing burrows greater than 4 inches in diameter, including those excavated by California ground squirrels, coyotes, and other burrowing wildlife. Burrows suitable for burrowing owl occupancy were recorded in ArcGIS Field Maps. The FCS Biologists also recorded any sign of burrowing owls (e.g., pellets, whitewash, tracks) detected at the burrows.

4.2.2 - 2024 Breeding Season Burrowing Owl Surveys

Following the mapping of burrows, FCS Biologists conducted a series of breeding season burrowing owl surveys within suitable habitats on the project site and within its 500-foot buffer. The surveys were conducted by Biologists experienced with burrowing owl identification, per guidance provided in the CDFW (2012) Staff Report. The surveys were conducted during the burrowing owl breeding season (generally February 1 through August 31). The surveys were conducted at times and during conditions that would allow for optimal viewing of burrowing owls, including early morning and late afternoon and when weather conditions were suitable for burrowing owl activity. The Biologists targeted the burrows during the surveys, generally walking from one burrow or burrow complex to the next. The Biologists also walked transects through suitable habitat on the project site spaced at 30 meters. Because of limitations of accessing adjacent private lands, the Biologists scanned habitats

[8] United States Fish and Wildlife Service (USFWS). 2024. Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/. Accessed April 4, 2024.
[9] California Department of Fish and Wildlife (CDFW). 2024. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed April 4, 2024.
[10] California Department of Fish and Wildlife (CDFW). 2024. Biogeographic Information and Observation System (BIOS 6). Website: https://map.dfg.ca.gov/bios/. Accessed April 4, 2024.

in the 500-foot buffer of the project site with binoculars. During the surveys, the Biologists walked slowly and used binoculars to augment the search area, searching for burrowing owls that could be flushed as the Biologists approached. The Biologists also noted the condition of the burrows and recorded any sign of burrowing owl. All birds observed or detected by vocalization were recorded during the surveys.

SECTION 5: RESULTS

5.1 - Desktop Review

According to the CNDDB, there are 48 recent occurrences of burrowing owls within 5 miles of the project site and 26 recent occurrences between 5 and 10 miles from the project site (Exhibit 5).[11,12] The USFWS IPaC report did not identify burrowing owl as an endangered species or migratory bird of concern in the project vicinity. A review of aerial photos determined that lands that could support appropriate conditions for burrowing owl occurrence are located to the south and east of the project site. Lands to the east are separated from the project site by a drainage and support similar natural vegetation communities. Lands to the south of the project site are contiguous with the project and support Riverine habitat around Salt Creek.

5.2 - Field Surveys

FCS Staff Biologist Kyle Killian conducted the burrow surveys and a focused owl survey on March 29, 2024. Mr. Killian performed additional burrowing owl searches on April 12, 16, and 17, 2024. (Table 1). A list of avian species observed during the burrowing owl surveys is presented in Appendix B.

Table 1: 2024 Breeding Season Burrowing Owl Survey Dates, Surveyors, and Survey Conditions

Date	Survey Type	Surveyor(s)	Time	Weather Conditions
March 29, 2024	Burrow survey	K. Killian	850–1145	50–56°F, winds 0-2 mph, cloud cover 60-85%
April 12, 2024	Burrowing owl survey	K. Killian	830–1100	53–58°F, winds 1-5 mph, cloud cover 90-100%
April 16, 2024	Burrowing owl survey	K. Killian	830–1040	56–68°F, winds 0-1 mph, cloud cover 0%
April 17, 2024	Burrowing owl survey	K. Killian	740–945	53–65°F, winds 0 mph, cloud cover 0%
Notes: °F = degrees Fahrenheit				

5.2.1 - Habitat Assessment

Burrowing owl habitat had previously been mapped on the project site including the adjacent 500-foot buffer on May 18, 2023, and September 18, 2023. During this effort, FCS Senior Biologist

[11] California Department of Fish and Wildlife (CDFW). 2024. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed April 4, 2024.

[12] California Department of Fish and Wildlife (CDFW). 2024. Biogeographic Information and Observation System (BIOS 6). Website: https://map.dfg.ca.gov/bios/. Accessed April 4, 2024.

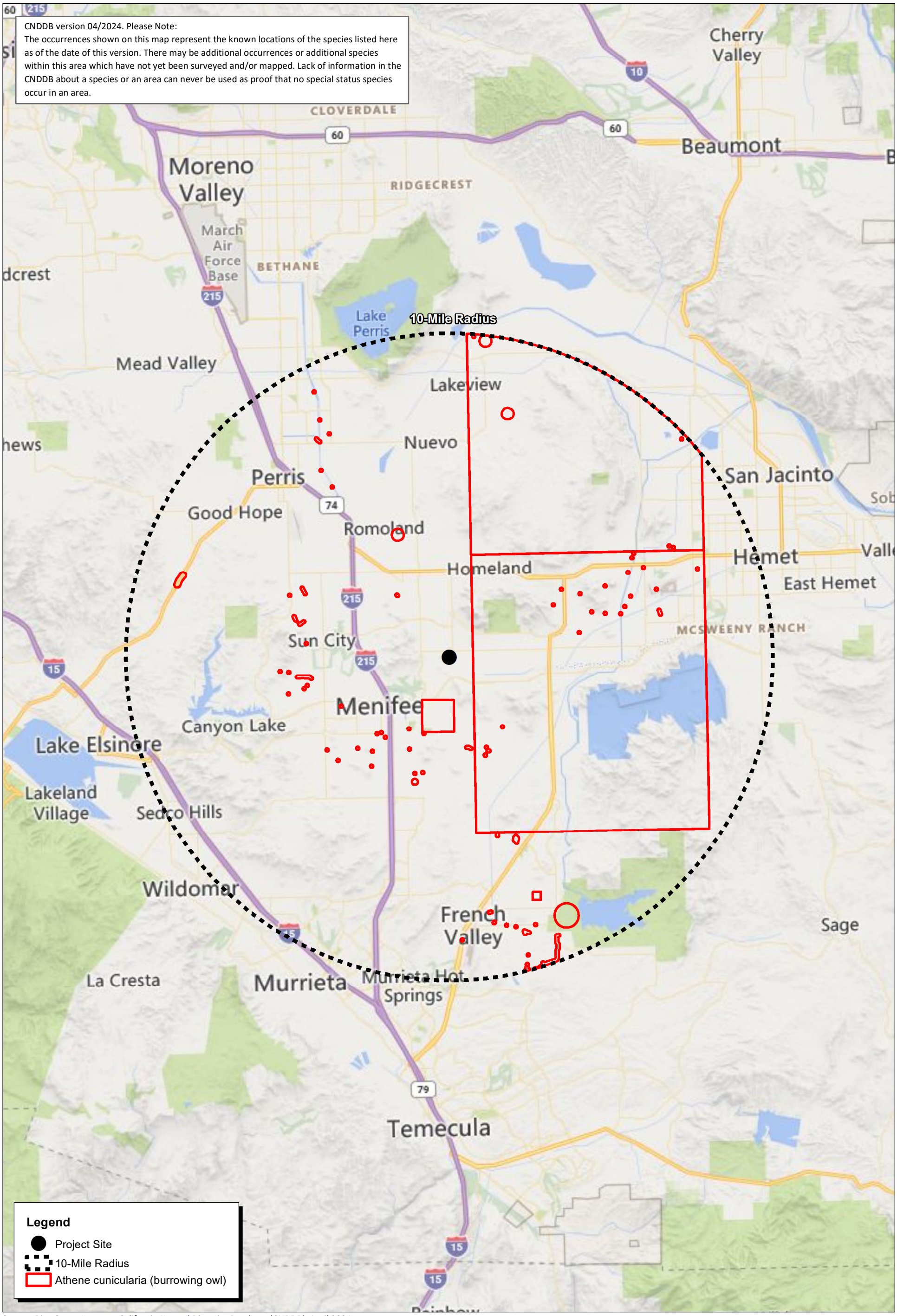
Michael W. Tuma, PhD, mapped burrowing owl habitat over the entire project site and areas to the east and south within 500 feet of the site.

5.2.2 - Burrow Survey

Mr. Killian completed burrow surveys of the project site and its 500-foot buffer on March 29, 2024. A total of 28 suitable burrows was recorded on and immediately adjacent to the project site (Exhibit 6). Additional burrows suitable for occupancy by burrowing owls were recorded on April 12, 2024 (N = 7) and April 16, 2024 (N = 2). Most of the burrows appeared to be California ground squirrel or valley pocket gopher burrows. Other burrows were observed but were either too small or partially occluded with dirt and therefore, not suitable for burrowing owl.

5.2.3 - 2024 Breeding Season Surveys

Mr. Killian performed breeding season surveys for burrowing owls on March 29, 2024, during and after the burrow surveys. Mr. Killian performed follow-up burrowing owl searches on April 12, 16, and 17, 2024. Weather conditions were suitable for observing owls during each visit. Small burrows of less than 4 inches in diameter were observed on-site, which were determined to be unsuitable for burrowing owls. Some potential burrows of sufficient size for burrowing owl were observed on site but were partially occluded with dirt. For all other suitable burrows, no burrowing owl or sign were observed (Exhibit 6).



Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), April 2024.

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Exhibit 5
Previously Recorded Occurrences of Burrowing Owl in the Project Vicinity

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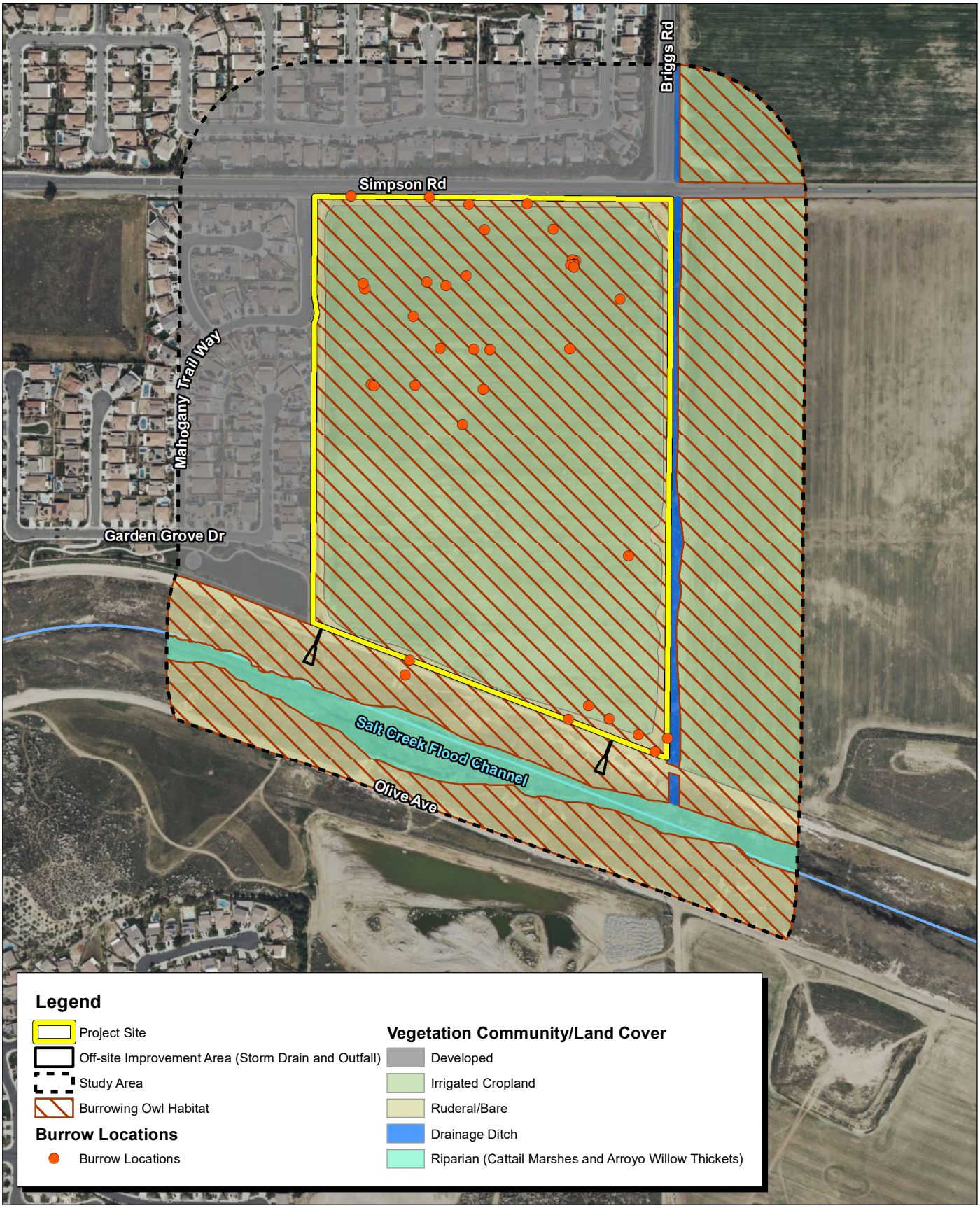

Source: Bing Aerial Imagery. County of Riverside.

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Exhibit 6
Burrowing Owl Habitat, Burrows, and Burrowing Owl Observations Map for Breeding Season Survey, 2024

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SECTION 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 - Burrowing Owl Occupancy of the Project Site

The project site supports suitable foraging, burrowing, and nesting habitat for burrowing owls. No burrowing owl or sign was observed on or adjacent to the site. However, suitable California ground squirrel burrows are present within the wheat fields and ruderal areas. Therefore, it may be possible that the site could be inhabited by burrowing owls in the future and thus, presence of this species cannot be ruled out.

6.2 - Recommendations to Avoid Project Impacts

Breeding season surveys have been completed and burrowing owls have been confirmed not to occupy the project site. The project applicant will be required to implement COA BIO-1a, Burrowing Owl Pre-construction Survey. The project applicant will also be required to repeat COA BIO-1a (breeding season and nonbreeding season surveys) during each season that lapses prior to project construction to provide a complete and recent characterization of use of the site by burrowing owls. To avoid potential project impacts on burrowing owls that may occupy the project site, the following Conditions of Approval are recommended:

COA BIO-1a Burrowing Owl Pre-construction Survey

The project applicant shall retain a qualified Biologist to perform a pre-construction burrowing owl survey in order to determine whether burrowing owl are present within 30 days prior to construction activities, according to the California Department of Fish and Wildlife (CDFW) guidelines. If construction is delayed or suspended for more than 30 days after the survey, the area shall be resurveyed. The pre-construction survey shall be completed on the project site and areas within 500 feet from the project boundary (where possible and appropriate based on habitat). All occupied burrows will be mapped on an aerial photo. Prior to the expected start of any project-related ground disturbance activities, or restart of activities, the City of Menifee shall provide a burrowing owl pre-construction survey report and mapping to the CDFW. If no burrowing owls are detected during the pre-construction survey, no further action is necessary. If burrowing owls are detected during the pre-construction survey, the applicant will implement COA BIO-1b below.

COA BIO-1b Agency Consultation

If the pre-construction burrowing owl surveys determine that burrowing owl occupies the project site, the project applicant shall consult with the California Department of Fish and Wildlife (CDFW) and the City to determine appropriate mitigation for the loss of burrowing owl habitat due to project implementation. The outcome of the consultation shall determine the need for on-site or off-site mitigation for burrowing owl, including habitat area mitigation ratios. The outcome

of the consultation shall be included in a Burrowing Owl Mitigation Plan that shall be prepared by a qualified Biologist retained by the project applicant.

COA BIO-1c Mitigation and Avoidance

If any of the surveys (breeding season, nonbreeding season, or pre-construction) are positive for burrowing owl, the project proponent shall retain a qualified Biologist to develop and implement a Burrowing Owl Mitigation Plan. The Burrowing Owl Mitigation Plan shall contain the following elements (as outlined in the California Department of Fish and Wildlife [CDFW] 2012 Staff Report on Burrowing Owl Mitigation protocol) at a minimum:

- Avoidance of burrowing owl during construction, including establishment of a 160-foot radius around occupied burrows during the nonbreeding season (September 1 through February 14) or a 300-foot radius around occupied burrows during the breeding season (February 15 through August 31), within which construction activities may not occur until a qualified Biologist has determined that (1) nonbreeding season owl have dispersed from the area; or (2) breeding season owl have fledged their juveniles from the occupied burrows and the juveniles are foraging independently and are capable of independent survival or have dispersed from the area.
- A plan for implementing a passive relocation program for nonbreeding owls, should it be needed. The passive relocation techniques should be consistent with CDFW guidelines, including installation of artificial burrows at an off-site location and use of one-way exclusion doors to ensure owls have left the burrow(s).

SECTION 7: CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this Breeding Season Burrowing Owl Survey Report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: May 2, 2024 Signed: 

Martin A. Rasnick
FirstCarbon Solutions
967 Kendall Drive
#A-537
San Bernardino, CA 92407

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Appendix A: Site Photographs

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Photograph 1: View of irrigated cropland and ruderal areas from the northwest corner of the project site, facing east along Simpson Road.

Photograph 2: View of irrigated cropland and drainage ditch from the northeast corner of the project site, facing south.

Photograph 3: View of irrigated cropland and ruderal area from the southeast corner of the project site, facing west.

Photograph 4: View of irrigated cropland along the border with residential development from the southwest corner of the project site, facing north.

Photograph 5: View of Salt Creek Channel near the proposed western outfall location from the southern border of the project site, facing south.

Photograph 6: View of Salt Creek Channel near the proposed eastern outfall location from the southern border of the project site, facing south.

Photograph 7: View of burrow located within a cluster in the northeastern portion of the wheat field on the project site.

Appendix B:
List of Avian Species Detected

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Table 1: Avian and Burrowing Mammal Species Observed

Common Name	*Scientific Name*	Native or Exotic?
Birds		
Common raven	*Corvus corax*	Native
Red-tailed hawk	*Buteo jamaicensis*	Native
House sparrow	*Passer domesticus*	Exotic
Anna's hummingbird	*Calypte anna*	Native
Northern mockingbird	*Mimus polyglottos*	Native
Red-winged blackbird	*Agelaius phoeniceus*	Native
House finch	*Haemorhous mexicanus*	Native
Canadian goose	*Branta canadensis*	Native
Song sparrow	*Melospiza melodia*	Native
Black phoebe	*Sayornis nigricans*	Native
Yellow-rumped warbler	*Setophaga coronata*	Native
Brewer's blackbird	*Euphagus cyanocephalus*	Native
Ash-throated flycatcher	*Myiarchus cinerascens*	Native
Western meadowlark	*Sturnella neglecta*	Native
Say's phoebe	*Sayornis saya*	Native
Rock pigeon	*Columba livia*	Exotic
Burrowing Mammals		
California ground squirrel	*Otospermophilus beecheyi*	Native
Valley pocket gopher (carcass)	*Thomomys bottae*	Native
Desert cottontail	*Sylvilagus audubonii*	Native

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