Initial Study Mitigated Negative Declaration

Markham Street Extension Project

County of Riverside, California

May 2024

Prepared for:
County of Riverside
Transportation Department
3525 14th Street
Riverside, CA 92501

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Contents

Tables

Figures

Acronyms

AB	Assembly Bill
ADA	American with Disabilities Act
AQMP	Air Quality Management Plan
ARDA	Aquatic Resources Delineation Area
BMP	Best Management Practice
BSA	Biological Study Area
BUOW	Burrowing Owl
CAGN	Coastal California Gnatcatcher
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
County	County of Riverside Transportation Department
CWA	Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EIC	Eastern Information Center
EO	Executive Order
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Act
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
GHG	Greenhouse Gas
HMMP	Habitat Mitigation and Monitoring Plan
IS	Initial Study
ISMND	Initial Study/Mitigated Negative Declaration
LBV	Least Bell's Vireo
LID	Low Impact Development
LMWAP	Lake Mathews/Woodcrest Area Plan
MLD	Most Likely Descendent

MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
ND	Negative Declaration
NPDES	National Pollutant Discharge Elimination System
OHP	Office of Historic Preservation
PCBs	Polychlorinated Biphenyls
PPV	Peak Particle Velocity
PRC	Public Resource Code
PM	Particulate matter
RCMC	Riverside County Municipal Code
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SAWA	Santa Ana Watershed Authority
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SLF	Sacred Lands File
SRA	State Responsible Area
SWFL	Southwestern Willow Flycatcher
SWPPP	Stormwater Pollution Prevention Plan
TCE	Temporary Construction Easement
TCRs	Tribal Cultural Resources
TCP	Traffic Control Plan
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Services
VMT	Vehicle Miles Travelled
WEAP	Worker Environmental Awareness Program
WMWD	Western Municipal Water District
WRCOG	Western Riverside Council of Governments
WRCMSHCP	Western Riverside County Multiple Species Habitat Conservation Plan

1 Introduction

The County of Riverside Transportation Department (County) is proposing roadway improvements to Markham Street between Roosevelt Street and Wood Road for approximately 1.3 miles to improve traffic circulation in the community of Woodcrest in Riverside County, California. The Project is subject to the requirements of the California Environmental Quality Act (CEQA), and the County is serving as the CEQA lead agency for the Project.

CEQA is a Statewide environmental law contained in Public Resources Code (PRC) §§ 21000-21177. It applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment. This Initial Study (IS) includes an evaluation of resource areas found in the CEQA Environmental Checklist (see Section 3) to provide the County with substantial evidence to use as the basis for future adoption of a Mitigated Negative Declaration (MND) based on the physical environmental effects resulting from implementation of the Project.

This ISMND is organized as follows:

Section 1. Introduction provides the purpose of this ISMND, its intended use, and the public review process.

Section 2. Project Setting and Description provides details of the Project location, background, description, and purpose. This section also identifies required permits, approvals, or agreements for the Project.

Section 3. Initial Study Checklist provides a summary of the environmental factors potentially affected by the Project and a significance determination. This section also includes an evaluation of the potential effects the Project may have on the environment and identifies potential avoidance, minimization, and/or mitigation measures that would reduce or minimize the Project's effects on the environment.

Section 4. References provides a catalog of in-text citations used in the document.

Section 5. Preparers list of federal, state, or local agency personnel, including consultants, who were primarily responsible for preparing this document.

Section 6. List of Technical Studies identifies all technical studies prepared for the Project.

Purpose

The objective of this ISMND is to inform County decisionmakers, representatives of other affected/responsible agencies, the public, and interested parties of the potential environmental consequences of the Project. Determining whether a project may have a significant effect plays a critical role in the CEQA process. If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, the agency shall prepare a draft Environmental Impact Report (EIR). The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.

In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.

As identified in CEQA Guidelines Section 15063(c), the purposes of an IS are to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration (ND).
2. Enable an applicant or Lead Agency to modify a project, or identify avoidance, minimization, or mitigation measures to reduce adverse impacts.
3. Assist in the preparation of an EIR, if one is required, by:
    a. Focusing the EIR on the effects determined to be significant,

b. Identifying the effects determined not to be significant,

c. Explaining the reasons for determining that potentially significant effects would not be significant, and

d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

4. Provide documentation of the factual basis for the finding in a ND that a project will not have a significant effect on the environment;

Intended Use of this Initial Study Mitigated Negative Declaration

This ISMND provides an evaluation of potential environmental impacts that may result from implementing the Project. The document provides technical and environmental analyses for support in determining the significance of environmental impacts demonstrating whether the Project would have no impact, a less than significant impact, or a less than significant impact with the implementation of mitigation measures. Below is a description of the evaluation of environmental impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
6. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.
7. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
8. The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and

    b. The mitigation measure identified, if any, to reduce the impact to less than significance.

The County used the substantial evidence provided in this document and the technical studies prepared for the Project, to evaluate whether or not there are any significant environmental effects associated with implementation of the Project. Based on these analyses, this IS supports adoption of an MND for the Project.

The following technical studies were prepared for this ISMND:

- Air Quality Report
- Biological Resources Technical Report
- Determination of Biologically Equivalent or Superior Preservation Report
- Phase I Cultural Resource Assessment
- Noise and Vibration Study Report
- Paleontological Resource Technical Report
- Phase I Environmental Site Assessment
- Traffic Impact Assessment Technical Memorandum
- Water Quality Technical Memorandum

Public Review of this Initial Study Mitigated Negative Declaration

Public participation in the environmental review process is an essential part of the CEQA process and can help to identify public concern or additional environmental factors that should be considered. To facilitate public involvement in the CEQA review of this Project the County has made available a copy of this ISMND at the following location:

D1-0078 Markham Street Extension — Riverside County Projects (rcprojects.org)

In addition, the technical studies prepared in support of the ISMND are also available for review on the Project website except for the cultural reports, which are confidential and not for public distribution.

A 30-day public circulation period will begin May 28, 2024 and end on June 27, 2024. Written comments relating to this ISMND should be addressed to:

County of Riverside Transportation Department

Attn: David Castro, Associate Transportation Planner

3525 14th Street, Riverside, California, 92501

Submit comments via email to dacastro@rivco.org no later than June 27, 204.

After the 30-day public circulation period, comments raised during the public review period will be considered and addressed prior to adoption of the ISMND by the County.

2 Project Setting and Description

1. **Project Title:**

   Markham Street Extension Project

2. **Lead Agency Name and Address:**

   County of Riverside Transportation Department, 3525 14th Street, Riverside, California, 92501

3. **Contact Person and Phone Number:**

   David Castro, Associate Transportation Planner (951) 955-9719

4. **Project Location:**

   The Project is located between the intersection of Markham Street and Roosevelt Street and the intersection of Markham Street and Wood Road. The Project area includes the maximum footprint of disturbance for proposed roadway and infrastructure improvements, temporary construction easements (TCEs), construction staging areas, and proposed permanent drainage easements. See Figures 1 and 2.

5. **Project Sponsor's Name and Address:**

   County of Riverside Transportation Department, 3525 14th Street, Riverside, California, 92501

6. **General Plan Designation:**

   The Project is located within the Lake Mathews/Woodcrest Area Plan. Markham Street is classified as a secondary highway per the County General Plan. Land uses within the Project area are designated Rural Community – Very Low Density Residential and Open Space - Conservation (County of Riverside 2023).

7. **Zoning:**

   The Project area is located within the Light Agriculture (A-1-5) and Residential Agriculture (R-A) zones (County of Riverside 2023).

8. **Project Description:**

   The design of the 1.3-mile roadway section for Markham Street between Roosevelt Street and Wood Road accommodates an ultimate secondary highway configuration per the County General Plan Circulation Element with two lanes in each direction; however, the proposed roadway improvements as part of the Project would only include one lane in each direction along the southern half of the ultimate roadway section. In the future, the County may elect to construct two additional lanes along the northern portion of the ultimate roadway section. Proposed roadway improvements would include two 12-foot-wide travel lanes (one in each direction), with a 5-foot-wide westbound and 6-foot-wide eastbound Class II bike lane. The northern edge of the proposed roadway section would have an 8-foot-wide unpaved shoulder, and the southern edge of the proposed roadway section would include curb and gutters, a 6-foot-wide sidewalk, and a 6-foot parkway.

   Traffic signal improvements would be required at the Markham Street and Wood Road intersection to accommodate the extended roadway and the addition of a dedicated eastbound left-turn lane, a dedicated eastbound through lane, and a shared-through and right-turn lane. The Markham Street and Roosevelt Street intersection would remain as a stop-controlled intersection. The four smaller intersections (Oran Drive, Birch Street, Cedar Street, and James Kenny Road) would require roadway modifications to develop curb returns and American with Disabilities Act (ADA)-compliant pedestrian accessible ramps to tie into the existing roadways, and the intersections would be stop controlled. Existing property driveways would be modified to connect to new roadway improvements. Drainage improvements would include storm drains along the roadway and the addition of culverts to direct storm-flow drainage across the roadway. Existing utilities that may require relocation or modifications to accommodate the roadway extension include water, gas, electrical, and telephone lines. In addition, traffic restriping west of Roosevelt Street would be needed to transition from the existing roadway to the new extended roadway.

Construction of the Project would require partial right of way (ROW) acquisition, TCEs, and permanent easements consisting of drainage easements and slope easements.

9. Surrounding Land Uses and Setting:

The Project area is located in a semi-rural portion of Riverside County. Adjacent properties along this roadway segment consist of vacant land, single-family homes, and public facilities including a sewer-lift station and water-pumping station.

10. Other Public Agencies Whose Approval is Required:

Agency	Permits, Licenses, Agreements, and Certifications
California Department of Fish and Wildlife	1602 Streambed Alteration Agreement
Regional Water Quality Control Board	Section 401 Water Quality Certification
State Water Resources Control Board	Construction General Permit and Stormwater Pollution Prevention Plan
United States Army Corps of Engineers	Section 404 Nationwide Permit

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources (TCRs), procedures regarding confidentiality, etc.?

On March 31, 2022, initial AB 52 consultation letters were sent to representatives from the six Native American tribes on the County's AB 52 consultation list. Letters were sent to the Pechanga Band of Luiseño Indians, Soboba Band of Luiseño Indians, Cahuilla Band of Indians, Pala Band of Mission Indians, Morongo Band of Mission Indians, San Manuel Band of Mission Indians. Two of the six tribes, Soboba Band of Luiseño Indians, and Pechanga Band of Luiseño Indians requested AB 52 consultation and on-site monitoring during construction. The Cahuilla Band of Indians did not request AB 52 consultation but did request on-site monitoring during construction. More details regarding consultation efforts to date can be found in Section of 3.18 Tribal Cultural Resources.

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Figure 1. Regional Vicinity

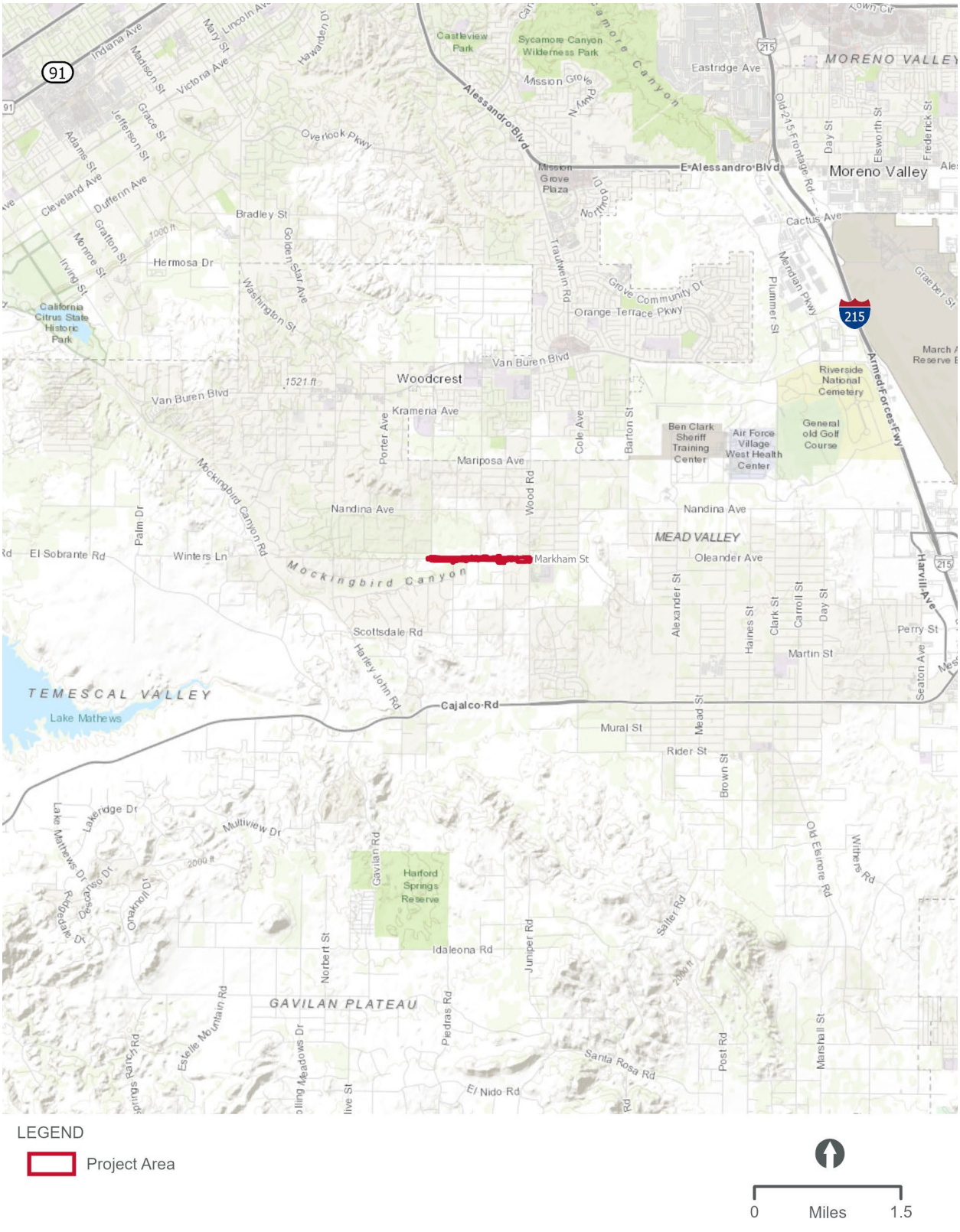

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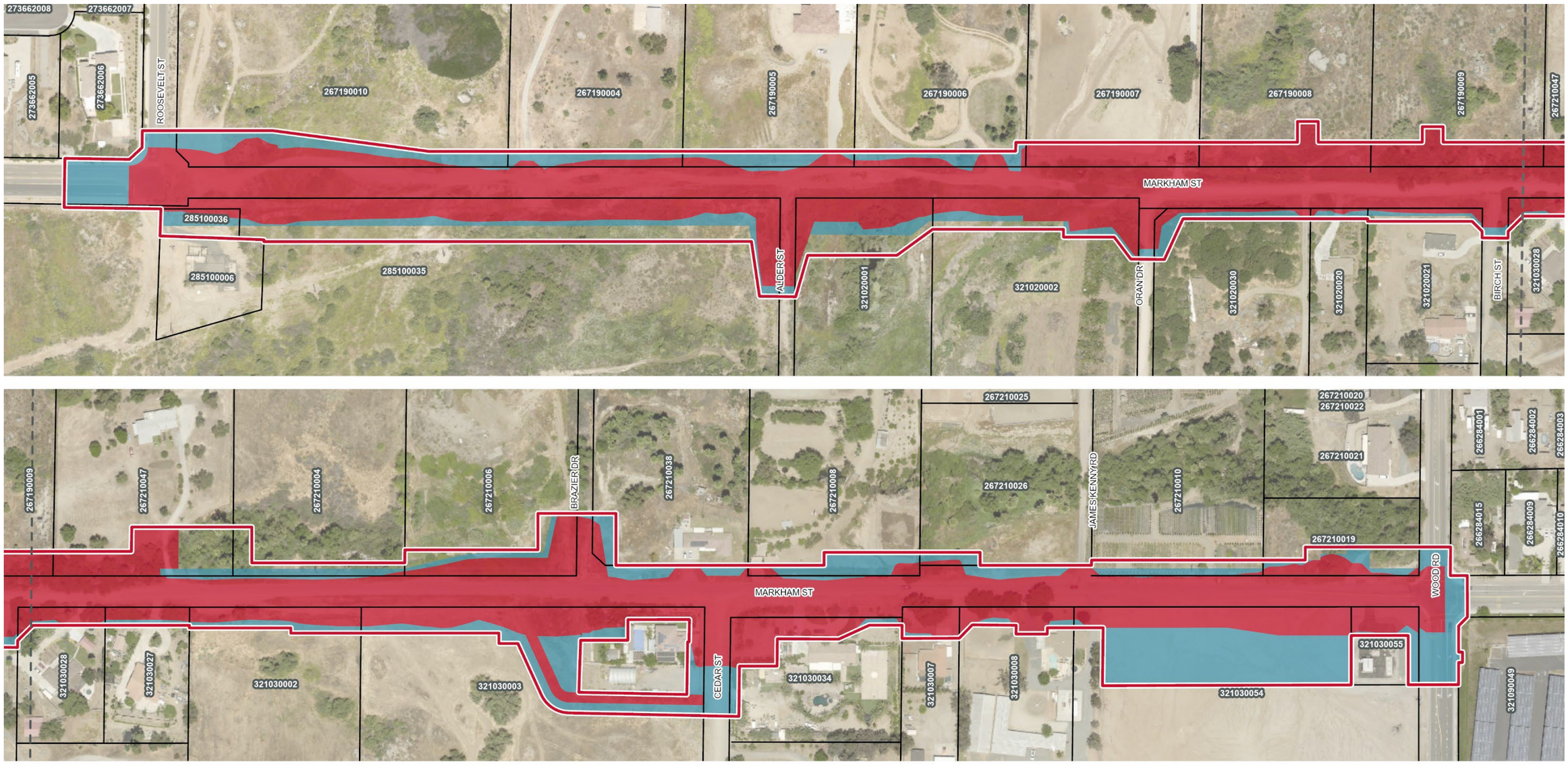
Figure 2. Project Area



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3 Environmental Factors Potentially Affected

The environmental factors checked below were determined to have a "Less Than Significant Impact with Mitigation Incorporated", as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☐	Transportation	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

The Project would have No Impacts related to: Land Use/Planning, Mineral Resources, Population/Housing, and Recreation.

The Project would have a Less than Significant Impact related to: Aesthetics, Agriculture and Forestry Resources, Air Quality, Energy, Geology/Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Public Services, Transportation, Utilities/Service Systems, and Wildfire.

The Project would have a Less than Significant Impact with Mitigation Incorporated on: Biological Resources, Cultural Resources, Tribal Cultural Resources, and Mandatory Findings of Significance. Mitigation for impacts on these resource areas includes the following:

BIO-6 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat will be mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio of 2:1 for permanent impacts and at a ratio of 1:1 for temporal loss of least Bell's vireo (LBV) nesting habitat.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP) Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the Santa Ana Watershed Authority (SAWA) Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation location, long-term management entity, and mitigation categories will be included in a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared for the Project and submitted to regulatory agencies (U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Wildlife [CDFW], U.S. Army Corps of Engineers [USACE], and Regional Water Quality Control Board [RWQCB]) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that occur in the on-site habitat being impacted (i.e., mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

DBESP-5 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat (i.e. black willow woodland, mule fat thickets, cattail marsh, cocklebur patches, and perennial pepperweed

patches) will be mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio of 2:1 for permanent impacts to riparian habitat. Impacts to riparian habitat will be mitigated for in-kind (i.e. impacts to riparian woodland habitat would be mitigated for with riparian woodland; herbaceous riparian habitat would be mitigated for with herbaceous riparian habitat) or with a higher quality habitat. Mitigation for riparian habitat that also supports nesting LBV (i.e., black willow woodland and mule fat thickets) will be mitigated through in-kind replacement and will be required to demonstrate that the replacement habitat supports nesting LBV.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the WRCMSHCP Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the SAWA Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation site location, long-term management entity, and mitigation categories will be included in a HMMP that will be prepared for the Project and submitted to regulatory agencies (USFWS, CDFW, USACE, and RWQCB) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that occur in habitat being impacted (i.e. mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

ARC-1 County appointed archaeological and tribal monitors will be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed. Participating tribes will rotate their schedule so that one tribal monitor at a time is on the Project site during any excavation.

Prior to commencement of construction, there will be a meeting in which the construction staff, tribal monitor(s), archaeological monitor/consultant, and Resident Engineer (RE) will conduct preconstruction archaeological resource sensitivity and awareness training. This meeting will also discuss the monitoring and safety requirements. It is critical that all parties understand the methods and goals as well as the protocols for the inadvertent discovery of archaeological resources, tribal resources, and/or human remains during construction. Record of this meeting shall be placed in the RE file.

The archaeological monitor, in coordination with the tribal monitor, shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow for identification, evaluation, and potential recovery of cultural resources. Should buried cultural deposits be encountered, the archaeological monitor shall contact the County Archaeologist immediately, and in coordination with the THPOs of consulting tribes, will evaluate the resource and formulate a plan to move forward.

ARC-2 If archaeological and/or tribal resources are encountered during construction, the archaeological monitor, in coordination with the tribal monitor shall:

- Halt all work within a 60-foot radius and shall immediately inform the RE.
- Following notification, the archaeological monitor, in coordination with the tribal monitor, will make a preliminary assessment of the discovery to determine whether the find is an isolated artifact or recent deposit. If the find is determined to be isolated or recent, construction will be allowed to resume.
- Should the monitor(s) determine the discovery is potentially significant, the monitor(s) shall contact the County Archaeologist immediately to evaluate the discovery and if necessary, formulate appropriate mitigation measures.
- If the discovery contains tribal resources, all consulting tribes shall be contacted and informed of the discovery. The tribal resource discovery, including human remains, shall not be disturbed (i.e., photographed, videoed, or moved) until the County Archaeologist and consulting tribes have agreed upon appropriate treatment measures.

If archaeological and/or tribal resources are encountered anywhere during Project construction when no monitor(s) are present, work in the area must halt within a 60-foot radius until the monitor(s) can

evaluate the nature and significance of the find and formulate appropriate evaluation and/or mitigation measures.

Once the agreed upon treatment measures have been implemented, construction activity can resume in that area.

ARC-3 In the event that human remains are discovered during construction at any time, the following provisions shall apply:

- State Health and Safety Code Section 7050.5 states that no further disturbance and all construction activity shall immediately be halted within 60 feet of the discovery until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American and not under the coroner's jurisdiction, within 24 hours the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). During this time all remains, associated soils, and artifacts will remain in situ, and shall be protected from public viewing. The County will take appropriate measures to protect the discovery site from disturbance during any negotiations. This may include restricting access to the discovery site and the need to hire 24-hour security. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Work will be suspended within a 60-foot radius of the human remains until the MLD's recommendations are implemented.
- A meeting shall be convened between the County Archaeologist, archaeological monitor, and the MLD to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the discovery. Resource evaluations shall be limited to non-destructive analysis.
- Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.
- The County Archaeologist will work with the MLD in regard to the treatment of the remains and all associated funerary objects and will ensure that any identified human remains will be secured while they are left in place and while treatment decisions are in progress. Information concerning the discovery shall not be disclosed pursuant to the specific exemption set forth in California Government Code Section 6254.5(e).
- The County shall relinquish ownership of all tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW through one or more of the following methods and provide evidence of same:

    a. A pre-determined reburial area will be determined prior to construction. This shall include measures and provisions to protect the future pre-determined reburial area within the Project property from any future impacts. The measures for reburial shall be culturally appropriate as determined through consultation with the consulting tribes and include, at least, the following:

        i. Measures to protect the reburial area from any future impacts in perpetuity.

        ii. Reburial shall not occur until all required cataloguing (including a complete photographic record) and analysis have been completed on the cultural resources, with the exception that sacred and ceremonial items, burial goods, and Native American human remains are excluded. No cataloguing, analysis, or other studies may occur on human remains, grave goods, and sacred and ceremonial items. Any reburial processes shall be culturally appropriate and approved by the consulting tribes.

        iii. Listing of contents and location of the reburial shall be confidential and not subject to a Public Records Request.

        iv. The County shall establish a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

b. Should reburial of collected cultural items be preferred, it shall not occur until after the Archaeological Resources Monitoring Report/Data Recovery Report has been submitted to the County. Should curation be preferred, the County is responsible for all costs and the repository and curation method shall be described in the Archaeological Resources Monitoring Report/Data Recovery Report.

c. Tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW that are to be reburied are to be kept safe on site on a locked and secure location within the RE's office (if feasible) until disposition of such tribal resources takes place for reburial.

- Artifacts found outside the County ROW are not subject to these requirements and are to be relinquished to the consulting tribes by the property owner for suitable curation or ownership. It is the responsibility of the consulting tribes to come to agreement with the property owner.

In the event that the County Archaeologist and MLD are in disagreement regarding the disposition of the remains, State law will apply, and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

ARC-4 Should additional actions be proposed outside the currently defined Project area that have the potential for additional subsurface disturbance, further cultural resource management may be required.

Additional avoidance and minimization measures that would be implemented to further reduce impacts are described below:

Avoidance Measures:

BIO-7 **Crotch's Bumble Bee Survey.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. Within one year prior to construction, a habitat assessment for Crotch's bumble bee will be conducted within the Project area and an appropriate survey buffer be established by a qualified biologist with experience surveying for and observing Crotch's bumble bee. If the qualified biologist determines that suitable habitat is present, surveys shall be conducted to determine the presence/absence of Crotch's bumble bee. Surveys shall be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983). Survey results, including negative findings, shall be submitted to the CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. At minimum, a survey report should provide the following: a) A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee; b) Field survey conditions that should include name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched; c) Map(s) showing the location of nests/colonies; and, d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

BIO-8 **Crotch's Bumble Bee Avoidance.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the Crotch's bumble bee survey, the County shall ensure that a plan to fully avoid impacts to Crotch's bumble bee be developed in consultation with a qualified entomologist during final design. The plan shall include effective, specific, enforceable, and feasible measures. An avoidance plan should be submitted to CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. If Crotch's bumble bees are determined to be present within the Project area and it is determined the species will be impacted by Project implementation, appropriate mitigation shall be determined in consultation with CDFW.

BIO-9 **Crotch's Bumble Bee Incidental Take Permit.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the survey (required by Measure BIO-7), and if impacts to Crotch's bumble bee cannot be feasibly avoided during Project construction, the County shall ensure that the designated qualified entomologist coordinate with CDFW to obtain appropriate permit for incidental take of Crotch's bumble bee prior to commencement of Project construction in habitat occupied by Crotch's bumble bee. The incidental take permit would quantify

and provide appropriate mitigation for impacts on Crotch's bumble bee habitat. Mitigation for impacts to Crotch's bumble bee habitat would be at a ratio comparable to the Project's level of impacts.

BIO-10 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for southwestern willow flycatcher (SWFL) and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

BIO-13 **Coastal California Gnatcatcher Avoidance.** Should nesting coastal California gnatcatchers (CAGN) be found on or in the immediate vicinity (approximately 300-feet) of the Project area during surveys conducted in compliance with Measure BIO-11, the qualified biologist shall establish an appropriate buffer to prevent alteration of nesting CAGN behavior. No construction or clearing shall be conducted within the established buffer until the designated biologist determines that the young have fledged, or the nest is no longer active.

BIO-15 **Bat Roosting Habitat Removal.** Prior to tree removal or trimming, large trees and snags shall be examined by a qualified bat biologist to ensure that no roosting bats are present. If trimming or removal of mature trees and snags is necessary for Project construction, trimming/removal activities should be performed outside of the general bat maternity season, which occurs from March 1st through October 1st, to avoid direct effects to nonvolant (flightless) young that may roost in trees within the study area. If trimming or removal of trees during the general bat maternity season cannot be avoided, a qualified biologist will monitor tree removal unless nighttime surveys conducted within one week of removal indicates no tree-roosting bat activity within the study area.

Palm frond trimming, if necessary, shall be conducted outside the bat maternity season to avoid potential mortality of flightless young. Since western yellow bats and western mastiff bats may be present in untrimmed palm tree fronds, a qualified bat biologist shall be present to monitor frond removal. Dead fronds shall be removed under the guidance of the bat biologist, following the two-day method described below.

DAY 1: Only trim the outermost fronds may be trimmed (no more than 50 percent of the palm fronds) using hand tools or chainsaws only (no dozers, backhoes, cranes, or other heavy equipment, other than to provide access for tree cutters using chainsaws).

DAY 2: The palm tree must be felled. Day 2 activities must occur the day immediately following the Day 1 activities. To accomplish this, work may need to be phased and Day 1/Day 2 steps can be repeated. Should bats emerge during the tree trimming, trimming activities must temporarily cease at the individual tree until bats are no longer actively emerging from the tree.

DBESP-3 During construction, all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the U.S. or CDFW-regulated streambed.

DBESP-4 Prior to construction a stormwater pollution prevention plan (SWPPP) and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and non-point pollution sources on site during construction. The SWPPP will identify specific best management practices to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard.

DBESP-6 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for SWFL and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

DBESP-7 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active

nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

HAZ-1 **Polychlorinated Biphenyls:** Soil sampling for PCBs and heavy metals will be conducted in soil in unpaved locations surrounding utility pole-mounted transformers that would be disturbed as a result of the Project prior to ground disturbing activities for proper management.

HAZ-2 **Treated Wood Waste:** Treated wood objects are handled as treated wood waste and are managed per Chapter 34, Title 22 California Code of Regulations Sections 67386.1 through 67386.12, "Alternative Management Standards for Treated Wood Waste." All treated wood waste should be properly disposed at a landfill permitted to accept treated wood waste. In addition, it could not be determined how long the wooden utility poles had been established and therefore, a potential for elevated levels of arsenic is possible in the soil due to the wood preservatives. Soil in unpaved locations surrounding wooden utility poles that would be disturbed as a result of the Project will be sampled for arsenic and semi volatiles for proper management.

HAZ-3 **Pesticides:** Soil sampling for pesticides will be conducted in soil on historical and existing agricultural land use areas and nurseries that would be disturbed as a result of the Project prior to ground disturbing activities for proper management.

N-1 **Construction Schedule:** Limit roadway construction activities to the exempted daytime hours in the Riverside County Code, Ordinance No. 847, which are 6:00 AM to 6:00 PM during the months of June through September and 7:00 AM to 6:00 PM during the months of October through May (except weekends and holidays).

N-2 **Construction Equipment:** All construction equipment should be outfitted with manufacture-recommended mufflers and silencers.

N-3 **Idling:** Maintaining equipment in an idling mode should be minimized.

T-1 **Traffic Control Plan:** During final design, a TCP will be prepared for the Project. The goals of the TCP during Project construction will include minimizing traffic delay or time spent in queue; maintaining traffic flow throughout the Project area and the surrounding areas; and providing a safe environment for the work force and motoring public.

Minimization Measures:

BIO-1 **Project Biologist.** A qualified biologist will oversee compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The Project biologist shall designate areas that need temporary fencing and monitor construction. The biologist shall monitor activities during critical times such as vegetation removal, the installation of Best Management Practices (BMPs) and Environmentally Sensitive Area (ESA) fencing to protect native species and ensure that all avoidance and minimization measures are properly constructed and followed. The biologist will conduct site visits a minimum of once weekly throughout construction to verify that required biological resources protections are in place.

BIO-2 **Worker Environmental Awareness Program (WEAP).** Prior to construction, the Project biologist shall conduct WEAP training for all Project employees and contractors that will be on site. The training will advise workers of potential impacts to sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where they will remain through the duration of the work. The contractor will be required to provide the County with evidence of the employee training (e.g., sign in sheet or stickers) upon request.

BIO-3 **Environmentally Sensitive Areas (ESAs).** During construction, the Project contractor will minimize Project impacts on riparian and California buckwheat scrub habitat to the fullest extent possible. These areas shall be demarcated as ESAs. No grading or fill activity of any type will be permitted within designated ESAs. Prior to construction, the Project biologist shall ensure that non-impacted native habitat located outside of the Project area is demarcated as ESAs. Prior to construction, exclusionary fencing shall be installed around all ESAs under supervision of the Project biologist.

ESA fencing will remain in place throughout the duration of construction. All construction equipment will be operated in a manner to prevent accidental encroachment or damage into ESAs. The biological monitor will conduct at a minimum, once weekly inspections of the ESA fencing to ensure that it is in place and properly maintained throughout the duration of construction. The contractor will be responsible for maintaining the ESA fencing per the biological monitor's direction.

BIO–4 **Equipment Maintenance and Staging.** During construction all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located a minimum of 50 feet away from any drainage areas, so as to prevent runoff of any spills from entering ESAs. Construction personnel will strictly limit their activities to the limits of disturbance and designated staging areas and routes of travel.

BIO–5 **On-site restoration of native habitat.** Temporary impacts to native habitat will be restored in-kind following construction. On-site restoration methodology for riparian habitat will be described in the Restoration Plan for the Project, which will be submitted to the resource agencies and subject to agency approval as part of the regulatory permit applications, prior to Project construction activities. Temporary impacts to non-native riparian habitats would be restored using cuttings from native riparian trees and shrubs within the Project area following construction. On-site restoration areas would be monitored for a period of 5 years following restoration to ensure restoration activities are meeting success criteria identified in the Restoration Plan. Any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site.

BIO-11 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged, or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

BIO-12 **Nesting Bird Surveys**. Vegetation removal or tree (native or exotic) trimming activities will occur outside of the nesting bird season. Other than for suitable LBV habitat, in the event that vegetation clearing is necessary during the nesting season (i.e., February 15 through August 31), a qualified biologist will conduct a preconstruction survey to determine whether any active bird nests are present. Should nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. This buffer shall be clearly marked in the field, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged, or the nest is no longer active.

BIO-14 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for burrowing owl (BUOW) will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. Appropriate measures to avoid take of active BUOW nests may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, passive relocation would be conducted by a qualified avian biologist outside of the nesting season, if necessary.

DBESP-1 Prior to construction, a weed abatement program will be developed and implemented to minimize the importation of non-native plant material during and after construction. Eradication strategies from the weed abatement program will be employed during construction activities, should an invasion occur.

DBESP-2 During construction, when work is conducted during the fire season (as identified by the Riverside County Fire Authority) adjacent to any vegetation, the appropriate firefighting equipment (e.g., extinguishers, shovels, and water tankers) will be made available on site during all phases of Project construction to minimize the potential for human-caused wildfires. Shields, protective mats, and/or other fire preventive methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires will advise the construction contractors regarding fire risk from all construction-related activities.

DBESP-8 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for BUOW will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. The qualified biologist shall determine appropriate measures necessary to avoid take of active BUOW nests, which may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, a qualified avian biologist would conduct passive relocation outside of the nesting season, if necessary.

Determination

On the basis of this initial evaluation:

☐ I find that the project would not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jan Bulinski

Environmental Project Manager

County of Riverside Transportation Department

Date:

3.1 Aesthetics

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Source(s):

This section is based on the County of Riverside General Plan, Chapter 5 Multipurpose Open Space Element (County of Riverside 2015) and the California Department of Transportation (Caltrans) California Scenic Highway System Map (Caltrans 2022).

Regulatory Setting:

CEQA established that it is policy of the state to take all action necessary to provide people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

Environmental Setting:

The Project area is characterized by gradually sloping landscape in a southwesterly direction. The eastern 0.5-mile-long portion of Markham Street within the Project area is a paved roadway approximately 20 feet in width with graveled shoulders (Figure 3.1-1). The western 0.8-mile-long portion of Markham Street is a dirt roadway (Figure 3.1-2). Adjacent properties along this roadway segment consist of vacant land, single-family homes, and public facilities including a sewer-lift station and water-pumping station. Overhead power lines are present along the northern portion of Markham Street. No street lighting is present within the Project area.

According to the County General Plan, Chapter 5 Multipurpose Open Space Element (County of Riverside 2015), there are no scenic vistas or other designated scenic resources at or within the vicinity of the Project. According to the Caltrans California Scenic Highway System Map (Caltrans 2022) and the Lake Mathews/Woodcrest Area Plan (County of Riverside 2021c), Markham Street is not designated as or adjacent to a state scenic highway, an officially eligible state scenic highway, or locally designated scenic highway (County of Riverside 2021c). The nearest state scenic highways to the Project area are Interstate 15 and State Route 74, which are approximately 9.6 miles to the southwest and 7.5 miles to the southeast, respectively. The nearest local designated scenic highways are El Sobrante Road and the portion of Cajalco Road in the vicinity of Lake Mathews.

The Project area is adjacent to the Mockingbird Canyon Creek, which flows from east to west, generally parallels the Project area, and crosses into the Project area in the vicinity of Brazier Drive (HDR 2023a). Viewers in the Project area consist of travelers and residents.

The visual characteristics along Markham Street include the roadway itself overhead utility lines, riparian habitat associated with Mockingbird Canyon Creek, and fences along adjacent properties (Figures 3.1-1 through 3.1-5 below).

Figure 3.1-1. Eastern portion of Markham Street in Project area west of Wood Road, facing west.

Figure 3.1-2. Western portion of Markham Street in Project area east of Roosevelt Street, facing southwest.

Figure 3.1-3. Portion of APN 267-210-047 in the Project area showing riparian vegetation, facing west.

Figure 3.1-4. Portion of APN 321-030-003 within the Project area showing agricultural area, facing east.

Figure 3.1-5. Portion of APN 267-190-007 in the Project area showing graded area, facing northwest.

Impact Analysis

a) **No Impact.** The County General Plan does not identify scenic vistas within or adjacent to the Project area. The Project area is located southwest of the foothills of the San Bernardino Mountains and southeast of the Jurupa Mountains, which are both natural landmarks; however, these areas are both over 18 miles away and the Project does not include new building structures that would obstruct views or result in a substantial adverse effect on a scenic vista. No impact would occur.

b) **No Impact.** The Project area does not include any scenic resources such as trees, rock outcroppings or historic buildings, nor are there state scenic highways present. No impact would occur.

c) **Less Than Significant Impact.** The Project would not introduce visual obtrusions and the Project would be generally consistent with the existing visual character as it would not detract from the quality of public views of the site. In addition, much of the proposed infrastructure would occur at the ground surface and would not represent a prominent visual change in the existing visual landscape.

During construction, traveler's views to and from the roadway would be temporarily affected by the presence of large construction equipment, materials, crews, and signage. Vegetation adjacent to the roadway would be removed and restored to implement roadway improvements. Impacts are considered less than significant.

d) **No Impact.** The Project does not include new permanent lighting and construction would be limited to daylight hours. Therefore, no new light or glare sources would affect day or nighttime views of the area. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.2 Agriculture and Forestry Resources

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Source(s):

This section is based on the Farmland Mapping and Monitoring Program (California Department of Conservation 2020) and the County General Plan, Chapter 5 Multipurpose Open Space Element (County of Riverside 2015).

Regulatory Setting:

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (the Williamson Act, Government Code Sections 51200 through 51297.4) provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses. The act enables counties and cities to designate agricultural preserves (Williamson Act lands) and within these preserves, offer preferential taxation to agricultural landowners based on the agricultural income producing value of the property. CEQA requires the review of projects that would convert Williamson Act contract land to non-agricultural uses.

Environmental Setting:

No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance was identified in the Project area. As depicted on Figure 3.2-1, the California Department of Conservation Farmland Mapping and Monitoring program classifies the Project area as 'Urban and Built-Up Land', 'Farmland of Local Importance', and 'Other Lands' (California Department of Conservation 2020). ''Farmland of Local Importance' is land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. The County General Plan, Chapter 5 Multipurpose Open Space Element does not identify any County lands under a Williamson Act contract within or adjacent to the Project area (County of Riverside 2015). However, the Project area is zoned as Light Agricultural (A-1), and Residential Agricultural (R-A), see Figure 3.2-2. The General Plan does not designate any agricultural land uses in the Project area (Figure 3.2-3).

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Figure 3.2-1. California Important Farmland Designations

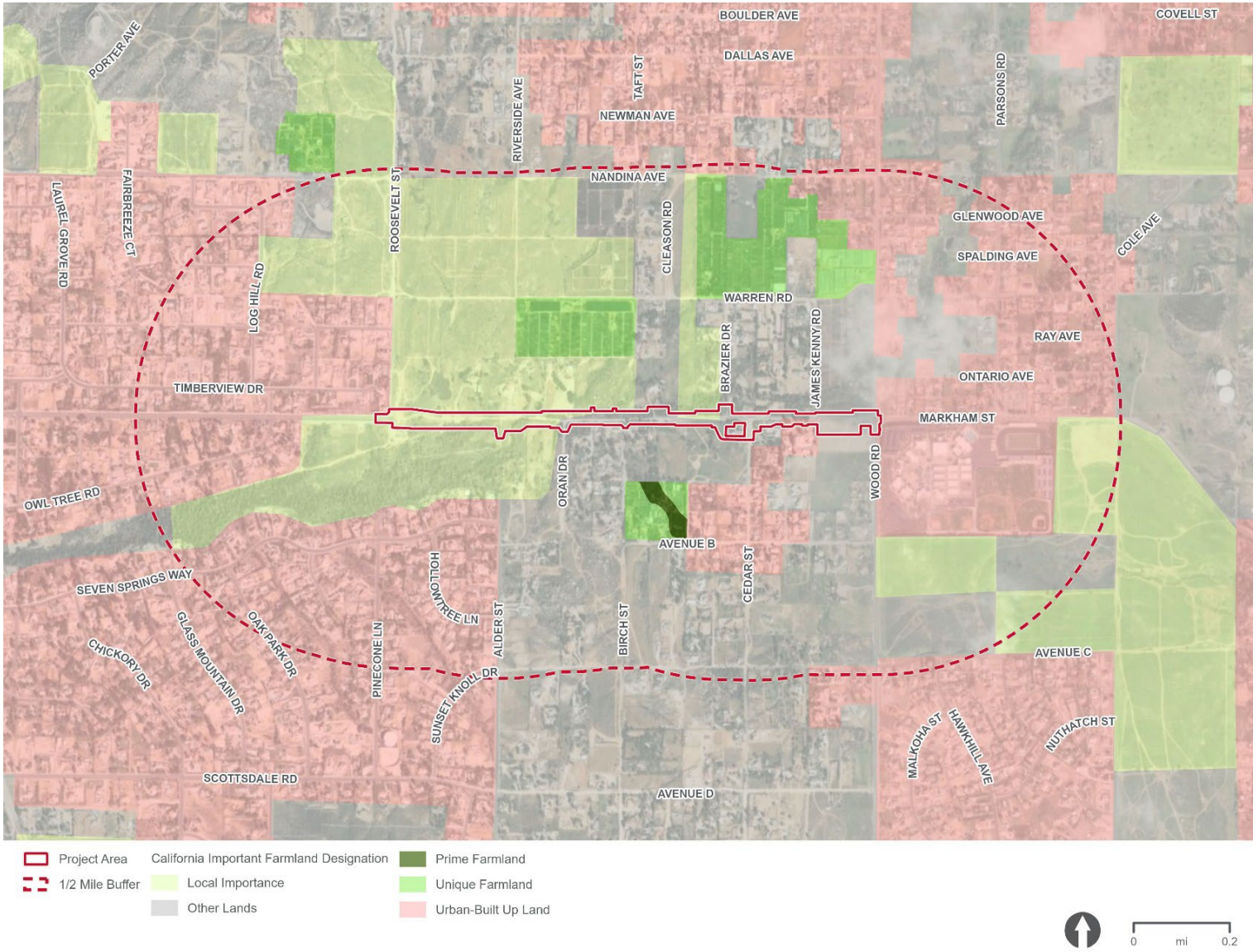

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Figure 3.2-2. Zoning Designation

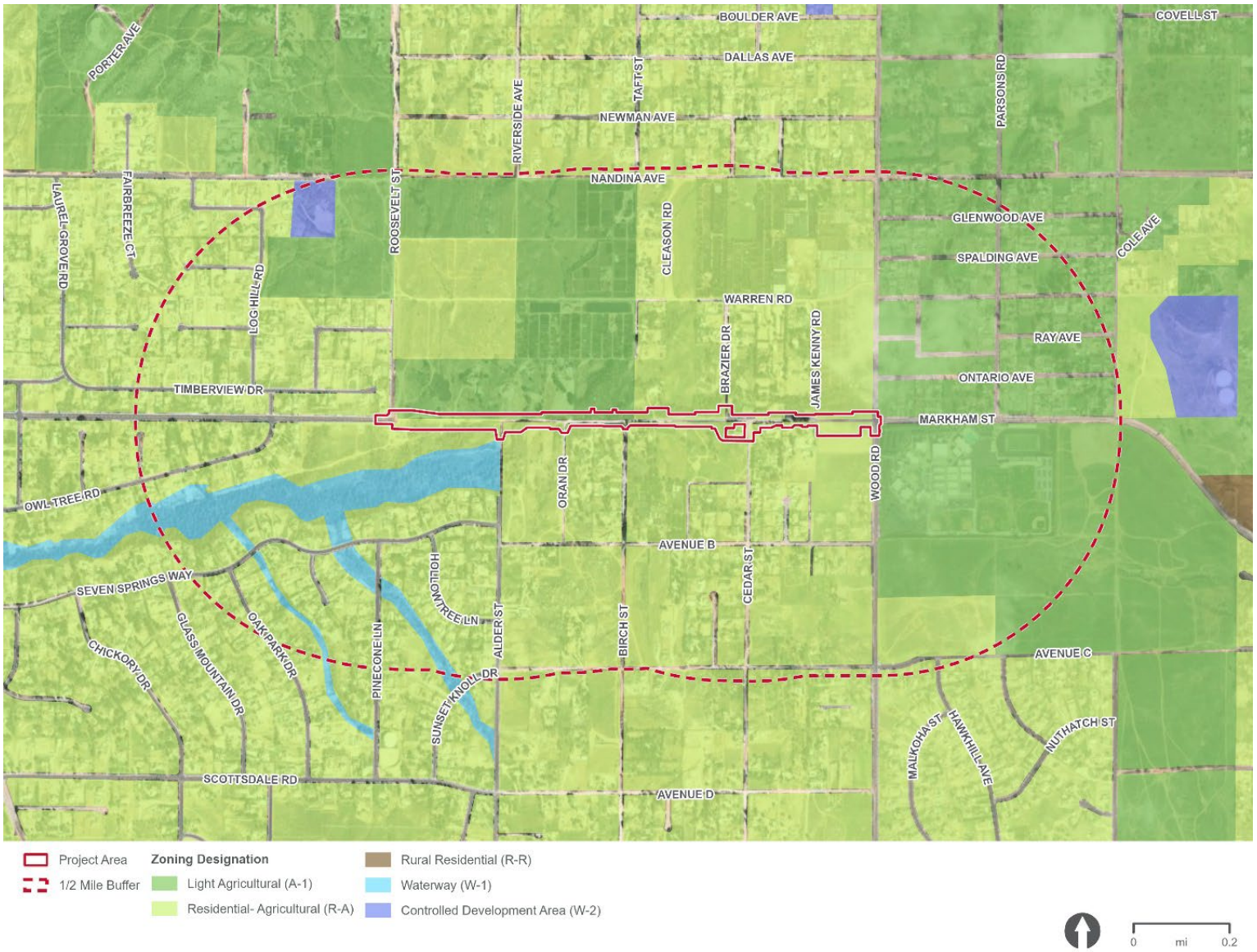

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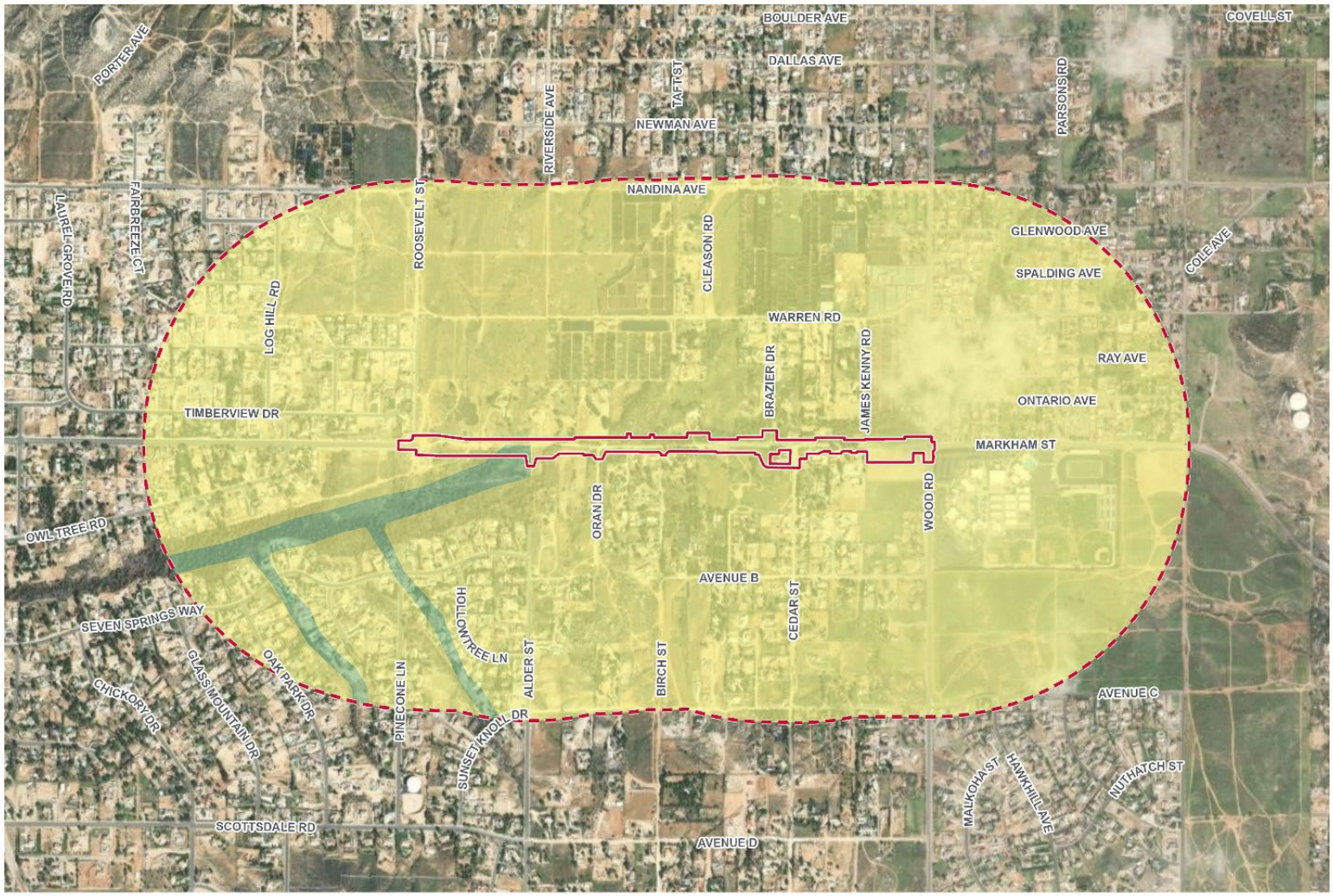
Figure 3.2-3. General Plan Land Use Designations



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Impact Analysis:

a) **No Impact.** No conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur. No impact would occur.

b) **No Impact.** The Project would require partial acquisition of ROW along the northern and southern sides of Markham Street, including lands zoned for agricultural use. However, these lands are directly adjacent to the roadway and not actively used for agriculture use, and no re-zoning would be required. As described above, Markham Street is identified in the County General Plan Circulation Element as a secondary highway. No impact would occur.

c) **No Impact.** The Project is not located on any land zoned as forest lands or timberland and would not result in any conflicts to such land uses. No impact would occur.

d) **No Impact.** The Project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

e) **Less Than Significant Impact.** Construction of the Project would require partial acquisition of ROW along the northern and southern sides of Markham Street, including lands currently zoned for agricultural use. A portion of properties zoned for agricultural use would be converted to transportation use to facilitate implementation of the Project. However, the proposed improvements are consistent with the future roadway classification for Markham Street as a secondary highway per the approved County General Plan. The Project is not located on any land zoned as forest lands or timberland and would not result in any conflicts to such land uses. Impacts are considered less than significant.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.3 Air Quality

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Source(s):

This section is based on the Air Quality Report (AQR) (ERP 2023) and the Traffic Impact Assessment (TIA) Technical Memorandum (HDR 2022a), and the Supplemental TIA Memorandum (HDR 2022b) that were prepared for the Project.

Regulatory Setting:

The Federal Clean Air Act is the primary federal law that governs air quality, and the California Clean Air Act is its companion state law. These laws and regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) set standards for the concentration of pollutants in the air. At the federal level, the Clean Air Act requires the U.S. EPA to set National Ambient Air Quality Standards (NAAQS). NAAQS and California Ambient Air Quality Standards (CAAQS) have been established for six transportation-related criteria air pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM10) and particles of 2.5 micrometers and smaller (PM2.5)—and sulfur dioxide (SO2). In addition, national and state standards exist for lead (Pb), but lead is not considered a transportation-related pollutant. In California, sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride are also regulated.

The Project area is in federal nonattainment area for O_3, $PM_{2.5}$, federal maintenance for CO and PM_{10}, and state nonattainment area for O_3, PM_{10}, $PM_{2.5}$. The Clean Air Act requires areas not in attainment of the NAAQS to develop an emission reduction strategy that will bring the area into attainment in a timely manner. The South Coast Air Quality Management District (SCAQMD) prepared the 2016 Air Quality Management Plan (AQMP) with strategies and measures to reduce emissions to attain state and federal ambient air quality standards and implement the state air quality program through coordination with local planning agencies. While the SCAQMD has more recently adopted a 2022 AQMP, which includes additional measures to meet the 2015 8-hour ozone NAAQS, the 2016 AQMP was the current AQMP used to establish consistency at the time of writing the AQR. Air pollutant emissions from individual projects are evaluated against the SCAQMD daily significance thresholds for construction and operation. Table 3.3-1 presents SCAQMD's regional daily construction and operational thresholds. Table 3.3-2 presents SCAQMD's localized daily construction and operational thresholds specific to the Project.

Table 3.3-1. South Coast Air Quality Management District Regional Significance Thresholds

Pollutant	Mass Daily Thresholds (lb/day)	
	Construction	Operations
NO_X	100	55
VOC[a]	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550
Pb[b]	3	3

Source: SCAQMD 2023

Notes:
lb/day=pounds per day

[a] The terms VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

[b] The project would result in no lead emissions sources during the construction period or operations. As such, lead emissions are not evaluated herein.

Table 3.3-2. South Coast Air Quality Management District Localized Significance Thresholds[a]

Pollutant	Maximum Mass Daily Thresholds (lb/day)	
	Construction	Operations
NO_X	170	170
CO	883	883
PM_{10}	7	2
$PM_{2.5}$	4	1

Source: SCAQMD 2008

Notes:
lb/day=pounds per day

[a] Localized thresholds are for a 2-acre site in Source Receptor Area 24 Perris Valley with a receptor distance of 82 feet.

Environmental Setting:

The Project area is located within the Woodcrest community in Riverside County, an area within the South Coast Air Basin (SCAB), which includes all of Orange County and a portion of Los Angeles, San Bernardino, and Riverside Counties. Air quality regulations in the SCAB fall under the jurisdiction of the SCAQMD. Existing air quality was evaluated in the AQR at the two closest air quality monitoring stations, SCAQMD's Perris Valley Station and the Mission Boulevard Station in Rubidoux (Riverside-Rubidoux). The Perris Valley and Riverside-Rubidoux monitoring stations are representative of the Project area because the climate, topography, and urban setting are like those of the Project area. During the 2018 to 2020 monitoring period, exceedances were recorded at these monitoring stations for the state 1-hour O3 standard, state and federal 8-hour O_3 standards, PM_{10} and $PM_{2.5}$ standards (ERP 2023).

Impact Analysis:

a) **Less Than Significant Impact.** As previously discussed in the Regulatory Framework and Existing Setting sections above, the SCAQMD's 2016 AQMP is the applicable air quality plan with which to establish consistency. If a project is consistent with the goals and assumptions in the air quality plan, then it will not conflict with the region's ability to attain the federal and state air quality standards. In accordance with the SCAQMD's CEQA Air Quality Handbook, the Project must meet two criteria to establish consistency. For the first criterion, the Project must not contribute to an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations that may delay the attainment of air quality standards. As presented in Section 3.3(b) below, the Project would not exceed SCAQMD's regional daily significance thresholds and would therefore be consistent with this first criterion. For the second criterion, the Project shall be consistent with the growth forecasts developed by the Southern California Association of Governments

(SCAG) for population, housing, and employment in its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The Project would not build housing or induce population growth as a roadway improvement project. The construction duration would be only 6 months and would be staffed with a local workforce. Operations and maintenance would be similar to existing conditions and not require substantially more workers. The SCAQMD uses the growth forecasts in the SCAG RTP/SCS to develop the emissions inventory in the AQMP so consistency with the SCAG RTP/SCS and associated growth forecasts would infer consistency with the assumptions in the AQMP. Therefore, the Project would be consistent with the second criterion. Impacts are considered less than significant.

b) **Less Than Significant Impact.** During construction, the Project would result in temporary air quality impacts associated with exhaust emissions from construction equipment and mobile sources, and fugitive dust. Fugitive dust would be controlled by watering disturbed areas three times per day in accordance with SCAQMD Rule 403. Construction is anticipated to commence in the first quarter of 2026 and last 6 months. Construction activities are separated into the following phases: clearing and grubbing, asphalt demolition, roadway excavation, imported borrow, utility construction, flatwork, aggregate base, and asphalt paving. Construction emissions were estimated in the AQR using the California Emissions Estimator Model (CalEEMod, version 2022.1). As shown in Table 3.3-3, peak daily construction-related emissions would not exceed the SCAQMD's regional thresholds (ERP 2023). While mitigation is not required for construction, the construction contractor would be required to comply with Caltrans' Standard Specification in Section 14-9 and other construction best practices including relevant SCAQMD rules described in the AQR (ERP 2023).

During operation, the Project's long-term air quality impacts are associated with motor vehicles operating on the roadway network. Operational emissions were evaluated in the AQR for the existing year (2021), opening year (2026), and horizon year (2046). CEQA typically compares the Project to existing conditions, but because vehicle emissions are trending downward from improvements in technology and stricter regulatory standards, both the No Build and existing conditions are presented for comparison with the Build condition (Project). As shown in Table 3.3-4, operation of the Project would increase PM_{10} and $PM_{2.5}$ and decrease ROG, NO_x, and CO emissions compared to existing conditions (ERP 2023). The increase in PM is partly due to background growth in VMT from 2021 to 2046 as PM fugitive dust emissions are a function of VMT and fugitive dust emission factors are fairly constant over time. Exhaust emission factors decrease over time from improvements in engine technology, fuel efficiency, and the retirement of older- high-emitting vehicles, which reduces exhaust emissions. Compared to the No Build condition, the Project would not result in an increase for any criteria pollutant in both 2026 and 2046 because the Project would have less annual VMT than the No-Build. Because the only increase in operational emissions (PM_{10} and $PM_{2.5}$) would come from the background growth in VMT and not due to implementation of the Project, the Project would not exceed the SCAQMD's regional daily operational thresholds.

In summary, both the construction and operational emissions would not exceed the SCAQMD's regional daily significance thresholds for any pollutant in non-attainment (O_3, PM_{10}, $PM_{2.5}$) or cause a significant impact on air quality. Therefore, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment. Impacts are considered less than significant.

Table 3.3-3. Project Construction-Period Regional Emissions Estimates

Phase	Maximum Daily Emissions (lb/day)					
	ROG	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
Clearing and Grubbing	2	14	14	<0.1	4	2
Asphalt Demolition	1	13	12	<0.1	8	2
Roadway Excavation	3	27	28	<0.1	6	2
Imported Borrow	2	31	22	<1	11	3
Utility Construction	<1	8	10	<0.1	2	<1
Flatwork	<1	4	5	<0.1	2	<1
Aggregate Base	<1	9	10	<0.1	4	<1
Asphalt Paving	20	7	8	<0.1	3	<1
Maximum Daily Emissions	**20**	**31**	**28**	**<1**	**11**	**3**
SCAQMD Significance Threshold	75	100	550	150	150	55

Table 3.3-3. Project Construction-Period Regional Emissions Estimates

Phase	Maximum Daily Emissions (lb/day)					
	ROG	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
Exceeds Threshold?	No	No	No	No	No	No

Source: ERP 2023

Notes:
SCAQMD=South Coast Air Quality Management District; lb/day=pounds per day; CO = carbon monoxide; NO_X = nitrogen oxide; $PM_{2.5}$ = fine particulate matter; PM_{10} = suspended particulate matter; ROG = reactive organic gas; SO_2 = sulfur dioxide Particulate matter values include exhaust and fugitive dust emissions.

Table 3.3-4. Operational Criteria Pollutant Emissions (tons per year)

Scenario/Analysis Year	ROG	NO_X	CO	SO_2	PM_{10}[a]	$PM_{2.5}$[a]
Existing Year (2021)	2	14	56	0.20	49	13
Opening Year (2026) No-Build Condition	1	9	44	0.19	54	14
Opening Year (2026) Build Condition	1	9	44	0.19	54	14
Horizon Year (2046) No-Build Condition	1	11	46	0.21	77	20
Horizon Year (2046) Build Condition	1	11	46	0.21	77	20
Net Emissions Comparison to Existing Conditions						
Opening Year (2026) Build Condition	-1	-5	-12	0	5	1
Horizon Year (2046) Build Condition	-1	-3	-10	0	28	7
Net Emissions Comparison to No-Build Conditions						
Opening Year (2026) Build Condition	0	0	0	0	0	0
Horizon Year (2046) Build Condition	0	0	0	0	0	0

Source: ERP 2023

Notes:
Modeled using EMFAC2017.

CO = carbon monoxide; NO_X = nitrogen oxide; $PM_{2.5}$ = fine particulate matter; PM_{10} = suspended particulate matter; ROG = reactive organic gas; SO_2 = sulfur dioxide Particulate matter values include exhaust and fugitive dust emissions.

c) **Less Than Significant Impact.** The SCAQMD defines sensitive receptors as people who have increased sensitivity to air pollution. Sensitive receptors include schools, athletic fields, playgrounds, childcare centers, convalescent centers, retirement homes, hospitals, and residential areas. Sensitive land uses within 2,000 feet of the Project area include residences and Citrus Hill High School. The closest receptors to the Project area are existing residences located adjacent to the Project area along the existing roadway (ERP 2023).

SCAQMD requires a localized analysis of air quality impacts to nearby sensitive receptors. The analysis of localized air quality impacts focuses only on the on-site activities of a project and does not include emissions that are generated off-site, such as on-road haul or delivery truck trips. Consistent with SCAQMD's Final Localized Significance Threshold Methodology Document, the appropriate localized significance thresholds for the Project were established in Table 3.3-2. The values in Table 3.3-2 correspond to a 2-acre site with a minimum receptor distance of 82 feet located in Source Receptor Area (SRA) 24. While the Project area is approximately 13 acres, the daily disturbance area would be 2 acres (ERP 2023).

As shown in Table 3.3-5, the Project's on-site construction emissions would not exceed the SCAQMD's localized significance thresholds for construction. During operations, mobile sources are the only source of emissions so operational LST values would not apply to the Project (ERP 2023).

Table 3.3-5. Project Construction-Period Localized Emissions Estimates

	Maximum Daily Emissions (lb/day)			
Phase	NO_X	CO	PM_{10}[a]	$PM_{2.5}$[a]
Clearing and Grubbing	13	14	3.4	1.5
Asphalt Demolition	12	11	6.8	1.9
Roadway Excavation	27	26	4.6	2.1
Imported Borrow	19	19	4.7	1.1
Utility Construction	8	10	1.4	<1
Flatwork	2	4	1.4	<1
Aggregate Base	7	9	1.8	<1
Asphalt Paving	6	7	1.6	<1
Maximum Daily Emissions	**27**	**26**	**6.8**	**2.1**
SCAQMD Significance Threshold	170	883	7	4
Exceeds Threshold?	No	No	No	No

Source: ERP 2023

Notes:
SCAQMD=South Coast Air Quality Management District; lb/day=pounds per day; CO = carbon monoxide; NO_X = nitrogen oxide; $PM_{2.5}$ = fine particulate matter; PM_{10} = suspended particulate matter.

[a] Particulate matter values include exhaust and fugitive dust emissions.

CO Analysis

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. CO hot spots at roadway intersections are typically found in areas with significant traffic congestion. A comparative analysis was conducted in the AQR using intersection counts from the Supplemental TIA Memorandum and SCAQMD's 2003 AQMP, which is the most recent AQMP addressing CO concentrations. The 2003 AQMP's busiest intersection had a traffic volume of 100,000 vehicles/day and was found to be below the 1-hour and 8-hour CO standards of 20 ppm and 9 ppm, respectively. The Project's highest traffic volume of 15,610 vehicles/day occurs at the intersection of Wood Road and Markham Street (ERP 2023). As this volume is well below the 100,000 vehicles/day evaluated in the 2003 AQMP, the Project would not exceed any CO standard and no detailed CO hot spots analysis is required for the Project. The Project would not result in long-term impacts related to CO hot spots and would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded.

PM Analysis

A PM hot spot is a localized concentration of PM that is above the state or national 24-hour or annual ambient air standards for that pollutant. PM hotspots can occur in areas with significant volumes of diesel truck traffic. The Project would not contribute to a significant number of or significant increase in diesel vehicles. Implementation of the Project would improve traffic circulation systems within the Woodcrest community. As evaluated in the AQR, the Project would be below the localized emissions thresholds for PM_{10} or $PM_{2.5}$ (Table 3.3-5) and does not meet the criteria for a detailed PM_{10} or $PM_{2.5}$ hot spot analysis (ERP 2023). The Project would not result in long-term impacts related to PM hot spots and would not contribute a significant level of PM such that localized air quality and human health would be substantially degraded.

Therefore, after evaluation of localized emissions and potential CO and PM hot spots, the Project would not expose nearby sensitive receptors to substantial pollutant concentrations. Impacts are considered less than significant.

d) **Less Than Significant Impact**. According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The Project includes roadway improvements and does not include any of these uses.

During construction of the Project, exhaust from equipment and mobile sources, application of coatings for roadway striping, and asphalt paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. The Project would use coatings compliant with SCAQMD Rule 1113, which would limit the odors associated with off-gassing from those coatings. Odors associated with asphalt paving would only occur for a limited time period for the Project (approximately 10 days), and the locations of paving activities would be distributed along the Project area. Additionally, material deliveries and heavy-duty haul truck trips could occasionally produce odors from diesel exhaust. These odors would not affect a substantial number of people, construction activities would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source (ERP 2023). Overall, odors associated with Project construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people. Further, as shown in Table 3.3-3 and Table 3.3-4, the Project would not result in any other emissions (CO, SOx) affecting a substantial amount of people. Impacts are considered less than significant.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.4 Biological Resources

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Source(s):

This section is based on the Determination of Biologically Equivalent or Superior Preservation Report (DBESP) (HDR 2024a) and Biological Resources Technical Report (HDR 2024b).

Regulatory Setting:

Federal and State Special-Status Species:

Under Section 7 of the Federal Endangered Species Act (FESA), federal agencies are required to consult with the USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

California enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. The CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. Species listed under FESA and CESA that require a Biological Opinion under Section 7 may also need a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Under the Migratory Bird Treaty Act (MBTA), the killing, possessing, or trading of migratory birds is prohibited unless exempt by regulations prescribed by the Secretary of the Interior. The MBTA prohibits the possession of protected bird species and their nests, regardless of whether nests are active.

Birds of prey, such as owls and hawks, are protected in California under provisions of the State Fish and Game Code, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Jurisdictional Aquatic Resources

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The following are important CWA sections related to wetland and riparian habitat:

- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the state that the discharge will comply with other provisions of the act.
- Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the USACE with oversight by the United States Environmental Protection Agency.

CDFW regulates water resources under Sections 1600 et seq. of the California Fish and Game Code and has the authority to grant Streambed Alteration Agreements under Section 1602. CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated or to the limit of the adjacent riparian habitat located contiguous to the watercourse if the stream or lake is vegetated.

Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP) Covered Species

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

The Western Riverside County MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of FESA, as well as the Natural Communities Conservation Plan under the State of California Natural Community Conservation Planning Act (Fish and Game Code Section 2800). USFWS issued a Biological Opinion (USFWS 2004) for the Western Riverside County MSHCP on June 22, 2004, and issued an amendment to the Biological Opinion on September 22, 2011. CDFW also issued the Natural Communities Conservation Plan Approval and Take Authorization for the Western Riverside County MSHCP on June 22, 2004.

Environmental Setting:

A Biological Study Area (BSA) was used to determine potential impacts on biological resources that includes the Project area and a 150-foot buffer. The aquatic resources delineation area (ARDA), used to determine potential impacts on jurisdictional aquatic resources in and adjacent to the Project area, includes the Project area and a 50-foot buffer. The BUOW and riparian birds survey area include the Project area and a 500-foot buffer. The BSA, ARDA, and BUOW and riparian birds survey area are depicted on Figure 3.4-1.

Portions of the BSA and surrounding areas are developed, while other portions remain natural with native vegetation and feature natural drainages, such as a large portion of Mockingbird Canyon Creek. The BSA consists of rural residential development and surrounding open space. Because of this setting, while the BSA supports native vegetation communities and wildlife, most of the biological resources have been modified to support residences and supporting infrastructure.

Vegetation Communities: Acreages of vegetation communities and other land cover types in the BSA are provided in Table 3.4-1 and depicted in Figure 3.4-2 (Sheets 1 through 3).

Table 3.4-1. Vegetation Communities and Other Land Cover Types in the Biological Study Area

Vegetation Community or Other Land Cover Type	Acres
Tree-dominated habitats	
Black willow woodland*	**5.69**
Ornamental riparian woodland	**0.30**
Shrub-dominated habitats	
California buckwheat scrub	**5.50**
Blue elderberry shrubland	**0.92**
Mule fat thickets	**0.57**
Herbaceous-dominated habitats	
Cattail marsh	**0.17**
Cocklebur patches	**0.08**
Perennial pepperweed patches	**2.66**
Giant reed marsh	**0.19**
Mediterranean California naturalized annual and perennial grassland	**13.12**
Other land cover types	
Developed/Disturbed/Bare Ground	**15.71**
Orchard/Agricultural	**2.59**
Residential	**20.41**
Total[a]	**67.93**

Notes:
[a] Totals may differ due to rounding.
* Indicates a CDFW Sensitive Natural Community

Special Status Vegetation Communities: Black willow woodland is designated as an S3 state rarity rank[1]. Additionally, riparian vegetation communities, which are associated with streambeds, wetlands, and adjacent riparian areas, are also considered special-status by CDFW regardless of their state rarity ranking and are regulated pursuant to Section 1600, et seq. of the California Fish and Game Code. Riparian communities mapped within the BSA include black willow woodland, mule fat thickets, cattail marsh, ornamental riparian woodland, perennial pepperweed patches, and giant reed marsh. Ornamental riparian woodland consists of many non-native ornamental species and is not considered special-status other than for purposes of inclusion as riparian habitat within CDFW jurisdiction. Likewise, perennial pepperweed patches and giant reed marshes are dominated by non-native invasive species and are not considered special-status other than for purposes of inclusion as riparian habitat within CDFW jurisdiction.

[1] S3 state rarity ranking corresponds to a vegetation community that is vulnerable and at moderate risk of extinction or elimination due to a restricted range, relatively few populations or occurrences, recent and widespread declines, or other factors.

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Figure 3.4-1. Biological Study Area, Aquatic Resources Delineation Area, and BUOW and Riparian Birds Survey Area

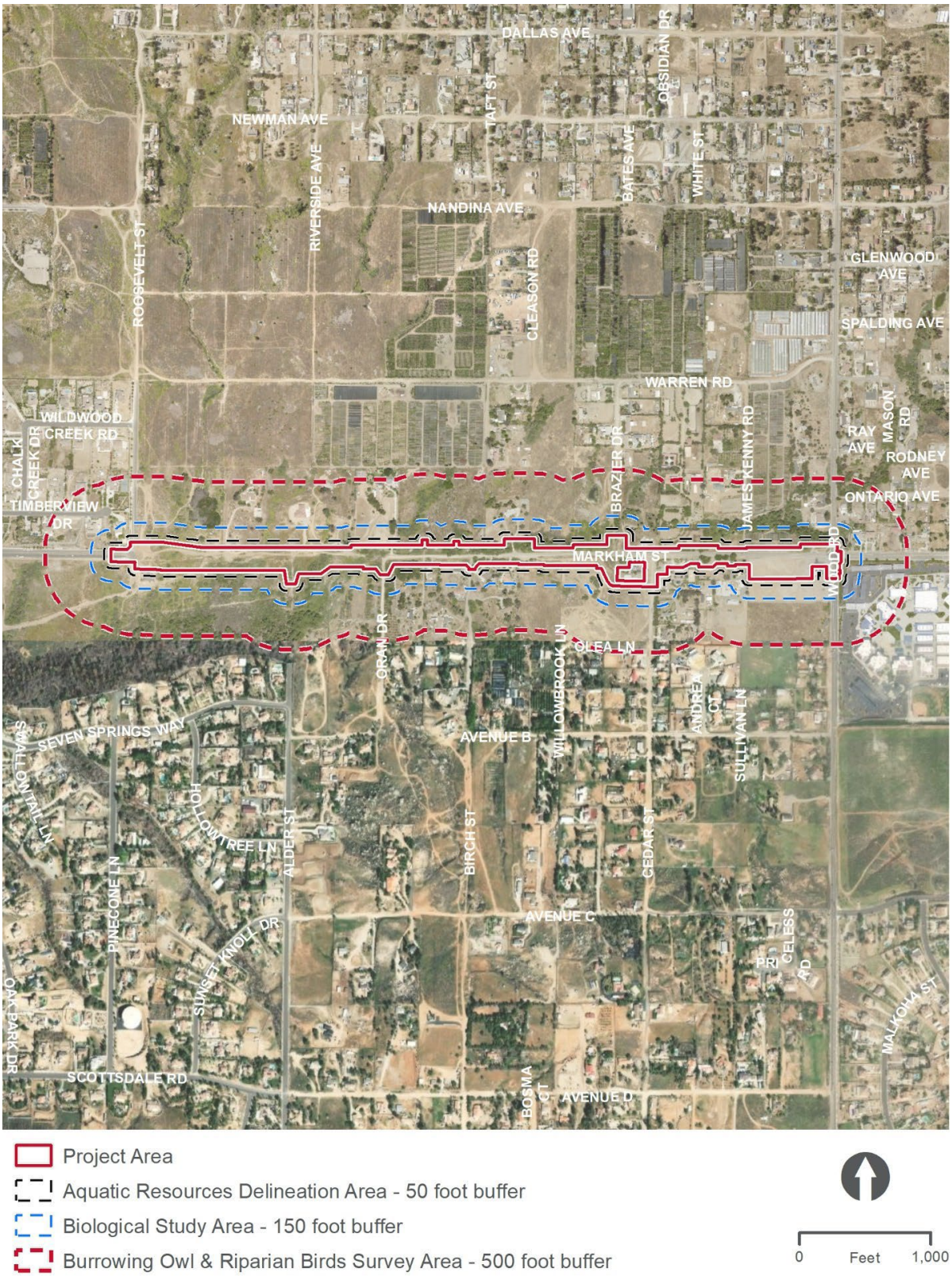

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Figure 3.4-2. Vegetation Communities and Other Land Cover Types in the Biological Study Area (Sheet 1 of 3)

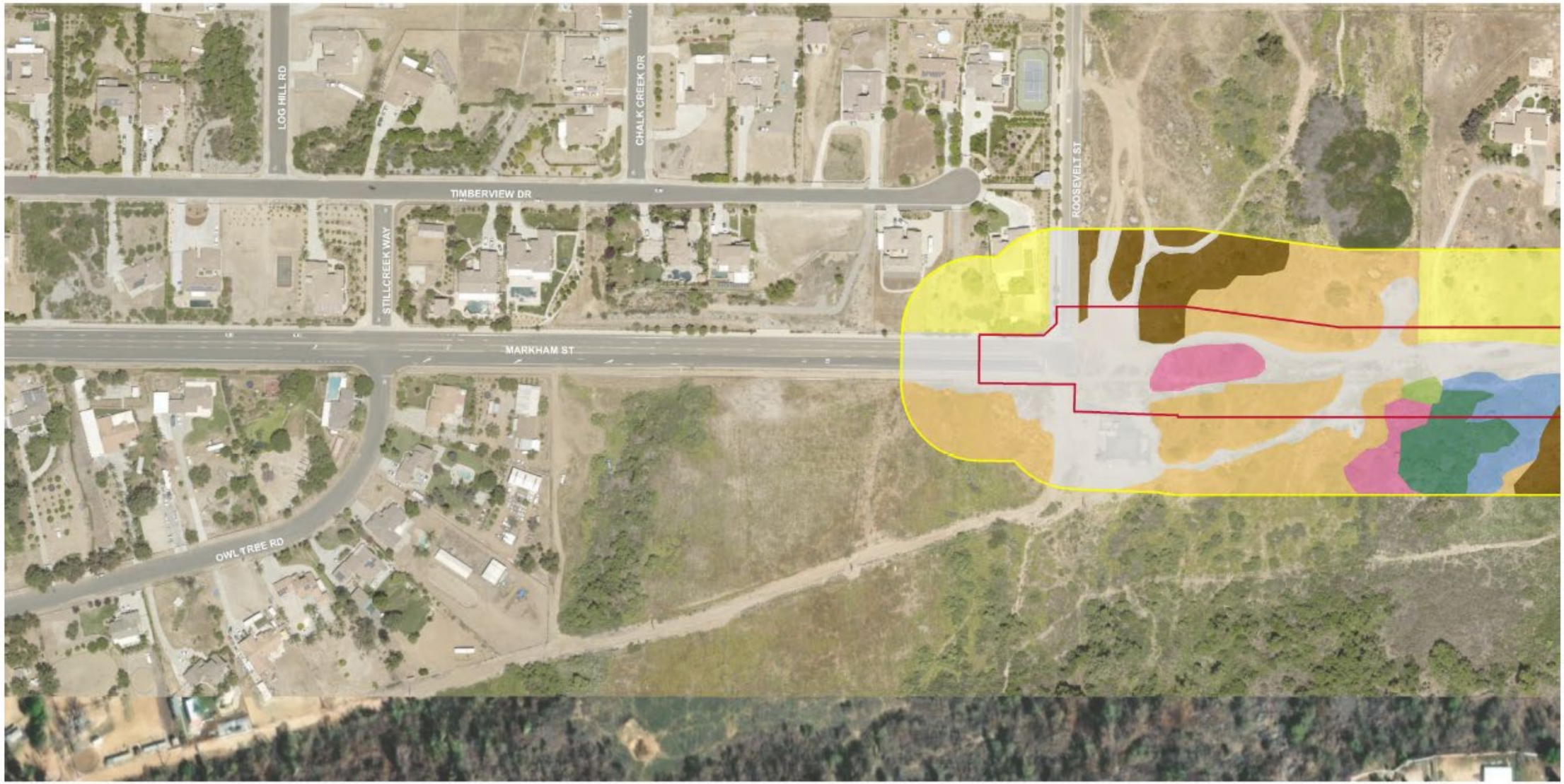

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Figure 3.4-2. Vegetation Communities and Other Land Cover Types in the Biological Study Area (Sheet 2 of 3)

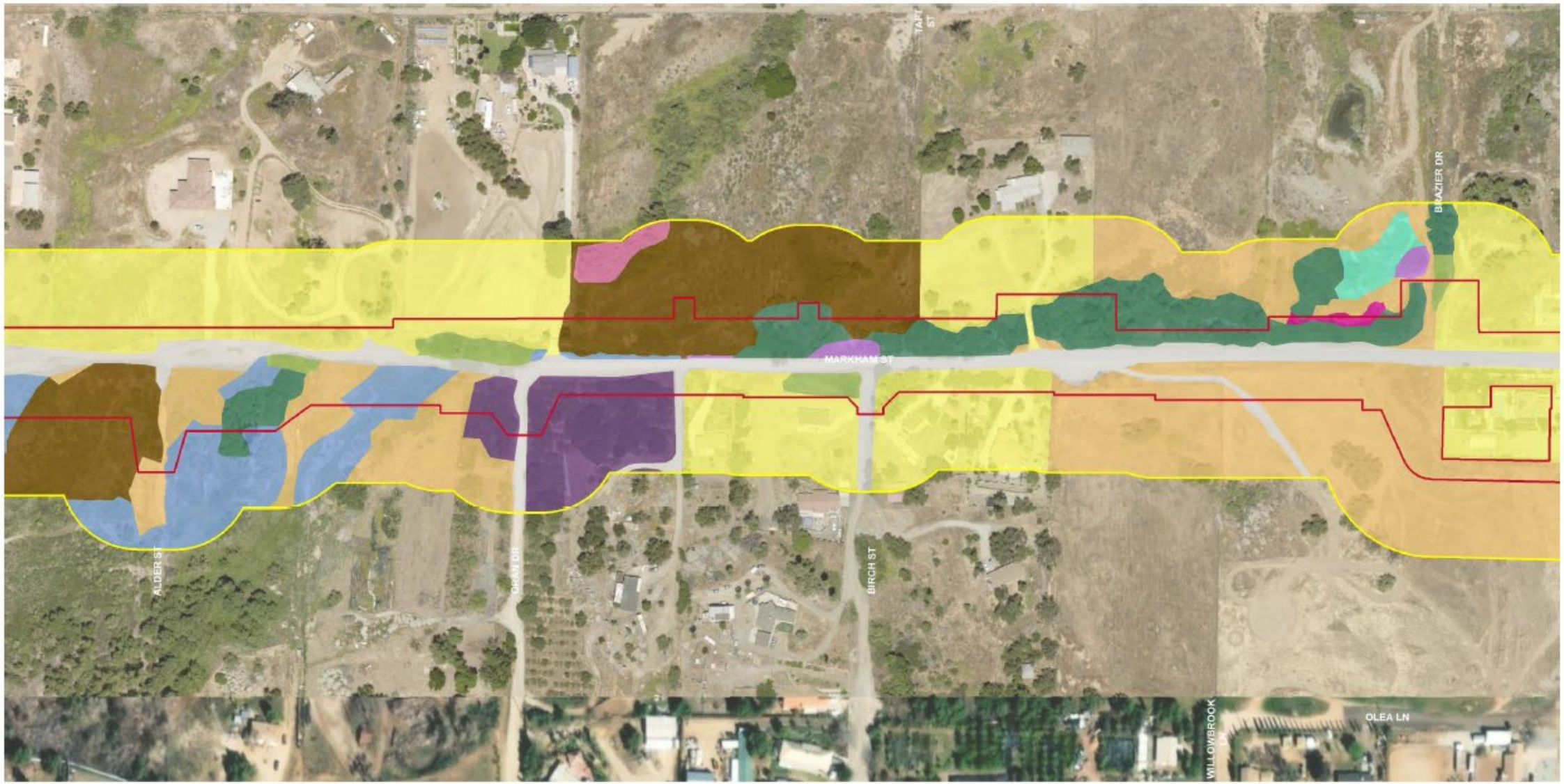

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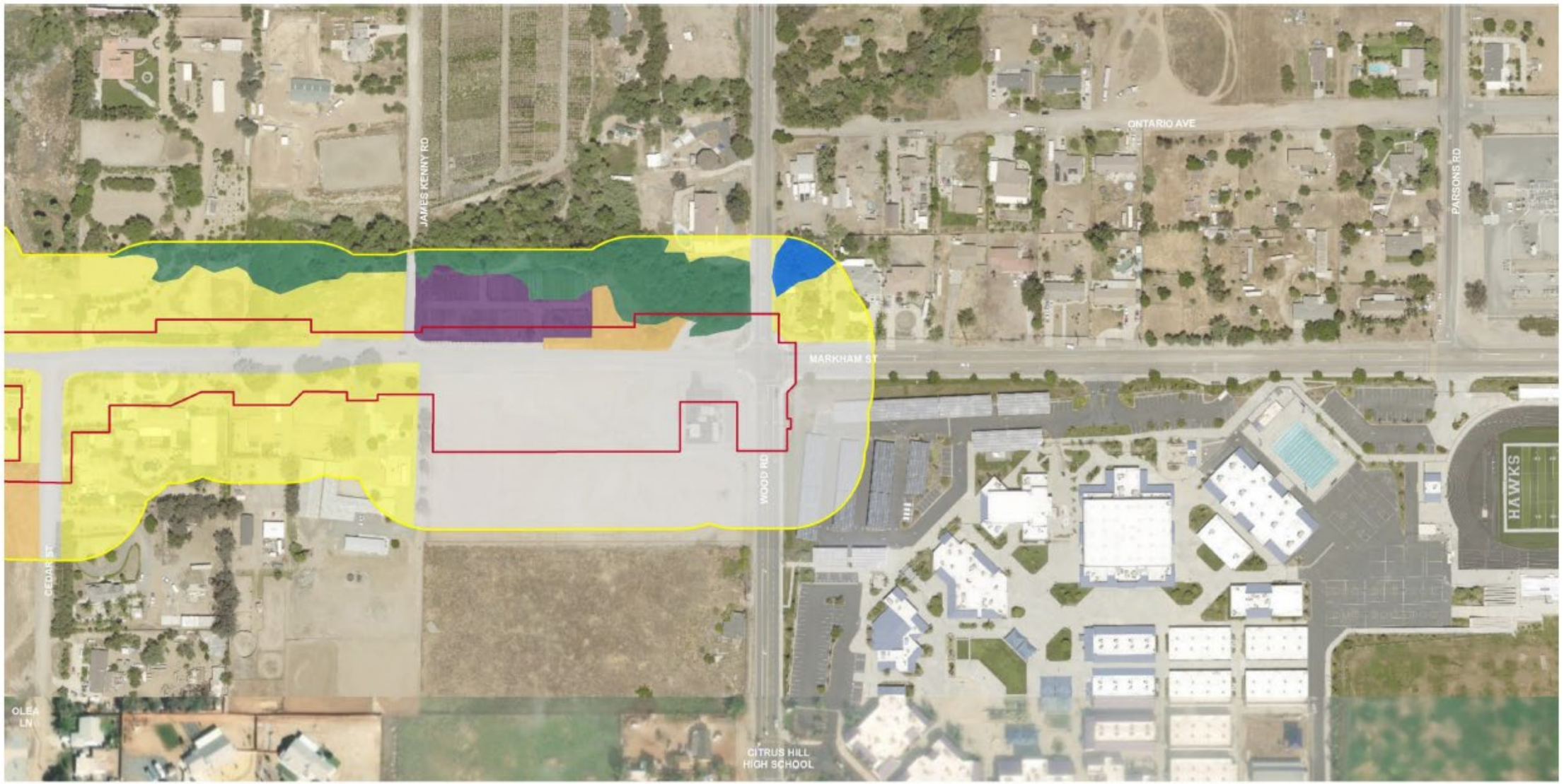
Figure 3.4-2. Vegetation Communities and Other Land Cover Types in the Biological Study Area (Sheet 3 of 3)



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Special Status Plant Species: The BSA contains suitable habitat to support one special-status plant species, smooth tar plant. This species is a Western Riverside County MSHCP Covered Species; however, because the BSA is not located within designated Criteria Area Species Survey Areas (CASSA) or Narrow Endemic Plant Species Survey Areas (NEPSSA) areas, further analysis of this species is not required. Smooth tarplant was not observed during field surveys conducted in 2022.

Special Status Wildlife Species: The BSA supports suitable habitat for the following twenty-one special-status wildlife species:

Invertebrates

- Crotch's bumble bee (*Bombus Crotchii*) – State Candidate Endangered.

Amphibians

- Western spadefoot (*Spea hammondii*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species.

Reptiles

- California glossy snake (*Arizona elegans*) – State Species of Special Concern;
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Red-diamond rattlesnake (*Crotalus ruber*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Western pond turtle (*Emys marmorata*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Blainville's horned lizard (*Phrynosoma blaivillii coronatum*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*) – State Species of Special Concern;
- Two-striped garter snake (*Thamnophis hammondii*) – State Species of Special Concern.

Birds

- Golden eagle (*Aquila chrysaetos*) – State Fully Protected, Western Riverside County MSHCP Covered Species;
- Burrowing owl (*Athene cunicularia*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species (with additional survey requirements);
- White-tailed kite (*Elanus leucurus*) – State Fully Protected, Western Riverside County MSHCP Covered Species;
- Southwestern willow flycatcher (*Empidonax traillii extimus*) – Federal and State Endangered, Western Riverside County MSHCP Covered Species (with additional survey requirements);
- Yellow-breasted chat (*Icteria virens*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Loggerhead shrike (*Lanius ludovicianus*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Least Bell's vireo (*Vireo bellii pusillus*) – Federal and State Endangered, Western Riverside County MSHCP Covered Species (with additional survey requirements);
- Coastal California gnatcatcher (*Polioptila californica californica)* - Federal and State Endangered, Western Riverside County MSHCP Covered Species.

Mammals

- Stephens' kangaroo rat (*Dipodomys stephensi*) – Federal Endangered, State Species of Special Concern, Western Riverside County MSHCP Covered Species;
- Western mastiff bat (*Eumops perotis californicus*) – State Species of Special Concern;
- Western yellow bat (*Lasiurus xanthinus*) – State Species of Special Concern;
- Los Angeles Pocket mouse (*Perognathus longimembris brevinasus*) – State Species of Special Concern, Western Riverside County MSHCP Covered Species.

Ten species warrant further analysis because they are either are covered but have additional survey needs and requirements specified in the Western Riverside County MSHCP that requires analysis of Project impacts (southwestern willow flycatcher, Coastal California gnatcatcher, least Bell's vireo, burrowing owl) or not covered under the Western Riverside County MSHCP (Crotch's bumble bee, California glossy snake, coast patch-nosed snake, two-striped garter snake, Western mastiff bat, and Western yellow bat).

Jurisdictional Aquatic Resources: The ARDA supports wetland and non-wetland waters of the United States subject to jurisdiction of USACE and RWQCB pursuant to Sections 404 and 401 of the CWA, respectively. The BSA also supports streambed and riparian habitat subject to jurisdiction of CDFW pursuant to Section 1600 of the California Fish and Game Code. CDFW-jurisdictional streamed and riparian habitat are also considered Western Riverside County MSHCP Riparian/Riverine habitats.

Wildlife Corridors and Habitat Linkages: The Project is not located within any designated wildlife corridors or habitat linkages, including any Western Riverside County MSHCP Cores or Linkages. However, Mockingbird Canyon Creek serves as a functional wildlife corridor as it provides a geographic connection between inland wildlife habitats upstream and downstream of the BSA and represents an important biological resource within an otherwise highly developed (urbanized) environment.

Impact Analysis:

a) **Less Than Significant with Mitigation Incorporated.**

A summary of Project impacts is provided below for the ten species that require further impact analysis.

Southwestern Willow Flycatcher - The Project would result in permanent impacts to up to 1.59 acres and temporary impacts to 0.35 acre of SWFL foraging habitat. Permanent loss of SWFL foraging habitat within the Project area would result from development of the roadway and construction of the drainage channel north of Markham Street. Because the bottom of this channel would be maintained without vegetation in order to provide sufficient flood control capacity, on-site restoration of riparian woodland habitat within this area is not feasible. Direct impacts to individual SWFL individuals could occur during construction if vegetation is removed while a SWFL is foraging in the habitat. Measures BIO-1 through BIO-5, BIO-10, and DBESP-1 through DBESP-7 would be implemented to reduce potential impacts on SWFL.

Least Bell's Vireo - The Project would result in permanent impacts to up to 1.59 acres and temporary impacts to 0.35 acre of occupied LBV habitat. Permanent loss of LBV habitat within the Project area would result from development of the roadway improvements and construction of the drainage channel north of Markham Street. Because the bottom of this channel would be maintained without vegetation in order to provide sufficient flood control capacity, on-site restoration of riparian woodland habitat within this area will not be feasible. Direct impacts to individual LBV could occur during construction if vegetation supporting an active nest is removed. If LBV occupy suitable habitat adjacent to direct impact areas, within the 500-foot Riparian Birds buffer, temporarily increased noise and activity levels could result in indirect impacts on nesting and foraging activities. Measures BIO-1 through BIO-5, BIO-10, BIO-11, and DBESP-1 through DBESP-7 would be implemented to reduce potential impacts on LBV.

Based on the Determination of Biologically Equivalent or Superior Preservation (DBESP) prepared for the Project, to meet the criteria of a biologically equivalent or superior alternative, compensatory mitigation for permanent impacts to least Bell's vireo nesting habitat, as specified in Measure DBESP-5 will be provided at a ratio of 2:1 for permanent loss, which would also account for temporal loss of least Bell's vireo nesting habitat while mitigation habitat is being established. A minimum of 3.53 acres of the 4.52 acres of mitigation habitat discussed below under Subsection B will consist of habitat suitable to support least Bell's vireo, resulting in a 2:1 replacement of least Bell's vireo habitat within the Western Riverside County MSHCP Planning Area.

Coastal California Gnatcatcher - The Project would result in temporary impacts to up to 0.17 acre and permanent impacts to up to 1.19 acres of California buckwheat scrub. Due to the high level of disturbance, and proximity to an active roadway and residential areas, this habitat is of low quality for CAGN nesting, but this species could forage and nest within the Project area. Measures BIO-1 through BIO-5, BIO-12, and BIO-13 would be implemented to reduce potential impacts on nesting CAGN.

Burrowing Owls – The Project would result in temporary impacts to up to 1.21 acres and permanent impacts to up to 3.41 acres of suitable BUOW habitat. BUOW was absent from the BSA at the time of the biological survey; therefore, the Project would not result in loss of any occupied BUOW habitat. Measures BIO-14, DBESP-1 through DBESP-4, and DBESP-8 would be implemented to avoid potential impacts on BUOW that could occupy the Project area prior to construction.

Crotch's Bumble Bee – If Crotch's bumble bee are determined to be present at the time of construction, the Project would result in temporary impacts to up to 0.17 acre and permanent loss of up to 1.19 acres of suitable habitat (California buckwheat scrub) for this species. Because this species is a candidate for listing as a State Endangered species, should this species occur within the BSA an Incidental Take Permit pursuant to Section 2081(b) of the California Fish and Game Code may be required prior to commencement

of Project activities in suitable habitat areas. Should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation, Measure BIO-3, and Measures BIO-7 through BIO-9 would be implemented to reduce potential impacts on Crotch's bumble bee. However, if the Crotch's bumble bee is no longer a candidate for listing or does not become listed under the CESA prior to Project implementation, then Measures BIO-7 through BIO-9 would not be required.

California glossy snake and coast patch-nosed snake - The Project would result in temporary impacts to up to 0.17 acre and permanent impacts to up to 1.19 acres of California buckwheat scrub and temporary impacts to up to 1.04 acres and permanent impacts to up to 2.23 acres of Mediterranean California naturalized annual and perennial grassland suitable for California glossy snake and coast patch-nosed snake. Measures BIO-1 through BIO-5 would be implemented to reduce potential impacts on these species.

Two-striped garter snake, western mastiff bat, and western yellow bat - The Project would result in temporary impacts to up to 0.35 acre and permanent loss to up to 1.59 acres of riparian habitat suitable for two-striped garter snake, western mastiff bat, and western yellow bat. Measures BIO-1 through BIO-5 would be implemented to reduce potential impacts on these species. In addition, Measure BIO-15 would also be implemented to reduce potential impacts to special-status bats that could roost in trees and large shrubs within the Project area.

Impacts are considered less than significant with mitigation incorporated.

b) **Less Than Significant with Mitigation Incorporated**. The Project would result in permanent impacts to 2.26 acres (1.69 acres native riparian, 0.57-acre non-native/invasive), and temporary impacts to 0.44-acre riparian habitat (0.37-acre native riparian, 0.07-acre non-native/invasive) of Western Riverside County MSHCP Section 6.1.2 Riparian/Riverine resources associated with Mockingbird Canyon Creek. Project impacts to black willow woodland within the proposed flood-control channel north of Markham Street are considered permanent; however, hydroseeding and/or planting of the channel banks with native coastal sage scrub species would be implemented to enhance habitat and provide erosion control, per Measure BIO-5. However, the drainage easement channel bottom will remain unvegetated in order to provide sufficient flood control capacity. Measures BIO-1 through BIO-6 and DBESP-5 would be implemented to reduce potential impacts on native and non-native/invasive riparian habitats.

Based on the requirements of Measures BIO-6 and DBESP-5, mitigation for permanent direct impacts on riparian habitat would be provided through permittee-responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be accomplished within the Western Riverside County MSHCP Planning Area. Mitigation for permanent impacts to 2.26 acres of riparian habitat within Mockingbird Canyon Creek would be provided at a ratio of 2:1, totaling 4.52 acres of mitigation. Should changes to Project design occur following approval of this DBESP, the County will confer with the USACE, CDFW, RWQCB, USFWS, and RCA, as needed, to discuss any changes to findings and provide any updates to existing avoidance, minimization, and mitigation measures, as needed, to maintain equivalent or superior preservation.

Impacts are considered less than significant with mitigation incorporated.

c) **Less than Significant Impact with Mitigation Incorporated.** The Project would result in direct temporary impacts to up to 0.01 acre of non-wetland waters of the U.S. subject to USACE and RWQCB jurisdiction and direct permanent impacts to up to 0.12 acre of non-wetland waters of the U.S. No impacts to wetland waters of the U.S. would occur.

The Project would also result in direct temporary impacts to up to 0.37 acre of native riparian habitat and 0.07 acre of non-native/invasive riparian habitat subject to CDFW jurisdiction. Additionally, the Project would result in direct permanent impacts to up to 1.69 acres of native riparian habitat and 0.57 acre of non-native/invasive riparian habitat subject to CDFW jurisdiction.

Measures BIO-1 through BIO-5 and DBESP-1 through DBESP-4 would be implemented to reduce potential impacts on jurisdictional aquatic resources. Measures BIO-6 and DBESP-5 would also be implemented and coordinated with the Western Riverside County Regional Conservation Authority as part of the DBESP approval process and regulatory permitting process with USACE, RWQCB, and CDFW. Based on the type of proposed work, it is anticipated that the Project would be eligible for Section 404 authorization under current Nationwide Permit 14 for Transportation Projects, a Section 401 Water Quality Certification, and a standard Section 1602 Streambed Alteration Agreement

Impacts are considered less than significant with mitigation incorporated.

d) **Less than Significant Impact**. The Project is not located within any designated wildlife corridors or habitat linkages, including any Western Riverside County MSHCP Cores or Linkages. Mockingbird Canyon Creek serves as a functional wildlife corridor; however, the Project would not substantially interfere with wildlife movement. Impacts are considered less than significant.

e) **No Impact.** The Project would comply with the Riverside County Oak Tree Management Guidelines, as no oak trees would be removed or otherwise impacted. Additionally, the Project would comply with the Lake Matthews/Woodcrest Area Plan Policies related to biological resources, and the Environmentally Sensitive Lands, Wetlands, and Floodplain and Riparian Area Management sections of the General Plan Multipurpose Open Space Element. No impact would occur.

f) **No Impact**. The Project area is located within the Western Riverside County MSHCP's BUOW survey area and supports Western Riverside County MSHCP Riparian/Riverine areas that provide suitable nesting habitat for LBV. The Project would comply with the Western Riverside County MSHCP. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

The following avoidance, minimization, and mitigation measures would be implemented as part of the Project to reduce potential impacts related to biological resources.

Avoidance Measures:

BIO-7 **Crotch's Bumble Bee Survey.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. Within one year prior to construction, a habitat assessment for Crotch's bumble bee will be conducted within the Project area and an appropriate survey buffer be established by a qualified biologist with experience surveying for and observing Crotch's bumble bee. If the qualified biologist determines that suitable habitat is present, surveys shall be conducted to determine the presence/absence of Crotch's bumble bee. Surveys shall be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983). Survey results, including negative findings, shall be submitted to the CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. At minimum, a survey report should provide the following: a) A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee; b) Field survey conditions that should include name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched; c) Map(s) showing the location of nests/colonies; and, d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

BIO-8 **Crotch's Bumble Bee Avoidance.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the Crotch's bumble bee survey, the County shall ensure that a plan to fully avoid impacts to Crotch's bumble bee be developed in consultation with a qualified entomologist during final design. The plan shall include effective, specific, enforceable, and feasible measures. An avoidance plan should be submitted to CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. If Crotch's bumble bees are determined to be present within the Project area and it is determined the species will be impacted by Project implementation, appropriate mitigation shall be determined in consultation with CDFW.

BIO-9 **Crotch's Bumble Bee Incidental Take Permit.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the survey (required by Measure BIO-7), and if impacts to Crotch's bumble bee cannot be feasibly avoided during Project construction, the County shall ensure that the designated qualified entomologist coordinate with CDFW to obtain appropriate permit for incidental take of Crotch's bumble bee prior to commencement of Project construction in habitat occupied by Crotch's bumble bee. The incidental take permit would quantify and provide appropriate mitigation for impacts on Crotch's bumble bee habitat. Mitigation for impacts to Crotch's bumble bee habitat would be at a ratio comparable to the Project's level of impacts.

BIO-10 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for SWFL and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

BIO-13 **Coastal California Gnatcatcher Avoidance.** Should nesting CAGN be found on or in the immediate vicinity (approximately 300-feet) of the Project area during surveys conducted in compliance with Measure BIO-11, the qualified biologist shall establish an appropriate buffer to prevent alteration of

nesting CAGN behavior. No construction or clearing shall be conducted within the established buffer until the designated biologist determines that the young have fledged, or the nest is no longer active.

BIO-15 **Bat Roosting Habitat Removal.** Prior to tree removal or trimming, large trees and snags shall be examined by a qualified bat biologist to ensure that no roosting bats are present. If trimming or removal of mature trees and snags is necessary for Project construction, trimming/removal activities should be performed outside of the general bat maternity season, which occurs from March 1st through October 1st, to avoid direct effects to nonvolant (flightless) young that may roost in trees within the study area. If trimming or removal of trees during the general bat maternity season cannot be avoided, a qualified biologist will monitor tree removal unless nighttime surveys conducted within one week of removal indicates no tree-roosting bat activity within the study area.

Palm frond trimming, if necessary, shall be conducted outside the bat maternity season to avoid potential mortality of flightless young. Since western yellow bats and western mastiff bats may be present in untrimmed palm tree fronds, a qualified bat biologist shall be present to monitor frond removal. Dead fronds shall be removed under the guidance of the bat biologist, following the two-day method described below.

DAY 1: Only trim the outermost fronds may be trimmed (no more than 50 percent of the palm fronds) using hand tools or chainsaws only (no dozers, backhoes, cranes, or other heavy equipment, other than to provide access for tree cutters using chainsaws).

DAY 2: The palm tree must be felled. Day 2 activities must occur the day immediately following the Day 1 activities. To accomplish this, work may need to be phased and Day 1/Day 2 steps can be repeated. Should bats emerge during the tree trimming, trimming activities must temporarily cease at the individual tree until bats are no longer actively emerging from the tree.

DBESP-3 During construction, all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the U.S. or CDFW-regulated streambed.

DBESP-4 Prior to construction a SWPPP and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and non-point pollution sources on site during construction. The SWPPP will identify specific best management practices to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard.

DBESP-6 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for SWFL and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

DBESP-7 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

Minimization Measures:

BIO-1 **Project Biologist.** A qualified biologist will oversee compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The Project biologist shall designate areas that need temporary fencing and monitor construction. The biologist shall monitor activities during critical times such as vegetation removal, the installation of BMPs and ESA fencing to protect native species and ensure that all avoidance and minimization measures are properly constructed and followed. The biologist will conduct site visits a minimum of once weekly throughout construction to verify that required biological resources protections are in place.

BIO-2 **Worker Environmental Awareness Program (WEAP).** Prior to construction, the Project biologist shall conduct WEAP training for all Project employees and contractors that will be on site. The training will advise workers of potential impacts to sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where they will remain through the duration of the work. The contractor will be required to provide the County with evidence of the employee training (e.g., sign in sheet or stickers) upon request.

BIO-3 **Environmentally Sensitive Areas (ESAs).** During construction, the Project contractor will minimize Project impacts on riparian and California buckwheat scrub habitat to the fullest extent possible. These areas shall be demarcated as ESAs. No grading or fill activity of any type will be permitted within designated ESAs. Prior to construction, the Project biologist shall ensure that non-impacted native habitat located outside of the Project area is demarcated as ESAs. Prior to construction, exclusionary fencing shall be installed around all ESAs under supervision of the Project biologist. ESA fencing will remain in place throughout the duration of construction. All construction equipment will be operated in a manner to prevent accidental encroachment or damage into ESAs. The biological monitor will conduct at a minimum, once weekly inspections of the ESA fencing to ensure that it is in place and properly maintained throughout the duration of construction. The contractor will be responsible for maintaining the ESA fencing per the biological monitor's direction.

BIO–4 **Equipment Maintenance and Staging.** During construction all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located a minimum of 50 feet away from any drainage areas, so as to prevent runoff of any spills from entering ESAs. Construction personnel will strictly limit their activities to the limits of disturbance and designated staging areas and routes of travel.

BIO–5 **On-site restoration of native habitat.** Temporary impacts to native habitat will be restored in-kind following construction. On-site restoration methodology for riparian habitat will be described in the Restoration Plan for the Project, which will be submitted to the resource agencies and subject to agency approval as part of the regulatory permit applications, prior to Project construction activities. Temporary impacts to non-native riparian habitats would be restored using cuttings from native riparian trees and shrubs within the Project area following construction. On-site restoration areas would be monitored for a period of 5 years following restoration to ensure restoration activities are meeting success criteria identified in the Restoration Plan. Any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site.

BIO-11 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged, or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV

preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

BIO-12 **Nesting Bird Surveys**. Vegetation removal or tree (native or exotic) trimming activities will occur outside of the nesting bird season. Other than for suitable LBV habitat, in the event that vegetation clearing is necessary during the nesting season (i.e., February 15 through August 31), a qualified biologist will conduct a preconstruction survey to determine whether any active bird nests are present. Should nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. This buffer shall be clearly marked in the field, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged, or the nest is no longer active.

BIO-14 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for BUOW will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. Appropriate measures to avoid take of active BUOW nests may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, passive relocation would be conducted by a qualified avian biologist outside of the nesting season, if necessary.

DBESP-1 Prior to construction, a weed abatement program will be developed and implemented to minimize the importation of non-native plant material during and after construction. Eradication strategies from the weed abatement program will be employed during construction activities, should an invasion occur.

DBESP-2 During construction, when work is conducted during the fire season (as identified by the Riverside County Fire Authority) adjacent to any vegetation, the appropriate firefighting equipment (e.g., extinguishers, shovels, and water tankers) will be made available on site during all phases of Project construction to minimize the potential for human-caused wildfires. Shields, protective mats, and/or other fire preventive methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires will advise the construction contractors regarding fire risk from all construction-related activities.

DBESP-8 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for BUOW will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. The qualified biologist shall determine appropriate measures necessary to avoid take of active BUOW nests, which may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, a qualified avian biologist would conduct passive relocation outside of the nesting season, if necessary.

Mitigation Measures:

BIO-6 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat will be mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio of 2:1 for permanent impacts and at a ratio of 1:1 for temporal loss of LBV nesting habitat.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the WRCMSHCP Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the SAWA Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation location, long-term management entity, and mitigation categories will be included in a HMMP that will be prepared for the Project and submitted to regulatory agencies (USFWS, CDFW, USACE, and RWQCB) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that

occur in the on-site habitat being impacted (i.e., mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

DBESP-5 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat (i.e. black willow woodland, mule fat thickets, cattail marsh, cocklebur patches, and perennial pepper weed patches) will be mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio of 2:1 for permanent impacts to riparian habitat. Impacts to riparian habitat will be mitigated for in kind (i.e., impacts to riparian woodland habitat would be mitigated for with riparian woodland; herbaceous riparian habitat would be mitigated for with herbaceous riparian habitat) or with a higher quality habitat. Mitigation for riparian habitat that also supports nesting LBV (i.e., black willow woodland and mule fat thickets) will be mitigated through in-kind replacement and will be required to demonstrate that the replacement habitat supports nesting LBV.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the WRCMSHCP Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the SAWA Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation site location, long-term management entity, and mitigation categories will be included in a Habitat Mitigation and Monitoring Plan (HMMP) that will be prepared for the Project and submitted to regulatory agencies (USFWS, CDFW, USACE, and RWQCB) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that occur in habitat being impacted (i.e., mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

3.5 Cultural

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Source(s):

This section is based on the Phase I Cultural Resource Assessment (PaleoWest 2023).

Regulatory Setting:

California Environmental Quality Act

The Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires the lead agency to assess a project's impact on historical resources (Public Resources Code [PRC] Section 21082, 21083.2 and 21084 and California Code of Regulations [CCR] Title 14, Section 15064.5). The first step in the process is to identify cultural resources that may be impacted by the project and then determine whether the resources are "historically significant."

A historical resource is defined as follows:

a. A resource listed in, or determined eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR)

b. A resource included in a local register of historical resources.

c. A resource identified as significant in a historical resource survey meeting the requirements specified in PRC 5024.1(g)

d. Any resource that the lead agency determines to be historically significant (14 CCR 15064.5[a]).

A cultural resource may be considered historically significant if the resource is 45 years old or older and possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, it must meet any of the following criteria for listing on the CRHR:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2. Is associated with the lives of persons important in our past.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or, has yielded, or may be likely to yield, information important in prehistory or history (PRC 5024.1).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. A resource can also be determined historically significant under CEQA by virtue of being included in a local register of historical resources regardless of CRHR eligibility (see 14 CCR 15064.5[a][2]). CEQA states that if a project will have a significant impact on important cultural resources, deemed "historically significant," then project alternatives and mitigation measures must be considered.

CEQA also applies to effects on archaeological sites that do not meet the criteria for historical resources but do meet the definition of "unique archeological resource" (PRC 21083.2[g]). A unique archaeological resource is an

archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

a. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

b. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.

c. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource is neither a historical resource nor a unique archaeological resource, the project's effects on the resource shall not be considered significant under CEQA (14 CCR 15064.5[c][4]).

Environmental Setting:

As part of the Phase I Cultural Resource Assessment (PaleoWest 2023), a literature review and records search were conducted at the Eastern Information Center (EIC) on March 18, 2022, and included the Project area with an additional one-mile buffer. Additional sources consulted included the National Register of Historic Places, the Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility, and the OHP built Environment Resources Directory. Historical maps and aerials were reviewed for extant structures or features within or immediately adjacent to the Project area that may be 45 years or older. No archaeological or historic built environment resources were identified in the Project area as a result of the record search and archival research. Forty cultural resources have been documented within 1 mile of the Project area. Thirty-three of these resources are archaeological sites dating to the Prehistoric Period, most of which consist of bedrock milling features. The remaining seven cultural resources date to the Historic Period and include a church, single-family residence, foundation remnants with associated refuse, fence posts, and three isolated shotgun shell bases (PaleoWest 2023).

An intensive pedestrian cultural resource survey was conducted in May 2022. During the pedestrian survey, no archaeological resources or historic built environment resources were identified in the Project area (PaleoWest 2023).

Portions of the alignment that could not be accessed for the pedestrian survey contained dense vegetation that limited visual inspection of the ground surface from the edge of the County ROW. Areas that were not surveyed have the potential to contain cultural resources. Furthermore, a geoarchaeological analysis indicates that portions of the Project area characterized by floodplain deposits have a moderate sensitivity for containing buried archaeological remains.

Impact Analysis:

a) **Less Than Significant Impact.** No cultural resources that meet the regulatory definition of historical resources pursuant to 14 CCR 15064.5(a) were identified in the Project area. Although there are two buildings within 1 mile of the Project area, the Project would result in no direct impacts on historic built-environment resources and little to no potential to visually impact nearby historic built-environment resources due to the lack of vertical components (PaleoWest 2023). Therefore, the Project would not cause a substantial adverse change in the significance of a historic resource. Impacts are considered less than significant.

b) **Less Than Significant Impact with Mitigation Incorporated.** No archaeological resources were identified in the Project area as a result of the record search and intensive pedestrian survey (PaleoWest 2023). However, portions of the alignment that could not be accessed for the pedestrian survey contained dense vegetation that limited visual inspection of the ground surface from the edge of the County ROW. Areas that were not surveyed have the potential to contain cultural resources. Furthermore, a geoarchaeological analysis indicates that portions of the Project area characterized by floodplain deposits have a moderate sensitivity for containing buried archaeological remains. Therefore, ground-disturbing construction activities have the potential to impact undiscovered archaeological resources.

Measures ARC-1 through ARC-4 would be implemented to reduce potential impacts to archaeological resources in the event of a discovery during construction. Impacts are considered less than significant with mitigation incorporated.

c) **Less Than Significant Impact with Mitigation Incorporated.** There are no known human burial grounds within or near the Project area and there is a low potential for human remains to be encountered during construction. Measure ARC-3 includes steps for compliance with applicable State laws in the unlikely event that human remains are discovered during ground-disturbing construction activities. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measures:

The following mitigation measures would be implemented as part of the Project to reduce potential impacts related to cultural resources.

ARC-1 County appointed archaeological and tribal monitors will be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed. Participating tribes will rotate their schedule so that one tribal monitor at a time is on the Project site during any excavation.

Prior to commencement of construction, there will be a meeting in which the construction staff, tribal monitor(s), archaeological monitor/consultant, and Resident Engineer (RE) will conduct preconstruction archaeological resource sensitivity and awareness training. This meeting will also discuss the monitoring and safety requirements. It is critical that all parties understand the methods and goals as well as the protocols for the inadvertent discovery of archaeological resources, tribal resources, and/or human remains during construction. Record of this meeting shall be placed in the RE file.

The archaeological monitor, in coordination with the tribal monitor, shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow for identification, evaluation, and potential recovery of cultural resources. Should buried cultural deposits be encountered, the archaeological monitor shall contact the County Archaeologist immediately, and in coordination with the THPOs of consulting tribes, will evaluate the resource and formulate a plan to move forward.

ARC-2 If archaeological and/or tribal resources are encountered during construction, the archaeological monitor, in coordination with the tribal monitor shall:

- Halt all work within a 60-foot radius and shall immediately inform the RE.
- Following notification, the archaeological monitor, in coordination with the tribal monitor, will make a preliminary assessment of the discovery to determine whether the find is an isolated artifact or recent deposit. If the find is determined to be isolated or recent, construction will be allowed to resume.
- Should the monitor(s) determine the discovery is potentially significant, the monitor(s) shall contact the County Archaeologist immediately to evaluate the discovery and if necessary, formulate appropriate mitigation measures.
- If the discovery contains tribal resources, all consulting tribes shall be contacted and informed of the discovery. The tribal resource discovery, including human remains, shall not be disturbed (i.e., photographed, videoed, or moved) until the County Archaeologist and consulting tribes have agreed upon appropriate treatment measures.

If archaeological and/or tribal resources are encountered anywhere during Project construction when no monitor(s) are present, work in the area must halt within a 60-foot radius until the monitor(s) can evaluate the nature and significance of the find and formulate appropriate evaluation and/or mitigation measures.

Once the agreed upon treatment measures have been implemented, construction activity can resume in that area.

ARC-3 In the event that human remains are discovered during construction at any time, the following provisions shall apply:

- State Health and Safety Code Section 7050.5 states that no further disturbance and all construction activity shall immediately be halted within 60 feet of the discovery until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American and not under the coroner's jurisdiction, within 24 hours the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). During this time all remains, associated soils, and artifacts will remain in situ, and shall be protected from public viewing. The County will take appropriate measures to protect the discovery site from disturbance during any negotiations. This may include restricting access to the discovery site and the need to hire 24-hour security. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Work will be suspended within a 60-foot radius of the human remains until the MLD's recommendations are implemented.

- A meeting shall be convened between the County Archaeologist, archaeological monitor, and the MLD to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the discovery. Resource evaluations shall be limited to non-destructive analysis.
- Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.
- The County Archaeologist will work with the MLD in regard to the treatment of the remains and all associated funerary objects and will ensure that any identified human remains will be secured while they are left in place and while treatment decisions are in progress. Information concerning the discovery shall not be disclosed pursuant to the specific exemption set forth in California Government Code Section 6254.5(e).
- The County shall relinquish ownership of all tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW through one or more of the following methods and provide evidence of same:

a. A pre-determined reburial area will be determined prior to construction. This shall include measures and provisions to protect the future pre-determined reburial area within the Project property from any future impacts. The measures for reburial shall be culturally appropriate as determined through consultation with the consulting tribes and include, at least, the following:

   i. Measures to protect the reburial area from any future impacts in perpetuity.

   ii. Reburial shall not occur until all required cataloguing (including a complete photographic record) and analysis have been completed on the cultural resources, with the exception that sacred and ceremonial items, burial goods, and Native American human remains are excluded. No cataloguing, analysis, or other studies may occur on human remains, grave goods, and sacred and ceremonial items. Any reburial processes shall be culturally appropriate and approved by the consulting tribes.

   iii. Listing of contents and location of the reburial shall be confidential and not subject to a Public Records Request.

   iv. The County shall establish a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

b. Should reburial of collected cultural items be preferred, it shall not occur until after the Archaeological Resources Monitoring Report/Data Recovery Report has been submitted to the County. Should curation be preferred, the County is responsible for all costs and the repository and curation method shall be described in the Archaeological Resources Monitoring Report/Data Recovery Report.

c. Tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW that are to be reburied are to be kept safe on site on a locked and secure location within the RE's office (if feasible) until disposition of such tribal resources takes place for reburial.

- Artifacts found outside the County ROW are not subject to these requirements and are to be relinquished to the consulting tribes by the property owner for suitable curation or ownership. It is the responsibility of the consulting tribes to come to agreement with the property owner.

In the event that the County Archaeologist and MLD are in disagreement regarding the disposition of the remains, State law will apply, and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

ARC-4 Should additional actions be proposed outside the currently defined Project area that have the potential for additional subsurface disturbance, further cultural resource management may be required.

3.6 Energy

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Source(s):

This section is based on the County of Riverside Climate Action Plan (CAP) (County of Riverside 2019b) and the Western Riverside Council of Governments (WRCOG) Subregional CAP (WRCOG 2014)

Regulatory Setting:

CEQA Guidelines section 15126.2(b), Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

The County CAP identifies how the County will comply with California and local energy and greenhouse gas (GHG) reduction policies. The plan lists energy related measures that the County can incorporate into existing residential and non-residential buildings or new development projects to achieve a State-aligned GHG emissions reduction target. The CAP includes R2-T2 Transportation Measures to reduce transportation-related emissions, including provisions for alternative transportation options to enhance non-motorized transportation options and energy efficient enhancements for existing and new transportation infrastructure.

Environmental Setting:

There are generally two types of energy consumption – direct and indirect. Direct energy is the energy consumed by vehicles using the Project. Indirect energy is the one-time energy consumption for construction and the energy needed to maintain the facility.

Impact Analysis:

a) **Less Than Significant Impact.** Project construction activities include site preparation, clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Existing overhead electrical lines and associated poles in the Project area would also be reconstructed to the proposed grade. Lighting and electronic equipment during construction would necessitate electrical power. Water consumption during construction would indirectly consume electricity. On- and off-road construction equipment would include gasoline and diesel consumption. However, electrical and fuel consumption during the construction phase would be temporary in nature and would not cause wasteful, inefficient, or unnecessary consumption of energy resources, and would not significantly affect local and regional energy supplies. Once implemented, the Project would facilitate a new roadway connection with a new bike lane to provide for non-motorized connectivity through the Project area that currently does not exist. No new building structures are proposed that would cause wasteful, inefficient, or unnecessary consumption of energy resources, or affect local and regional energy supplies. Impacts are considered less than significant.

b) **No Impact.** The Project is a roadway improvement project with no building structures that would be subject to the goals and policies of renewable energy or energy efficiency of the County of Riverside's General Plan (County of Riverside 2019b). No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.7 Geology and Soils

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Sources:

This section is based on the County General Plan, Chapter 6 Safety Element (County of Riverside 2021d), Lake Mathews/Woodcrest Area Plan (County of Riverside 2021c), Drainage Report (HDR 2024c), Paleontological Resource Technical Report (PaleoWest 2022), Biological Resources Technical Report (January 2024), and the California Department of Conservation's Earthquake Hazards Zone Application (California Department of Conservation 2022).

Regulatory Setting:

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates the development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture along known active faults. It defines criteria for identifying active faults, giving legal weight to terms such as active, and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones.

Seismic Hazards Mapping Act of 1990

The Seismic Hazards Mapping Act of 1990 is intended to minimize the loss of life and property by identifying and mitigating seismic hazards, such as those associated with strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes. In addition, it requires cities and counties to regulate development within mapped seismic hazard zones.

Environmental Setting:

The Project area is not within an Alquist-Priolo Earthquake Fault Zone. The closest mapped faults are the Elsinore and San Jacinto Faults. Soils within the Project area consist of sandy loam (see Figure 3.7-1).

Impact Analysis:

a) **Less than Significant Impact.** According to the County General Plan, Chapter 6 Safety Element and the Lake Mathews/Woodcrest Area Plan, the project is not within an Alquist-Priolo Earthquake Fault Zone or area with seismic hazards, including areas prone to liquefaction or landslides. The California Department of Conservation's Earthquake Hazards Zone Application indicates that the Project area is not located in a landslide zone (California Department of Conservation 2022). There are, more remote faults, such as the Elsinore and San Jacinto Faults that pose a potential for seismic ground shaking. However, no new buildings or structures would be constructed as part of the project. Impacts are considered less than significant.

b) **Less than Significant Impact.** Site clearing and grubbing, earthmoving activities, and excavation during construction, would result in soil disturbance, rendering surface soil susceptible to erosion. Similarly, compaction of soils by heavy construction machinery may reduce the infiltration capacity of soils exposed during construction and increase runoff and erosion potential. Measure DBESP-4 would be implemented to reduce potential impacts on water quality. During construction, the contractor would be required to comply with all applicable provisions and requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit including preparation and implementation of a Project-specific SWPPP. The SWPPP requires the contractor to implement best management practices (BMPs) and erosion control measures onsite during construction activities. Throughout operation, the proposed drainage infrastructure improvements are designed to maintain existing drainage patterns and reduce potential for impacts from on-site stormwater leaving the site. Drainage patterns would be maintained post-construction by implementation of slope stabilization measures and recontouring of existing embankments. Impacts are considered less than significant.

c) **No Impact**. The Project is in an area that consists of sandy loam which does not tend to expand and shrink when saturated. The potential for soils to become unstable throughout operation is low. No Impact would occur.

d) **No Impact**. Soils within the Project area consist of sandy loam. Sandy soils are generally considered to be non-expansive or have very low expansion potential. Therefore, the Project would not create a substantial direct or indirect risk to life or property. No impact would occur.

e) **No Impact.** The Project would not require the use of septic tanks or other wastewater disposal systems. No impact would occur.

f) **No Impact.** Based on geologic mapping of the Project area, there is one igneous bedrock unit mapped within the Project area consisting of quartz diorite. Quartz diorite is an intrusive (plutonic) igneous rock formed by cooling magma in the Earth's subsurface. The extremely high temperatures present during subsurface magma cooling prevent the preservation of fossils. Therefore, plutonic igneous rocks have no paleontological sensitivity (PaleoWest 2022).

In addition, the County's paleontological sensitivity map indicates that the entirety of the Project area has a low sensitivity, which is based on information from previous field surveys and documentation that

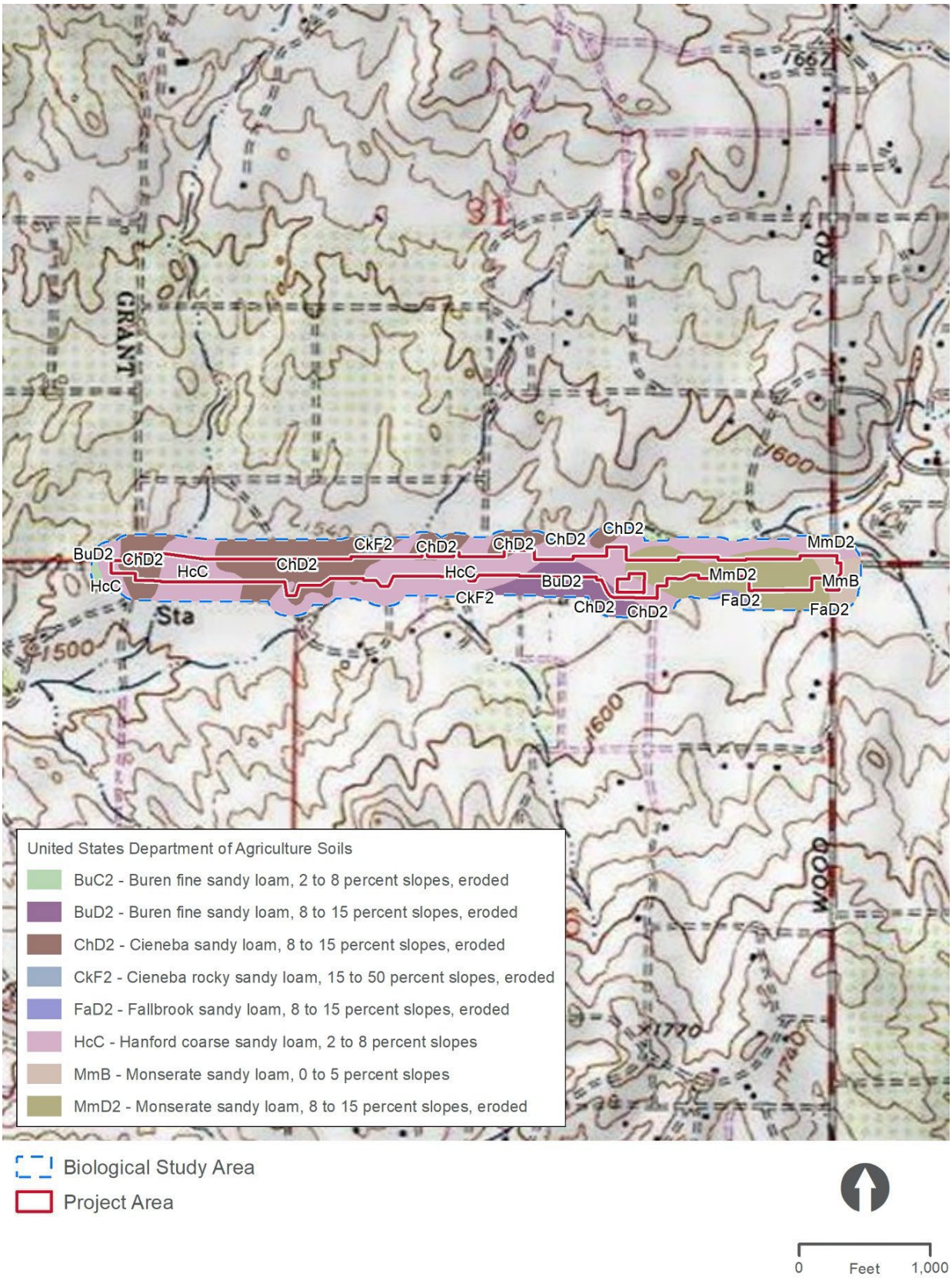
demonstrates low potential for containing paleontological resources subject to adverse impacts (PaleoWest 2022). Further, based on the results of the records search conducted at the Western Science Center on January 20, 2022, that there were no previously recorded fossil localities in their records directly within the Project area or within one mile of the Project area. As such, the entirety of the Project area is considered not sensitive for paleontological resources (PaleoWest 2022). Based on the findings of the *Paleontological Resource Technical Report* (PaleoWest 2022), the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic features. No impact would occur.

Avoidance Measure:

The following avoidance measure would be implemented as part of the Project to reduce potential impacts related to geology and soils.

DBESP-4 Prior to construction a SWPPP and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and non-point pollution sources on site during construction. The SWPPP will identify specific BMPs to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard.

Figure 3.7-1. United States Department of Agriculture Soils Map



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3.8 Greenhouse Gas Emissions

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Source(s):

This section is based on the Air Quality Report (AQR) (ERP 2023) and the Traffic Impact Assessment (TIA) Technical Memorandum (HDR 2022a), and the Supplemental TIA Memorandum (HDR 2022b) that were prepared for the project.

Regulatory Setting:

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate, AB, and Executive Orders (EOs) including, but not limited to, the following:

AB 32 - California Global Warming Solutions Act

California has enacted aggressive GHG reduction targets, starting with AB 32, the California Global Warming Solutions Act of 2006. AB 32 is California's signature climate change legislation. It set the goal of reducing statewide GHG emissions to 1990 levels by 2020 and required the California Air Resources Board (CARB) to develop a scoping plan that describes the approach California will take to achieve that goal and update it every 5 years. In 2015, Governor Jerry Brown enhanced the overall adaptation planning effort with Executive Order B-30-15, establishing an interim GHG reduction goal of 40 percent below 1990 levels by 2030 and required state agencies to factor climate change into all planning and investment decisions.

Senate Bill (SB) 375- Sustainable Communities and Climate Protection Act Gases

SB 375 furthered state climate action goals by mandating coordinated transportation and land use planning through the preparation of Sustainability Communities Strategies (SCS). SB 375 requires the CARB to develop regional GHG emissions reduction targets for passenger vehicles. The CARB establishes 2020 and 2035 targets for each region covered by one of the State's 18 metropolitan planning organizations.

Environmental Setting:

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to GHG emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization in 1988 increased efforts to reduce GHG emissions and advance climate change research and policy. These efforts target emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF6), and various hydrofluorocarbons. CO_2, the most abundant GHG, is a natural component of Earth's atmosphere. However, fossil-fuel combustion has contributed to an additional source of human-generated CO_2.

The primary GHGs that would be emitted by Project-related construction and operations include CO_2, CH_4, and N_2O. Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the global warming potential (GWP) methodology defined in the Intergovernmental Panel on Climate Change (IPCC) reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

CARB prepares an annual GHG inventory to track the state's progress in reducing GHG emissions. In 2019, California emitted a total of 418.2 million metric tons of CO_2e (CARB 2022). According to CARB, the largest contributors were the transportation and industrial sectors, contributing 41 percent and 24 percent of the total annual emissions, respectively.

Impact Analysis

a) **Less Than Significant Impact**. GHG emissions for transportation projects can be divided into those produced during construction and those during operation. According to the AQR, short-term construction emissions would result from material processing, on-site construction equipment, and traffic delays due to construction (ERP 2023). These emissions would be produced at different levels throughout the construction phase. However, their frequency and occurrence could be reduced by implementing better traffic management during construction and using pavement with a longer life. Tables 3.8-1 shows construction-period GHG emissions for the Project, which resulted in approximately 314 metric tons of carbon dioxide equivalents (MTCO2e) over the 6-month construction period.

Table 3.8-1. Summary of Construction Greenhouse Gas Emissions (metric tons per year)

Year	CO_2	CH_4	N_2O	CO_2e
Year 1	308	<0.1	<0.1	314
Total	**308**	**<0.1**	**<0.1**	**314**

Source: ERP 2023

Notes:

CH4 = methane; CO2 = carbon dioxide; CO2e = CO2 equivalent; N2O = nitrous oxide

During operation, GHG emissions would result from mobile sources. As discussed in Section 3.3, Air Quality, operational emissions were evaluated in the AQR for the existing year (2021), opening year (2026), and horizon year (2046). CEQA typically compares the Project to existing conditions, but because vehicle emissions are trending downward from improvements in technology and stricter regulatory standards, both the No Build and existing conditions are presented for comparison with the Build condition (Project). As identified in Table 3.8-2, implementation of the Project would result in similar GHG emissions compared with the No-Build Alternative for the Opening Year (2026) and Horizon Year (2046). This is because the Project would result in a slight reduction in VMT and, as such, would reduce annual GHG emissions relative to the No-Build Alternative.

Table 3.8-2. Summary of Operational Greenhouse Gas Emissions (metric tons per year)

Scenario/Analysis Year	CO_2e	Annual Vehicle Miles Traveled
Existing Year (2021)	18,620	48,620,419
Opening Year (2026)		
No-Build Alternative	18,142	53,327,018
Build Alternative	18,140	53,322,023
Horizon Year (2046)		
No-Build Alternative	22,170	76,214,018
Build Alternative	22,170	76,212,319

Source: Modeling output provided in Appendix B of the AQR. (ERP 2023)

Notes:

Emissions modeled using EMFAC2017.

CO2e = carbon dioxide equivalent

GHG emissions for the Opening Year (2026) would decrease under the Project compared to the Existing Year (2021), resulting in a net GHG reduction of 480 $MTCO_2e$. As demonstrated in the AQR, the highest levels of CO_2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 mph) and speeds of more than 55 mph; the most severe emissions occur from 0–25 mph. As the Project would relieve congestion by enhancing operations and improving travel times in high-congestion travel corridors, GHG emissions, particularly CO_2, would be reduced. In summary, this 480 $MTCO_2e$ reduction during operations plus the 314 $MTCO_2e$ generated during construction, spread across a 30-year operational lifetime, would result in a net annual benefit to GHG emissions by 470 MTCO2e. GHG emissions would increase for the Build Alternative relative to Existing Year (2021) conditions for Horizon Year (2046). The increase in GHG

emissions for the Horizon Year (2046) is driven by the growth in VMT from 2021 to 2046 and would occur regardless of the project. Impacts are considered less than significant.

b) **No Impact.** The County of Riverside General Plan includes an Air Quality Element and Climate Action Plan (CAP) with goals and policies to reduce GHG emissions. The 2019 County of Riverside CAP includes a calculation of the 2030 and 2050 GHG emissions for Riverside County in accordance with the anticipated growth rates in the Riverside County General Plan. The goal of the 2019 County of Riverside CAP is to promote healthier communities, reduce emissions, improve air quality, and protect natural systems. The inventory described within the 2019 County of Riverside CAP is consistent with the emission reduction goals initially set forth in the AB 32 Scoping Plan and updated to support the GHG reduction targets from California's 2017 Climate Change Scoping Plan, which furthers the GHG reduction targets to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In addition to policies found in the 2019 County of Riverside CAP, the Air Quality Element of the Riverside County General Plan includes GHG reduction policies that align with goals and policies identified in the 2019 County of Riverside CAP. The Project would not conflict with the following policies found in the Air Quality Element of the Riverside County General Plan:

- AQ-4.7: To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SCAB, U.S. EPA, and CARB.
- AQ-20.3: Reduce VMT and GHG emissions by improving circulation network efficiency.

The Project area also falls within the jurisdiction of the Western Riverside Council of Governments (WRCOG) Subregional CAP Update, which includes WRCOG member cities, Eastern and Western Municipal Water Districts, Morongo Band of Mission Indians, and unincorporated areas of Riverside County. The WRCOG CAP Update includes a comprehensive update to GHG inventories and GHG emissions reduction strategies for all sectors; establishes GHG targets for the year 2050; and will involve each of WRCOG's member jurisdictions, including those with locally developed CAPs to form a comprehensive subregional CAP incorporating all local CAP strategies. While the County of Riverside did not participate in the most recent 2021 subregional CAP by WRCOG, both the County of Riverside CAP and WRCOG Subregional CAP Update align with state GHG emissions reduction targets. As described in question (a), the Project would have a net benefit to GHG emissions, considering both construction and operational emissions, when comparing the Opening Year (2026) to the Existing Year (2021). Therefore, the Project would not conflict with the 2019 County of Riverside CAP, WRCOG's Subregional CAP Update, or any State or regional plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.9 Hazards and Hazardous Materials

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Source(s):

This section is based on the Phase I Environmental Site Assessment (Phase I ESA) (HDR 2023a) that was prepared for the project. Additional sources include California Fire Hazard Severity Zone Viewer (California Department of Forestry and Fire Protection 2022), and Riverside County General Plan, Safety Element (Riverside County 2021d).

Regulatory Setting:

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and the investigation and mitigation of waste releases, air and water quality, human health, and land use.

California Department of Toxic Substances Control (DTSC)

The DTSC is part of the California Environmental Protection Agency and is responsible for management of the federal hazardous waste program within the State through enforcement of hazardous waste laws and regulations. The DTSC takes enforcement action against violators; oversees cleanup of hazardous wastes on contaminated properties; makes decisions on permit applications from companies that want to store, treat, or dispose of hazardous waste; and protects consumers against toxic ingredients in everyday products.

California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean-up of wastes that are below hazardous waste concentrations but could affect ground and surface water quality. California regulations that address waste management and contamination prevention and clean up include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

County of Riverside Safety Element, Multi-Jurisdictional Local Hazard Mitigation Plan, and Emergency Operations Plan

The County General Plan, Safety Element (Riverside County 2021d) states that wildfire hazard is the highest-priority hazard in the County and is the hazard with the greatest potential for catastrophic loss. A significant portion of the County is undeveloped and consists of rugged topography with highly flammable vegetation. In particular, the hillside terrain of unincorporated Riverside County has a substantial fire risk.

The County has developed a Multi-Jurisdictional Local Hazard Mitigation Plan (County of Riverside 2018) which identifies the County's hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards.

The County's Emergency Operations Plan (County of Riverside 2019a) serves as a reference tool and foundation for coordinating emergencies response and recovery strategies for the County and its operation area, which consists of a combination of the County, all unincorporated areas, all cities, and all political subdivisions within the County's geographic boundaries.

Environmental Setting:

Based on information from the California Fire Hazard Severity Zone (FHSZ) Viewer, the Project area is located within a "moderate" FHSZ within a State Responsibility Area (SRA) and is also adjacent to other "high" and "very high" SRA FHSZ (California Department of Forestry and Fire Protection 2022).

The Phase I ESA identifies recognized environmental conditions (REC) that may adversely affect the Project for its intended use. The Phase I ESA Study Area is defined as the Project area and a 300-foot buffer from the Project area. Sites examined during the reconnaissance, as identified by the EDR database search, are identified in Table 3.9-1 and shown on Figure 3.9-1. Additional sites that may have an indication of a spill or release incident that were observed during the field reconnaissance are identified in Table 3.9-2 and also shown on Figure 3.9-1. Three RECs were identified including polychlorinated biphenyls associated with transformers mounted on utility poles, treated wood waste, and pesticides in soils on historical and existing agricultural land use areas.

Table 3.9-1. Field Reconnaissance of EDR Database Identified Sites

Map ID (EDR Site No.)	Site Name/ Address	Distance/ Direction from Project Area	Site Condition
1 (8)	Oleander Domestic/Irrigation Pump Station 18021 Markham Street Riverside, CA	Within Project Area	This site is a pump station. Hazardous placards and aboveground storage tanks were located onsite. The hazardous placards indicate low flammability materials are onsite.
3 (7)	18345 Markham Street Perris, CA	Within Project Area	This site is a residential property. No outward signs of hazardous substances were seen on the property from the public right-of-way.
4 (10)	New Evolution Construction, Inc. 18780 Markham Street, Riverside, CA	Within Project Area	This site is a residential property. No outward signs of hazardous substances were seen on the property from the public right-of-way.
5 (9)	James Amer18765 Markham Street Riverside, CA	Within Project Area	This site is a residential property. No outward signs of hazardous substances were seen on the property from the public right-of-way.
7 (11)	Marsela 17959 Wood Road Riverside, CA	Within 300 feet/north	Residential property. Two aboveground storage tanks were observed. A utility pole-mounted transformer was seen to the north from the property.
8 (A1, A3)	Markham Sewer Lift Station 18913 Markham Street, Perris, CA	Within Project Area	This site is a sewer lift station. Aboveground storage tanks and oxidizer hazardous placards were located onsite.
9 (A2, A4, A5, A6, 12)	Citrus Hill High School 18150 Wood Road Riverside, CA	Within 300 feet/southeast	This site is a school facility. No outward signs of hazardous substances were seen on the property from the public right-of-way.

Notes:

1 Map ID indicates the site number illustrated on Figure 3.9-1.

Table 3.9-2. Additional Sites Observed during Field Reconnaissance

Map ID[1]	Site Name/Address	Distance/ Direction from Project Area	Site Condition
1A	18121 Markham Street, Perris, CA	Within Project Area	Active agricultural row crops were seen onsite.
2A	18221 Markham Street, Perris, CA	Within Project Area	Agricultural use (orchard) was observed. This is a residential property that was gated and fenced.
3A	Fremontia Horticultural 18900 Markham Street, Riverside, CA	Within Project Area	This site is a nursey. A utility pole-mounted transformer was seen fronting the property.

Notes:

1 Map ID indicates the site number illustrated on Figure 3.9-1.

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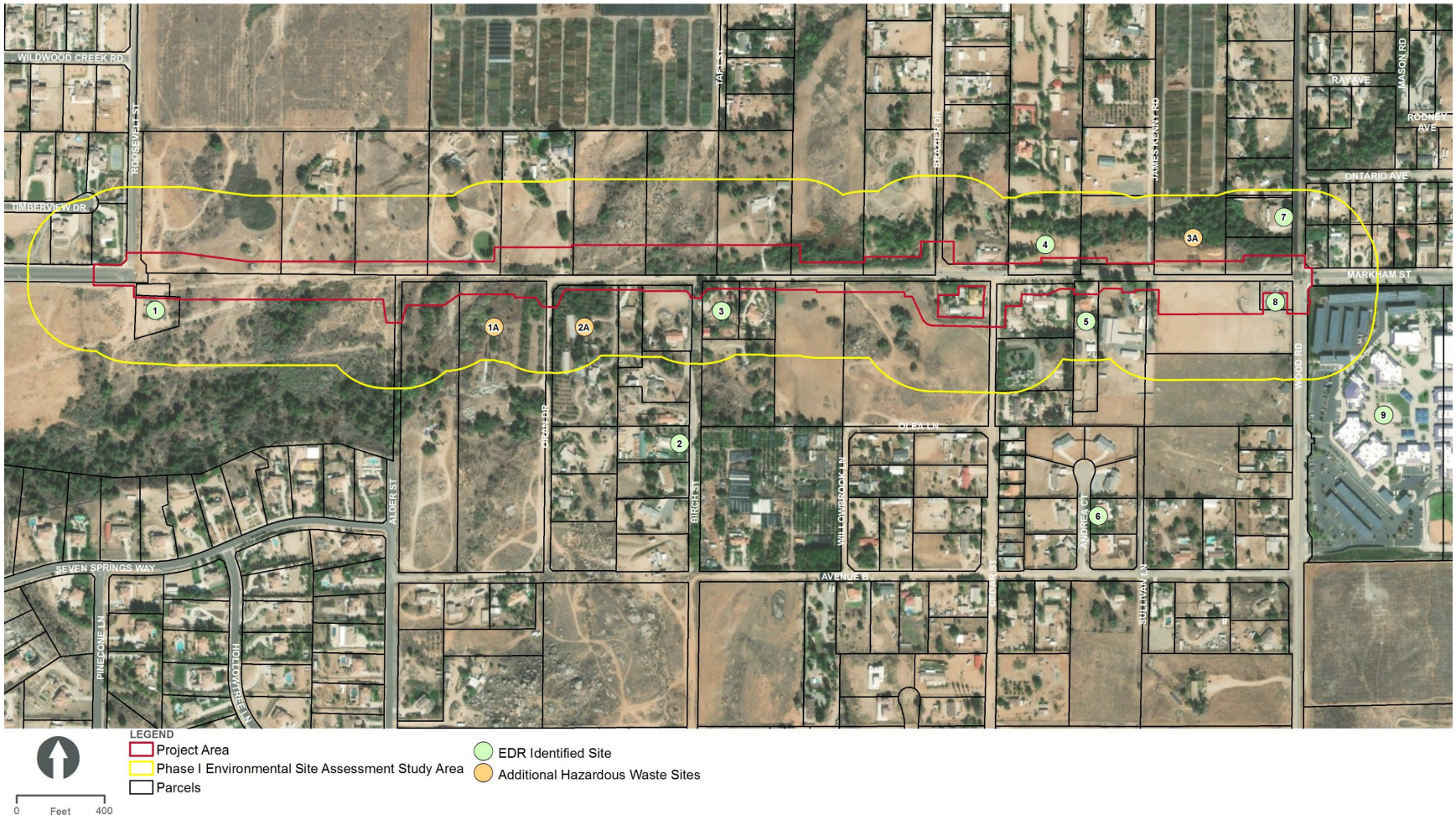
Figure 3.9-1. Hazardous Waste/Materials Site



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Impact Analysis:

a) **Less Than Significant Impact.** Project construction would involve the incidental transport and use of small quantities of common hazardous materials to operate construction equipment, such as oils, lubricants, and fuels, as well as construction materials, such as asphalt and concrete. Hazardous materials would be handled in limited quantities and stored at designated staging areas. Roadway maintenance may require infrequent use of limited amounts of hazardous materials, none of which would be stored at or disposed of in the Project area. Impacts are considered less than significant.

b) **Less Than Significant Impact.** Three RECs occur within 300 feet of the Project area, including transformers mounted on utility poles with potential Polychlorinated Biphenyls in the surrounding soils, wood waste that may have been treated with creosote and pentachlorophenol, and pesticides in soil on historical and existing agricultural land use areas. The presence of a REC alone does not necessarily equate to a significant hazard to the public, but disturbance of these RECs during construction could result in a hazardous material release. Measures HAZ-1 through HAZ-3 would be implemented to reduce potential impacts related to the release of hazardous materials during construction. Impacts are considered less than significant.

c) **Less Than Significant Impact**. Citrus Hill High School is adjacent to the Project area, at the intersection of Markham Street and Wood Road. The Project would result in emissions from construction equipment and vehicles and would require the handling of construction-related hazardous materials and waste such as oil and lubricants within one-quarter mile of Citrus Hill High School. However, construction-related emissions and handling of construction-related hazardous materials and waste would be temporary and cease upon completion of project construction. All handling of hazardous materials and waste would be conducted in accordance with federal, State, and local regulations (see Section 3.3, Air Quality). Impacts are considered less than significant.

d) **No Impact.** The Project is not located on a site included in the Cortese List (Government Code Section 65962.5). No impact would occur.

e) **No Impact.** The project is not located within an airport land use plan. The closest airport is March Air Reserve Base, located approximately 6 miles northeast of the Project area. No impact would occur.

f) **Less Than Significant Impact.** Project-related construction activities may temporarily impact emergency response times. Measure T-1 would be implemented to reduce potential impacts related to emergency response times. Once operational, the Project would not affect the Multi-Jurisdictional Local Hazard Mitigation Plan or County's Emergency Operations Plan. Impacts are considered less than significant.

g) **Less Than Significant Impact.** The Project is in a moderate FHSZ, and construction activities could increase the risk of fire in the Project area due to the use of gasoline and diesel in construction equipment. However, construction equipment would largely be confined to the existing roadway and the construction contractor would comply with Cal/OSHA safety orders regarding fire prevention and protection. The risk of fire ignition that would expose people or structures to a significant risk of loss, injury or death involving wildland fires is low. Impacts are considered less than significant.

Avoidance Measures:

The following avoidance measures would be implemented as part of the Project to reduce potential impacts related to hazards and hazardous materials.

HAZ-1 **Polychlorinated Biphenyls:** Soil sampling for PCBs and heavy metals will be conducted in soil in unpaved locations surrounding utility pole-mounted transformers that would be disturbed as a result of the Project prior to ground disturbing activities for proper management.

HAZ-2 **Treated Wood Waste:** Treated wood objects are handled as treated wood waste and are managed per Chapter 34, Title 22 California Code of Regulations Sections 67386.1 through 67386.12, "Alternative Management Standards for Treated Wood Waste." All treated wood waste should be properly disposed at a landfill permitted to accept treated wood waste. In addition, it could not be determined how long the wooden utility poles had been established and therefore, a potential for elevated levels of arsenic is possible in the soil due to the wood preservatives. Soil in unpaved locations surrounding wooden utility poles that would be disturbed as a result of the Project will be sampled for arsenic and semi volatiles for proper management.

HAZ-3 **Pesticides:** Soil sampling for pesticides will be conducted in soil on historical and existing agricultural land use areas and nurseries that would be disturbed as a result of the Project prior to ground disturbing activities for proper management.

T-1 **Traffic Control Plan (TCP):** During final design, a TCP will be prepared for the Project. The goals of the TCP during Project construction will include minimizing traffic delay or time spent in queue;

maintaining traffic flow throughout the Project area and the surrounding areas; and providing a safe environment for the work force and motoring public.

3.10 Hydrology and Water Quality

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Source(s):

This section is based on the Water Quality Technical Memorandum (HDR 2023b) and Drainage Report (HDR 2024c).

Regulatory Setting:

Federal Clean Water Act

The Clean Water Act (CWA) is the primary Federal statute regulating the protection of the nation's water. The CWA aims to prevent, reduce, and eliminate pollution in the nation's water in order to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters", as described in CWA section 101(a). A stated

goal of the CWA is to eliminate discharge of pollutants into navigable waters, as that term is defined in CWA § 502(7) and corresponding case law. Regulatory responsibilities under the Clean Water Act include:

- preventing water pollution
- obtaining discharge permits
- meeting applicable water quality standards
- developing risk management plans, and
- maintaining records.

Section 404 of the CWA establishes a program for USACE to regulate the discharge of dredge and fill material into Waters of the U.S., including wetlands. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry.

In California, the State Water Resources Control Board (SWRCB) and nine RWQCBs regulate discharge activities into waters 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 to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into Waters of the U.S. unless certification under Section 401 of the CWA is granted or waived by the U.S. EPA, state, or tribe where the discharge would originate. The Project is within the boundaries of the Santa Ana RWQCB (Region 8), which would have the authority to grant, grant with conditions, deny, or waive certification for the Project. Under Section 401, all activities regulated at the federal level by USACE are also regulated at the state level.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act in 1969 provides the legal basis for water quality regulation within California and requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state, as outlined in each basin plan for water quality control prepared by each of the nine RWQCBs of the state. It predates the CWA and regulates discharges to Waters of the State (WOS). WOS are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. Under the Porter Cologne Act, the RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401, provided they meet the definition of WOS, which would require issuance of waste discharge requirements. Mitigation requiring no net loss of wetland functions and values of WOS is typically required by RWQCB.

California Construction General Permit

The State Water Resources Control Board’s Construction General Permit (CGP) regulates storm water discharges from construction sites that result in a Disturbed Soil Area of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the CGP. Operators of regulated construction sites are required to develop SWPPPs; to implement sediment, erosion, and pollution prevention control measures or BMPs; and to obtain coverage under the CGP.

Environmental Setting:

The Project is in the Santa Ana River hydrologic unit’s Middle Santa Ana River hydrologic area and the Riverside-Arlington hydrologic sub-area (801.26). The Project study area consists of three tributary areas within the Santa Ana River Basin watershed, totaling 2,304 acres, the vast majority of which is from offsite drainage. Runoff for these areas collects along Markham Street and drains westerly towards Mockingbird Canyon. The largest of these tributary areas, Drainage Area 2, extends as far north as Krameria Avenue and to Barton Road in the easterly direction. The easterly boundary for Drainage Area 2 and southerly boundary for Drainage Area 3 generally follows the northerly boundary of the Lake Mathews Area Drainage Plan; however, the Project tributary area does not fall within a defined area drainage plan. Drainage Area 1 is located on the westerly end of the Project and collects the tributary runoff between Roosevelt Street and the ridgeline defining Drainage Area 2.

There is currently minimal drainage infrastructure within the Project area, consisting of 5 existing road drainage locations routing flow from the street to the side of the road via curb routing and corrugated metal pipe.

The Western Municipal Water District (WMWD) supplies water to the Project area. The WMWD receives most of its water from the Sacramento-San Joaquin Bay-Delta (State Water Project) and the Colorado River Aqueduct. The district has groundwater supply in the Murrieta Division which is combined with the imported water sources to provide water for the region’s community. Groundwater from the Bunker Hill Basin is also transported into the Riverside Division (WMWD 2023). As previously mentioned, the Project is in the Riverside-Arlington sub-basin. This basin is replenished by several sources including the following: Santa Ana River (infiltration), Rialto-Colton fault (underflow), Chino sub-basin (intermittent underflow), irrigation (return flow), and precipitation (percolation)

(WMWD 2023). There are currently no beneficial uses assigned to the Mockingbird Canyon as this Project is not within a Santa Ana River groundwater management zone (California Water Boards 2019).

The Project is within Riverside County Groundwater Protection Areas 33S03S04W31 and 33S04S04W06 (California Department of Pesticide Regulation 2023a). These areas have runoff concerns with respect to pesticide usage from irrigation of agricultural areas adjacent to the Project area as it has the potential to cause fluctuation of local groundwater levels. These fluctuations can also lead to perched groundwater (California Department of Pesticide Regulation 2023b).

According to the Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (Map Number 06065C1405G, effective date August 28th, 2008), the Project area is classified as Zone X, which is outside of the 500- and 100-year floodplain zone (FEMA 2023).

Impact Analysis:

a) **No Impact.** Measure DBESP-4 would be implemented to reduce potential impacts on water quality. Drainage patterns would be maintained post-construction by implementation of slope stabilization measures and recontouring of existing embankments. The proposed roadway improvements would be designed to meet the post-construction requirements of the Municipal Separate Storm Sewer Systems (MS4) Permit (Order No. R8 2010 033 and NPDES No. CAS618033) and all applicable waste discharge requirements. The Project would not violate any water quality standards, waste discharge requirements, or substantially degrade surface or groundwater quality. No impact would occur.

b) **No Impact.** The Project would not decrease groundwater supplies or interfere substantially with groundwater recharge. The Project would not significantly increase the amount of impermeable surface areas in a way that would substantially inhibit infiltration and recharge of local aquifers. No impact would occur.

ci) **Less than Significant Impact.** During construction, the Project would require grading and excavation that may concentrate runoff and/or redirect existing drainage patterns, potentially resulting in substantial erosion on adjacent properties. If not properly managed, any increases in sediment load from the Project area could lead to alterations in drainage patterns due to accumulations of sediment in downstream areas. Measure DBESP-4 would be implemented to reduce potential impacts related to erosion during construction. Throughout operation, the proposed drainage infrastructure improvements including the nine culverts, one regional channel, and twelve catch basins would be designed to maintain existing drainage patterns and reduce potential for erosion. Impacts are considered less than significant.

cii, iii) **No Impact.** The Project would include the addition of 4.64 acres (202,200 square feet) of impervious surface (HDR 2023a) associated with proposed roadway improvements. As part of the Project, proposed drainage infrastructure improvements would be implemented including nine culverts, one regional channel to facilitate off site drainage, and twelve catch basins to collect and divert on site street flow drainage to the proposed off-site culverts and the regional channel. These improvements are designed to maintain existing drainage patterns and reduce the amount of stormwater leaving the site (HDR 2024c), so that the rate of surface water runoff would not increase or exceed the capacity of the drainage infrastructure. No impact would occur.

civ) **Less than Significant Impact.** The Project area is not in an existing flood zone, and therefore unlikely to experience flood conditions. The project would not impede or redirect flood flows. Impacts are considered less than significant.

d) **No Impact**. The Project is located approximately 55 miles east of the Pacific Ocean and therefore, has no tsunami risk. The nearest large body of water to the Project is Lake Mathews, approximately 5 miles away; therefore, the risk of inundation from a seiche[2] is unlikely. Markham Street is within an area designated Zone "X" (unshaded) on the FEMA Flood Insurance Rate Map, which is outside the 500-year and 100-year floodplain zone. No impact would occur.

e) **No Impact.** The Project is located within the Water Quality Control Plan for the Santa Ana River Basin (California Water Boards 2019). Measure DBESP-4 would be implemented to reduce potential impacts on water quality during construction and the proposed roadway improvements have been designed to minimize the amount of impervious surface area in accordance with applicable requirements of the Municipal Separate Storm Sewer Systems (MS4) Permit (Order No. R8 2010 033 and NPDES No. CAS618033 or subsequent permit). No impact would occur.

[2] A seiche is an oscillation in the water level of a lake or partially enclosed body of water, especially one caused by changes in atmospheric pressure or winds.

Avoidance Measure:

The following avoidance measure would be implemented as part of the Project to reduce potential impacts related to hydrology and water quality.

DBESP-4 Prior to construction a SWPPP and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and non-point pollution sources on site during construction. The SWPPP will identify specific best management practices to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard.

3.11 Land Use and Planning

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Source(s):

This section is based on the Riverside County General Plan, Riverside County General Plan Healthy Communities Element (County of Riverside 2021f), Riverside County General Plan Land Use Element (County of Riverside 2021a), the Riverside County General Plan Circulation Element (County of Riverside 2020), and the Lake Mathews/Woodcrest Area Plan (County of Riverside 2021c).

Regulatory Setting:

The California Government Code (sections 65000-66037) delegates most of the State's local land use and development decisions to cities and counties. Additionally, it establishes specific requirements pertaining to the regulation of land uses by local governments, including general plan requirements, specific plans, subdivisions, and zoning. Pursuant to the CEQA Guidelines, a project's impact related to land use planning is evaluated in terms of compatibility with existing land uses and consistency with local plans and other local land use controls.

Environmental Setting:

The County of Riverside General Plan Land Use Element identifies the Project area as Urban and Built-Up Land (County of Riverside 2021a). The portion of Markham Street in the Project area consists of a rural paved road and a portion of dirt road, designated as a secondary highway in the County General Plan.

Impact Analysis:

a) **No Impact.** The design of the 1.3-mile roadway section for Markham Street between Roosevelt Street and Wood Road accommodates an ultimate secondary highway configuration per the County General Plan Circulation Element with two lanes in each direction; however, the proposed roadway improvements as part of the Project would only include one lane in each direction along the southern half of the ultimate roadway section. The Project also includes Class II bike lanes and a sidewalk on the south side of Markham Street. Most of the Project improvements would occur in existing public ROW and would provide motorized and non-motorized connectivity in this portion of the County where an existing travel path is already present. Therefore, the Project would not physically divide an established community. No impact would occur.

b) **No Impact.** The Project is consistent with the transportation improvements as planned for in the General Plan. Table 3.11-1 demonstrates the Project is consist with applicable policies of the County General Plan. No impact would occur.

Table 3.11-1. Project Consistency with the County of Riverside General Plan

Plan/Policy	Project Consistency
General Plan – Healthy Communities Element	
Policy HC 2.2 – Promote increased physical activity, reduced driving and increased walking, cycling and public transit by: a. Requiring where appropriate the development of compact, development patterns that are pedestrian and bicycle friendly.	Consistent. The Project includes a 5-foot-wide westbound and 6-foot-wide eastbound Class II bike lane along Markham Street. The Project also includes a 6-foot-wide sidewalk along the southern edge of the roadway within the Project area. These improvements would increase opportunities for active transportation in the

b. Increasing opportunities for active transportation (walking and biking) and transit use. c. Encouraging the development of neighborhood grocery stores that provide fresh produce.	community. Further, the pedestrian and bicycle improvements would facilitate access to the bus stops located approximately 900 feet east of the Project area's eastern boundary. Therefore, the Project is consistent with these policies.
Policy HC 3.3 – Where appropriate, require pedestrian-oriented design that encourages the use of bicycles and walking as alternatives to driving and increases levels of physical activity.	
Policy HC 5.5 – When building sidewalks, verify that they are sufficiently wide and clear of obstructions to facilitate pedestrian movement and access for the disabled.	Consistent. The proposed sidewalks would adhere to ADA design requirements. Therefore, the Project is consistent with this policy.
General Plan – Land Use Element	
Policy LU 13.1 – Provide land use arrangements that reduce reliance on the automobile and improve opportunities for pedestrian, bicycle, and transit use in order to minimize congestion and air pollution.	Consistent. See consistency analysis for Policy HC 2.2 above.
General Plan – Circulation Element	
Markham Street's Street Classification is identified as a secondary highway. Secondary highways are intended to serve through traffic along longer routes between major traffic generating areas or to serve property zoned for multiple residential, secondary industrial or commercial uses. Intersections with other streets and highways may be limited to 330-foot intervals. Secondary highways will have four lanes in most situations. These streets generally do not have turn lanes, and additional right-of-way may be required at intersections. These facilities can carry high volumes of traffic.	Consistent. The design of the 1.3-mile roadway section for Markham Street between Roosevelt Street and Wood Road accommodates an ultimate secondary highway configuration per the County General Plan Circulation Element, with two lanes in each direction; however, the proposed roadway improvements as part of the Project would only include one lane in each direction along the southern half of the ultimate roadway section. In the future, the County may elect to construct two additional lanes along the northern portion of the ultimate roadway section.
Lake Mathews/Woodcrest Area Plan – Circulation Element	
LMWAP 8.1 – Design and develop the vehicular roadway system per Figure 7, in accordance with the Functional Classification section and standards specified in the Circulation Element.	Consistent. The proposed roadway improvements are consistent with Figure 7 of the Lake Mathews/Woodcrest Area Plan and Circulation Element, which identifies Markham Street to be a secondary highway

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.12 Mineral Resources

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Source(s):

This section is based on the Riverside County General Plan Multipurpose Open Space Element (County of Riverside 2015).

Regulatory Setting:

The California Surface Mining and Reclamation Act of 1975 provides a comprehensive surface mining and reclamation policy to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. This legislation serves as the primary regulation for surface mining in California, and mandates that aggregate resources be identified, mapped, and classified by the State Geologist.

Environmental Setting:

The Riverside County General Plan's Multipurpose Open Space Element designates areas as Mineral Resource Zones (MRZs). The State Mining and Geology Board uses the MRZs to classify lands that contain valuable mineral deposits. The Mineral Resources Areas Map found in the referenced mineral resources section of the General Plan identifies the Project area as MRZ-3. Areas zoned MRZ-3 indicate that due to insufficient data, the presence and extent of mineral resources are unknown.

Impact Analysis:

a, b) **No Impact.** Although MRZ-3 zones have undetermined mineral resource significance, these areas are not identified as a local-important mineral resource and the potential for viable extraction of mineral resources within this zone is limited due to the City's urbanized character. The Project includes roadway improvements within a semi-rural area of the County and would not utilize or deplete any locally important or valuable mineral resources. No Impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.13 Noise

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Source(s):

This section is based on the Noise and Vibration Study Report (A/E Teach LLC 2023).

Regulatory Setting:

The State of California requires each county and city to adopt a General Plan that includes a Noise Element, which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. CEQA requires baseline versus build analysis to assess whether a project will have a noise impact.

Environmental Setting:

Existing noise-sensitive land uses in the Project area include residential properties along Markham Street and Citrus Hill High School, located at the southeast corner of Markham Street and Wood Road intersection at 18150 Wood Road. Several analysis locations were chosen to measure existing noise levels at representative outdoor locations for noise-sensitive land uses (see Figure 3.13-1).

Short-term (15 minutes in duration) and 24-hour noise measurements were taken at a total of eight representative locations throughout the Project area. Traffic counts were conducted concurrently with the traffic noise measurements at one location (ST06) for use in calibrating the Traffic Noise Model (TNM) files developed for the noise analysis.

Existing noise levels are assessed based on a combination of noise levels measured in the field and modeled noise levels. Worst-hour traffic noise levels in the AM peak traffic hour (Leq[h]) were found to be 43 to 57 dBA at the modeled locations. Existing PM peak-hour noise levels were determined to be between 44 to 57 dBA, and existing CNEL values were found to be between 44 to 58 dBA at the selected noise modeling locations throughout the Project area.

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Figure 3.13-1. Noise Measurement Locations (Sheet 1 of 4)

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Figure 3.13-1. Noise Measurement Locations (Sheet 2 of 4)

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Figure 3.13-1. Noise Measurement Locations (Sheet 3 of 4)

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Figure 3.13-1. Noise Measurement Locations (Sheet 4 of 4)

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Impact Analysis:

a) **Less Than Significant Impact.** Maximum construction noise levels at the nearest homes located along Markham Street would approach 90 dBA from the loudest activities, which include grading and paving activities. Such levels would exceed the County's allowable daytime standard of 65 dBA maximum noise level for stationary equipment. Measures N-1, N-2, and N-3 would be implemented to reduce potential construction noise impacts. Throughout operations, traffic noise level calculations and exterior noise levels at the nearest noise-sensitive receptors are expected to be in compliance with the County's exterior noise standard of 65 dBA CNEL. Impacts are considered less than significant.

b) **Less Than Significant Impact.** As the County does not have established vibration criteria, Caltrans vibration guidelines were used to assess potential vibration impacts due to construction of the Project. As seen in Table 3.13-1, the highest vibration levels are generated by vibratory rollers and large bulldozers. Vibratory rollers may operate as close as 40 feet from existing residential buildings near the intersection of Markham Street and Cedar Street. At this distance, vibration levels from vibratory rollers are estimated to reach 0.11 in/sec Peak Particle Velocity (PPV); which is below the building damage threshold of 0.30 in/sec PPV for older residential buildings. Large bulldozers would potentially operate at distances of 25 feet or closer to existing residential buildings. Vibration levels from large bulldozers at these distances would be 0.089 in/sec PPV or higher, and also below the damage threshold for older residential buildings.

Impacts are considered less than significant.

Table 3.13-1. Vibration Source Amplitudes for Construction Equipment

Equipment Type	Reference PPV at 25 ft. (in/sec)
Vibratory roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003

Source: Caltrans 2013

Notes:

PPV = Peak particle velocity; in/sec = inches per second

c) **No Impact**. The Project is not located within the vicinity of a private airstrip or airport land use plan. The closest airport is March Air Reserve Base, located approximately 6 miles northeast of the Project area. No impact would occur.

Avoidance Measures:

The following avoidance measures would be implemented as part of the Project to reduce potential impacts related to noise and vibration.

N-1 **Construction Schedule.** Limit roadway construction activities to the exempted daytime hours in the Riverside County Code, Ordinance No. 847, which are 6:00 AM to 6:00 PM during the months of June through September and 7:00 AM to 6:00 PM during the months of October through May (except weekends and holidays).

N-2 **Construction Equipment.** All construction equipment should be outfitted with manufacture-recommended mufflers and silencers.

N-3 **Idling.** Maintaining equipment in an idling mode should be minimized.

3.14 Population and Housing

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Source(s):

This section is based on the Riverside County Land Use Element (County of Riverside 2021b) and the SCAG RTP/SCS (SCAG 2020).

Regulatory Setting:

CEQA requires the analysis of a project's potential to induce growth. The CEQA guidelines (Section 15126.2[e]) require that environmental documents "…discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

Environmental Setting:

Population growth projections developed for the SCAG RTP/SCS indicate that the population of Riverside County is expected to increase from 2,493,000 in 2020 to 3,252,000 by 2045, which is a 30-percent increase (SCAG 2020).

Impact Analysis:

a) **No Impact.** The Project includes roadway improvements to the portion of Markham Street between Roosevelt Street and Wood Road. No new housing development or businesses are proposed as part of the Project, nor would the Project provide new access or new utilities. The proposed improvements are consistent with the County General Plan and would not induce population growth. No impact would occur.

b) **No Impact.** The proposed roadway improvements would not displace people or housing temporarily or permanently. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.15 Public Services

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire Protection?	☐	☐	☒	☐
ii. Police Protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Source(s):

This section is based on the Riverside General Plan Circulation Element (County of Riverside 2020) and the Riverside County General Plan Safety Element (Riverside County 2021d).

Regulatory Setting:

The CEQA guidelines (Section 15126.2[e]) require that environmental documents "…discuss the ways in which the project could foster economic or population growth, or… tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects…"

Environmental Setting:

Fire protection and emergency services are provided by the Riverside County Fire Department and CAL FIRE. The Riverside County Fire Department and CAL FIRE participate in a Cooperative Fire Response Agreement, where fire agencies have agreed to automatically support each other on incidents using the closest available resource (Riverside County 2021d). The nearest fire station is the Orange Crest Fire Station approximately 3 miles north of the Project area. Police protection services in the Project area are provided by the Riverside County Sheriff's Department. The nearest Riverside County Sheriff's Department patrol station is approximately 8 miles southeast of the Project area in the City of Perris.

The nearest school is Citrus Hill High School located southeast of the intersection of Markham Street and Wood Road, adjacent to the Project area. The closest recreational facility is Bergamont Park which is approximately 2.5 miles north of the Project area.

Impact Analysis:

ai) **Less Than Significant Impact.** The Project does not include the development of new occupiable buildings or other buildings that would increase demand on the Riverside County Fire Department, nor would it require a need for increased fire protection services or new fire protection infrastructure. Project-related construction activities may reduce fire response times in the vicinity of the Project area. Measure T-1 would be implemented to reduce potential impacts on response times during construction. Once operational, the Project would not affect fire response times or other performance objectives for fire protection. Impacts are considered less than significant.

aii) **Less Than Significant Impact.** The Project would not increase demand on the Riverside County Sheriff's Department. Project-related construction activities may reduce police response times in the vicinity of the

Project area. Measure T-1 would be implemented to reduce potential impacts on response times during construction. Once operational, the Project would not affect police response times or other performance objectives for police protection. Impacts are considered less than significant.

aiii) **No Impact.** No school facilities would be displaced during or after construction, nor would the project induce population growth that would necessitate the expansion of school services to serve new residents. No impact would occur.

aiv) **No Impact.** The Project would not displace or otherwise affect any parks. No impact would occur.

av) **No Impact.** No other public facilities are in the Project area. No impact would occur.

Avoidance Measure:

The following avoidance measure would be implemented as part of the Project to reduce potential impacts related to transportation.

T-1 **Traffic Control Plan:** During final design, a TCP will be prepared for the Project. The goals of the TCP during Project construction will include minimizing traffic delay or time spent in queue; maintaining traffic flow throughout the Project area and the surrounding areas; and providing a safe environment for the work force and motoring public.

3.16 Recreation

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Source(s):

This section is based on aerial imagery.

Regulatory Setting:

There are no State regulations related to recreational resources that apply to the Project.

Environmental Setting:

There are no existing parks or recreational facilities within the Project area. The nearest park is Bergamont Park, approximately 2.5 miles north of the Project area.

Impact Analysis:

a and b) **No Impact.** The Project would not result in increased use, construction of, or expansion of any parks or recreational facilities nor would any recreational facilities be impacted from construction activities. The Project includes new bike lanes on both sides of Markham Street to facilitate active transportation through the Project area and measures would be implemented to reduce potential environmental impacts. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.17 Transportation

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐

Source(s):

This section is based on the Traffic Impact Assessment Technical Memorandum (HDR 2022a).

Regulatory Setting:

SB743

Regulatory changes to the CEQA Guidelines that implement SB 743 were approved on December 28, 2018. The California Natural Resource Agency has also identified VMT as the most appropriate metric to evaluate a project's transportation impacts. Per Riverside County Transportation Analysis Guidelines, a project that results in an increase in VMT when comparing the future build alternative to the future no-build alternative (i.e., the VMT is higher under the future build scenario) will generally be considered significant impact, and mitigation will be required.

Environmental Setting:

Existing traffic counts at the roadway segments and study intersections were collected on September 23, 2021, to confirm the peak hours of the day and identify operational characteristics of the study roadway segments. The Citrus Hill High School located at the intersection of Markham Street and Wood Road was in session on the day the traffic counts were conducted. Roadway segment average daily traffic (ADT) data is summarized in Table 3.17-1.

Table 3.17-1. Existing 2021 Roadway Segment Bi-direction ADT

Roadway Segment	Location	Existing 2021 ADT
Markham Street	West of Roosevelt Street	183
Markham Street	Between Roosevelt Street and Wood Road	502
Markham Street	East of Wood Road	2,973
Roosevelt Street	North of Markham Street	131
Wood Road	North of Markham Street	6,319
Wood Road	South of Markham Street	6,672
Mariposa Avenue	Between Roosevelt Street and Wood Road	813

Table 3.17-1. Existing 2021 Roadway Segment Bi-direction ADT

Roadway Segment	Location	Existing 2021 ADT
Cajalco Road	Between Harley John Road and Wood Road	23,347

Impact Analysis:

a) **No Impact.** The design of the 1.3-mile roadway section for Markham Street between Roosevelt Street and Wood Road accommodates an ultimate secondary highway configuration per the County General Plan Circulation Element, with two travel lanes in each direction; however, the proposed roadway improvements as part of the Project would only include one travel lane in each direction along the southern half of the ultimate roadway section. In the future, the County may elect to construct two additional lanes along the northern portion of the ultimate roadway section. Completion of the Project would make Markham Street a complete connection from Harley John Road on the west to Interstate 215 on the east (HDR 2022a). The proposed roadway improvements also include bike lanes in each direction and pedestrian facilities along the southern portion of the roadway. No impact would occur.

b) **No Impact.** According to the Riverside County Transportation Analysis Guidelines (December 2020), the Project would be categorized as a Non-Significant Transportation Impact Project under the rehabilitation, maintenance, replacement, safety, and repair example. The Project would not result in additional vehicle miles traveled because the Project does not increase vehicle capacity. No impact would occur.

c) **No Impact.** The proposed roadway improvements do not include sharp curves or dangerous intersections and would be designed to comply with the County's applicable standards for a secondary highway. No impact would occur.

d) **Less Than Significant Impact.** Vehicular access would be maintained to the extent feasible during construction; however, access on Markham Street and nearby properties could be temporarily impacted by Project-related construction activities which could impede the ability for emergency vehicles to pass through the Project area expeditiously. Measure T-1 would be implemented to reduce potential impacts on emergency responders accessing the Project area. Once operational, the Project would not result in inadequate emergency access. Impacts are considered less than significant.

Avoidance Measure:

The following avoidance measure would be implemented as part of the Project to reduce potential impacts related to transportation.

T-1 **Traffic Control Plan (TCP):** During final design, a TCP will be prepared for the Project. The goals of the TCP during Project construction will include minimizing traffic delay or time spent in queue; maintaining traffic flow throughout the Project area and the surrounding areas; and providing a safe environment for the work force and motoring public.

3.18 Tribal Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Source(s):

This section is based on the Phase I Cultural Resource Assessment (PaleoWest 2023) and the County records for AB 52 consultation performed for the Project.

Regulatory Setting:

Assembly Bill 52

AB 52 requires early consultation with California Native American Tribes and consideration of Tribal Cultural Resources (TCRs). The term “tribal cultural resource” refers to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of California PRC Section 5020.1
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

The PRC requires a lead agency to consult with any California Native American Tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project (PRC section 21080.3.1). If after tribal consultation a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC section 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure.

Environmental Setting:

A search of the Sacred Lands File (SLF) maintained by the California Native American Heritage Commission (NAHC) was requested on November 9, 2021. On December 23, 2021, the NAHC responded that the search had not identified any known Native American cultural resources within the immediate vicinity of the Project area (PaleoWest 2023).

On March 31, 2022, AB 52 consultation letters were sent to representatives from the following six Native American Tribes to initiate formal AB 52 consultation with the County:

- Pechanga Band of Mission Indians: Ebru Ozdil, Juan Ochoa, Molly Earp, Michele Fahley
- Soboba Band of Luiseño Indians: Joseph Ontiveros
- Cahuilla Band of Indians: Bobby Ray Esparza
- Morongo Band of Mission Indians: Ann Brierty
- Pala Band of Mission Indians: Alexis Wallick
- San Manuel Band of Mission Indians: Ryan Nordness

The letters provided a summary of the Project and requested information regarding comments or concerns the Native American community might have about the Project and whether any traditional cultural properties, TCRs, or other resources of significance would be affected by implementation of the Project. The letters also stated that if the Tribes would like to consult under AB 52, they would have to respond within 30 days, pursuant to PRC 21080.3.1(d).

A summary of the AB 52 consultation process is provided below.

Pechanga Band of Mission Indians: Ebru Ozdil, Juan Ochoa, Molly Earp, Michele Fahley. After transmittal of the initial AB 52 consultation letter on March 31, 2022, a follow up email to tribal representatives was sent on May 11, 2022, with proposed meeting dates, and an additional follow up email was sent on May 18, 2022. On May 27, 2022, an additional follow up email was sent to tribal representatives along with the SLF search. On June 2, 2022, Juan Ochoa responded via email requesting government to government consultation and proposed a meeting date of June 7, 2022. Based on this request, the first consultation meeting took place online on June 7, 2022, 2022, from 2pm-3pm. Tribal representatives informed the County that the project location is within the Traditional Cultural Property (TCP) of Qaxáalku Payómik II and requested drawings, maps, and technical studies prepared for the Project including the cultural report and jurisdictional delineation. All requested documents were provided via email on August 24, 2022. A 3rd notification email/follow up was sent on September 28, 2022, and another meeting took place via online on November 1, 2022. Based on the discussion during the meeting, Tribal representatives were to provide County comments/mitigation language to include in cultural report and the County was to provide the final cultural report once available. The County provided a copy of the revised Cultural Report via secure email link on February 7, 2023, with a requested review duration of 30 days (March 9, 2023). No response was received from the Tribe. A Conclusion to Consultation Letter was sent on March 16, 2023, stating AB 52 consultation has concluded, and the County's Consultant will contact the Tribe regarding onsite monitoring. On August 9, 2023, the County notified Tribal representatives of geotechnical boring activities planned to occur on September 11, 2023, and September 12, 2023, with an invitation to monitor the geotechnical boring activities. A response to the invitation for monitoring was requested by September 8, 2023. The Tribe requested that a County appointed archaeologist and tribal monitor be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed.

Soboba Band of Luiseño Indians: Joseph Ontiveros. After transmittal of the initial AB 52 consultation letter on March 31, 2022, consultation was requested from tribal representatives on May 11, 2022. On May 16, 2022, a response was provided to tribal representatives along with a request to schedule a meeting. A follow up email to meet with tribal representatives was sent on May 26, 2022, accompanied with a copy of the SLF search. All documents requested by tribal representatives, including a copy of the cultural report prepared for the Project, was provided via a secure link in email on August 24, 2022. A 3rd notification/email was sent on September 28, 2022, and two subsequent consultation meetings took place on October 5, 2022, and October 20, 2022. During the meetings, tribal representatives stated that the Project area is within a Traditional Cultural Landscape, as the project area and the creek were considered an important traditional use area which included several plant species and resources that were important to the Tribe's traditional practice. The County provided a copy of the revised Cultural Report via secure email link on February 7, 2023, with a requested review duration of 30 days (March 9, 2023). No response was received from the Tribe. A Conclusion to Consultation Letter was sent on March 16, 2023, stating AB 52 consultation has concluded, and the County's Consultant will contact the Tribe regarding onsite monitoring. On August 9, 2023, the County notified tribal representatives of geotechnical boring activities planned to occur on September 11, 2023, and September 12, 2023, with an invitation to monitor the geotechnical boring activities. A response to the invitation for monitoring was requested by September 8, 2023. The Tribe requested that a County appointed archaeologist and tribal monitor be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed.

Cahuilla Band of Indians: Bobby Ray Esparza. After transmittal of the initial AB 52 consultation letter on March 31, 2022, a follow up email to tribal representatives was sent on May 11, 2022. The Tribe acknowledged the follow up email sent on May 11, 2022, and replied via email on May 19, 2022, requesting not to consult at the time but would like to request a copy of the cultural report upon availability for review to provide the Tribe more information on whether consultation is needed. Tribal representatives were provided with all the requested documents via email on August 24, 2022. A 3rd notification/email was sent on September 28, 2022, and no response was received from the Tribe. The County provided a copy of the revised Cultural Report via secure email link on February 7, 2023, with a requested review duration of 30 days (March 9, 2023). No response was received. A Conclusion to Consultation Letter was sent on March 16, 2023, stating AB 52 consultation has concluded, and the County's Consultant will contact the Tribe regarding onsite monitoring. A response was received on March 22, 2023, accepting conclusion of consultation noting the Cahuilla Band of Indians looks forward to working with the County on this project. On August 9, 2023, the County notified tribal representatives of geotechnical boring activities planned to occur on September 11, 2023, and September 12, 2023, with an invitation to monitor the geotechnical boring activities. On August 9, 2023, a response was received with interest to monitor proposed geotechnical boring activities. A tribal monitor was on site during the geotechnical boring activities. The Tribe requested that a County appointed archaeologist and tribal monitor be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed.

Morongo Band of Mission Indians: Ann Brierty. After transmittal of the initial AB 52 consultation letter on March 31, 2022, follow up emails to tribal representatives were sent on May 11, 2022, and on May 27, 2022, with a request for response by June 26, 2022. Consultation was concluded on June 26, 2022, and a Conclusion to Consultation Letter was sent on June 29, 2022, stating AB 52 consultation has concluded.

Pala Band of Mission Indians: Alexis Wallick. After transmittal of the initial AB 52 consultation letter on March 31, 2022, follow up emails to tribal representatives were sent on May 11, 2022, and on May 27, 2022, with a request for response by June 26, 2022. On May 31, 2022, the Tribe declined consultation via letter.

San Manuel Band of Mission Indians: Ryan Nordness. After transmittal of the initial AB 52 consultation letter on March 31, 2022, an email response was received on May 11, 2022, declining consultation.

Separate from AB 52 consultation carried out by the County, the consultant sent letters to 21 individuals representing 13 Native American tribal groups on the NAHC's list. The letters constituted informal outreach as part of the cultural resource investigation and requested information about cultural resources that may be known to tribal representatives (PaleoWest 2023). The following responses were received:

- Pechanga Band of Mission Indians: Paul Macarro stated that the Project is within the Tribe's Ancestral Territory. The Project area is in a TCP and that a second TCP is 850 yards away from the Project boundary. He also stated that there is an extremely high possibility of recovering subsurface resources during ground-disturbing activities.
- Soboba Band of Luiseño Indians: Joseph Ontiveros stated the Project area is surrounded by cultural resources and sits on the west end of a TCP that has been determined eligible for the NRHP with State Historic Preservation Officer concurrence. Additionally, Mr. Ontiveros stated that a second TCP has been identified in the Project vicinity. Mr. Ontiveros noted that the area is extremely sensitive and there is a possibility for inadvertent discoveries.
- Agua Caliente Band of Cahuilla Indians: Arysa Gonzalez Romero stated that the Project area is not located within the boundaries of the ***Agua Caliente Band of Cahuilla Indians*** Reservation but that it does lie within the Tribe's Traditional Use Area. The ***Agua Caliente Band of Cahuilla Indians*** requested that a cultural resources inventory of the Project area by a qualified archaeologist prior to any development activities in this area, a copy of the records search associated survey reports and site records from the information center, and copies of any cultural resource documentation (report and site records) generated in connection with this project.
- Rincon Band of Luiseño Indians: Cheryl Madrigal stated that the Project is within the Traditional Use Area of the Luiseño people. Although the Tribe has no knowledge of specific TCRs or TCPs potentially affected by the Project, the Tribe does believe the Project is within a culturally sensitive area as natural drainages were places for gathering plants, hunting, and ceremonies. The Project area has been previously disturbed, but there is potential for historic properties or TCRs to be identified during the duration of the Project.

Impact Analysis:

a) **Less Than Significant Impact with Mitigation Incorporated.** Through the SLF search, AB 52 consultation process, and tribal outreach conducted by the consultant, TCRs were identified in or near the Project area that are listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) and that have the potential to be impacted by the Project. Implementation of Measures ARC-1 through ARC-4, which reflect input received from consulting Tribes,

would reduce potential impacts related to known TCRs and inadvertent discoveries of tribally significant resources. Impacts are considered less than significant impact with mitigation incorporated.

b) **Less Than Significant Impact with Mitigation Incorporated.** Through the SLF search, AB 52 consultation process, and tribal outreach conducted by the consultant, TCRs were identified in or near the Project area that are significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, considering their cultural significance to California Native American Tribes, and that have the potential to be impacted by the Project. Implementation of Measures ARC-1 through ARC-4, which reflect input received from consulting Tribes, would reduce potential impacts related to known TCRs and inadvertent discoveries of tribally significant resources. Impacts are considered less than significant impact with mitigation incorporated.

Mitigation Measures:

The mitigation measures listed in Section 3.5 (ARC-1 through ARC-4) would be implemented as part of the Project to reduce potential impacts related to TCRs.

3.19 Utilities and Service Systems

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Source(s):

This section is based on the Drainage Report (HDR 2024c).

Regulatory Setting:

Environmental Setting:

The Project is located in a semi-rural area of the County. Within the Project area, a sewer lift station and water-pumping station are present, along with existing utilities including overhead power lines, water lines, a gas line, and telephone lines.

Impact Analysis:

a) **Less Than Significant Impact.** Drainage improvements would include storm drain piping and the addition of culverts to direct storm-flow drainage across the roadway. The proposed drainage infrastructure improvements include installation of nine culverts, one regional channel to facilitate off site drainage, and twelve catch basins to collect and divert on site street flow drainage to the proposed off-site culverts and the regional channel (HDR 2024c).

In addition, existing utilities that may require relocations or modifications to accommodate the proposed roadway improvements include power poles and water, gas, and electrical lines. Power poles along the north side of Markham Street will need to be reset to the proposed grade. The Project would also require the relocation and lowering of water, gas, and underground electrical lines. Areas disturbed due to utility relocation or modifications would be restored to pre-construction conditions following the completion of construction. Avoidance, minimization, and mitigation measures outlined in this ISMND would be implemented to reduce potential environmental impacts. Impacts are considered less than significant.

b) **Less Than Significant Impact.** Due to the size and type of Project, construction of proposed roadway improvements would require minimal use of water during construction, and no water demands once operational. Sufficient water supplies are expected to be available during construction, as the Project is consistent with and would implement roadway improvements as planned for the County General Plan. Impacts are considered less than significant.

c) **No Impact.** The Project would not result in any changes in the quantity or quality of water or wastewater in the Project area nor would it affect the existing water or wastewater treatment facilities. No impact would occur.

d) **Less Than Significant Impact.** Construction debris would consist of concrete, asphalt, fencing material, and other related materials. The quantity of construction waste for the Project is not anticipated to exceed the capacity of area landfills. Impacts are considered less than significant.

e) **No Impact.** The Project would not generate solid waste during operation. During construction, the contractor is required to comply with all applicable federal, state, and local management and reduction statutes. No impact would occur.

Avoidance, Minimization, and/or Mitigation Measures:

No avoidance, minimization, and/or mitigation measures are required.

3.20 Wildfire

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Source(s):

This section is based on California Department of Forestry and Fire Protection's (CAL FIRE) Fire Hazard Severity Zones Map (California Department of Forestry and Fire Protection 2022), Lake Mathews/Woodcrest Area Plan (County of Riverside 2021c), and Riverside County General Plan Safety Element (Riverside County 2021d).

Regulatory Setting:

CAL FIRE classifies and maps wildfire hazards within State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs). LRAs are lands on which neither state nor federal government have any legal responsibility for providing fire protection. SRAs are lands in which the State of California holds financial responsibility for providing fire protection.

Per California Government Code 51175-89, CAL FIRE is required to identify very high FHSZ based on data and models of potential fuels over a 30-50-year time horizon and their associated expected fire behavior and expected burn probabilities which quantifies the likelihood and nature of vegetation fire exposure (including firebrands) to buildings.

The Riverside County General Plan Safety Element identifies the emergency routes for the Lake Matthews/Woodcrest area as Interstate 15 (West of Markham Street), Cajalco Road (South of Markham Street), and La Sierra Avenue (Northwest of Markham Street) (Riverside County 2021d).

Environmental Setting:

The County has developed a Multi-Jurisdictional Local Hazard Mitigation Plan (County of Riverside 2018) which identifies the County's hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards. The County is also subject to the County's Emergency Operations

Plan (County of Riverside 2019a) which serves as a reference tool and foundation for coordinating emergencies response and recovery strategies for the County and its operation area, which consists of a combination of the County, all unincorporated areas, all cities, and all political subdivisions within the County's geographic boundaries.

The County General Plan, Safety Element (Riverside County 2021d) states that wildfire hazard is the highest-priority hazard in the County and is the hazard with the greatest potential for catastrophic loss. Based on information from the California FHSZ Viewer, the Project area is located within a high FHSZ within an SRA and is also adjacent to other moderate and very high SRA FHSZ (California Department of Forestry and Fire Protection 2022).

Impact Analysis:

a) **No Impact.** The Project would not impair or interfere with any emergency routes identified in the Multi-Jurisdictional Local Hazard Mitigation Plan or the Emergency Operations Plan. No impact would occur.

b) **Less Than Significant Impact.** Construction equipment and machinery increase the likelihood of fire risks due to the use of gasoline and diesel. However, construction equipment would largely be confined to the existing roadway and Measure DBESP-3 would be implemented to reduce potential impacts related to wildfire. Therefore, it is not anticipated that the Project would exacerbate wildfire risks or otherwise increase wildfire risk. Impacts are considered less than significant.

c) **Less Than Significant Impact.** The Project does not include new utility infrastructure. The addition of a new paved roadway, bike lanes, and sidewalks would contribute to a more effective firebreak by reducing flammable vegetation adjacent to the existing paved and dirt portions of Markham Street. Impacts are considered less than significant.

d) **Less Than Significant Impact.** The Project includes a new roadway hardscape area, which would result in a permanent increase in impervious surfaces. However, the Project would include storm drain piping along the roadway and the addition of culverts to direct storm-flow drainage across the roadway and to manage the increase in runoff. These drainage features would not expose people or structures to increased flooding risks. The Project area is generally flat; therefore, landslide risks are low. Impacts are considered less than significant.

Avoidance Measure:

DBESP-3 During construction, all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the U.S. or CDFW-regulated streambed.

3.21 Mandatory Findings of Significance

I. Mandatory Findings of Significance

Environmental Issue Area:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impact Analysis:

a) **Less than Significant with Mitigation Incorporated.** As described in Section 3.4 Biological Resources, the Project has the potential to impact sensitive species and natural communities. Mitigation Measures BIO-6 and DBESP-5 would be implemented to reduce potential impacts on biological resources. Additionally, while not required for mitigation, Measures BIO-1 through BIO-5, BIO-7 through BIO-15, DBESP-1 through DBESP-4, and DBESP-6 through DBESP-8 would be implemented to further reduce impacts on biological resources.

As described in Section 3.5 Cultural Resources, the Project has the potential to impact archaeological resources. As a result, Measure ARC-1 through ARC-4 would be implemented to reduce potential impacts on archaeological resources. Therefore, impacts are considered less than significant with mitigation incorporated.

b) **No Impact.** There are no known or proposed projects in the Project area that would be implemented at the same time or space as the Project. No impact would occur.

c) **Less than Significant.** Generally, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the analyses above for air quality, hazards and hazardous materials, and noise, the Project would result in a less than significant impact on these resources or less than significant impact with mitigation incorporated. Therefore, the Project would not result in substantial adverse effects on human beings, either directly or indirectly.

Avoidance, Minimization, and/or Mitigation Measures:

The following avoidance, minimization, and mitigation measures would be implemented as part of the Project to reduce potential impacts on wildlife species and historical resources.

Avoidance Measures:

BIO-7 **Crotch's Bumble Bee Survey.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. Within one year prior to construction, a habitat assessment for Crotch's bumble bee will be conducted within the Project area and an appropriate survey buffer be established by a qualified biologist with experience surveying for and observing Crotch's bumble bee. If the qualified biologist determines that suitable habitat is present, surveys shall be conducted to determine the presence/absence of Crotch's bumble bee. Surveys shall be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983). Survey results, including negative findings, shall be submitted to the CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. At minimum, a survey report should provide the following: a) A description and map of the survey area, focusing on areas that could provide suitable habitat for Crotch's bumble bee; b) Field survey conditions that should include name(s) of qualified entomologist(s) and brief qualifications; date and time of survey; survey duration; general weather conditions; survey goals, and species searched; c) Map(s) showing the location of nests/colonies; and, d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within impacted habitat (e.g., species list separated by vegetation class; density, cover, and abundance of each species).

BIO-8 **Crotch's Bumble Bee Avoidance.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the Crotch's bumble bee survey, the County shall ensure that a plan to fully avoid impacts to Crotch's bumble bee be developed in consultation with a qualified entomologist during final design. The plan shall include effective, specific, enforceable, and feasible measures. An avoidance plan should be submitted to CDFW prior to implementing Project-related ground-disturbing activities and/or vegetation removal where there may be impacts to Crotch's bumble bee. If Crotch's bumble bees are determined to be present within the Project area and it is determined the species will be impacted by Project implementation, appropriate mitigation shall be determined in consultation with CDFW.

BIO-9 **Crotch's Bumble Bee Incidental Take Permit.** This measure will only be implemented should Crotch's bumble bee remain a candidate for listing or become a state-listed species prior to Project implementation. If Crotch's bumble bee is detected during the survey (required by Measure BIO-7), and if impacts to Crotch's bumble bee cannot be feasibly avoided during Project construction, the County shall ensure that the designated qualified entomologist coordinate with CDFW to obtain appropriate permit for incidental take of Crotch's bumble bee prior to commencement of Project construction in habitat occupied by Crotch's bumble bee. The incidental take permit would quantify and provide appropriate mitigation for impacts on Crotch's bumble bee habitat. Mitigation for impacts to Crotch's bumble bee habitat would be at a ratio comparable to the Project's level of impacts.

BIO-10 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for SWFL and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

BIO-13 **Coastal California Gnatcatcher Avoidance.** Should nesting CAGN be found on or in the immediate vicinity (approximately 300-feet) of the Project area during surveys conducted in compliance with Measure BIO-11, the qualified biologist shall establish an appropriate buffer to prevent alteration of nesting CAGN behavior. No construction or clearing shall be conducted within the established buffer until the designated biologist determines that the young have fledged, or the nest is no longer active.

BIO-15 **Bat Roosting Habitat Removal.** Prior to tree removal or trimming, large trees and snags shall be examined by a qualified bat biologist to ensure that no roosting bats are present. If trimming or removal of mature trees and snags is necessary for Project construction, trimming/removal activities

should be performed outside of the general bat maternity season, which occurs from March 1st through October 1st, to avoid direct effects to nonvolant (flightless) young that may roost in trees within the study area. If trimming or removal of trees during the general bat maternity season cannot be avoided, a qualified biologist will monitor tree removal unless nighttime surveys conducted within one week of removal indicates no tree-roosting bat activity within the study area.

Palm frond trimming, if necessary, shall be conducted outside the bat maternity season to avoid potential mortality of flightless young. Since western yellow bats and western mastiff bats may be present in untrimmed palm tree fronds, a qualified bat biologist shall be present to monitor frond removal. Dead fronds shall be removed under the guidance of the bat biologist, following the two-day method described below.

DAY 1: Only trim the outermost fronds may be trimmed (no more than 50 percent of the palm fronds) using hand tools or chainsaws only (no dozers, backhoes, cranes, or other heavy equipment, other than to provide access for tree cutters using chainsaws).

DAY 2: The palm tree must be felled. Day 2 activities must occur the day immediately following the Day 1 activities. To accomplish this, work may need to be phased and Day 1/Day 2 steps can be repeated. Should bats emerge during the tree trimming, trimming activities must temporarily cease at the individual tree until bats are no longer actively emerging from the tree.

DBESP-3 During construction, all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas will be located so as to prevent runoff from any spills from entering waters of the U.S. or CDFW-regulated streambed.

DBESP-4 Prior to construction a SWPPP and soil erosion and sedimentation plan will be developed to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and non-point pollution sources on site during construction. The SWPPP will identify specific best management practices to be implemented during construction so as not to cause or contribute to an exceedance of any water quality standard.

DBESP-6 **Riparian Bird Habitat Removal.** Prior to construction, suitable habitat for SWFL and LBV within the Project area will be removed between September 1 and February 14, outside of the nesting season. If it cannot occur outside nesting season the Project biologist will survey the area and delineate buffers suitable to avoid take if nesting birds, including foraging SWFL or LBV or active LBV nests, are found.

DBESP-7 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

Minimization Measures:

BIO-1 **Project Biologist.** A qualified biologist will oversee compliance with protective measures for the biological resources during clearing and work activities within and adjacent to areas of native habitat. The Project biologist shall designate areas that need temporary fencing and monitor construction. The biologist shall monitor activities during critical times such as vegetation removal, the installation of BMPs and ESA fencing to protect native species and ensure that all avoidance and minimization measures are properly constructed and followed. The biologist will conduct site visits a minimum of

once weekly throughout construction to verify that required biological resources protections are in place.

BIO-2 **Worker Environmental Awareness Program (WEAP).** Prior to construction, the Project biologist shall conduct WEAP training for all Project employees and contractors that will be on site. The training will advise workers of potential impacts to sensitive habitat and listed species and the potential penalties for impacts to such habitat and species. Included in this program will be color photos of the listed species, which will be shown to the employees. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where they will remain through the duration of the work. The contractor will be required to provide the County with evidence of the employee training (e.g., sign in sheet or stickers) upon request.

BIO-3 **Environmentally Sensitive Areas (ESAs).** During construction, the Project contractor will fully minimize Project impacts on riparian and California buckwheat scrub habitat to the fullest extent possible. These areas shall be demarcated as ESAs. No grading or fill activity of any type will be permitted within designated ESAs. Prior to construction, the Project biologist shall ensure that non-impacted native habitat located outside of the Project area is demarcated as ESAs. Prior to construction, exclusionary fencing shall be installed around all ESAs under supervision of the Project biologist. ESA fencing will remain in place throughout the duration of construction. All construction equipment will be operated in a manner to prevent accidental encroachment or damage into ESAs. The biological monitor will conduct at a minimum, once weekly inspections of the ESA fencing to ensure that it is in place and properly maintained throughout the duration of construction. The contractor will be responsible for maintaining the ESA fencing per the biological monitor's direction.

BIO-4 **Equipment Maintenance and Staging.** During construction all equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland habitat areas. The designated upland areas shall be located a minimum of 50 feet away from any drainage areas, so as to prevent runoff of any spills from entering ESAs. Construction personnel will strictly limit their activities to the limits of disturbance and designated staging areas and routes of travel.

BIO–5 **On-site restoration of native habitat.** Temporary impacts to native habitat will be restored in-kind following construction. On-site restoration methodology for riparian habitat will be described in the Restoration Plan for the Project, which will be submitted to the resource agencies and subject to agency approval as part of the regulatory permit applications, prior to Project construction activities. Temporary impacts to non-native riparian habitats would be restored using cuttings from native riparian trees and shrubs within the Project area following construction. On-site restoration areas would be monitored for a period of 5 years following restoration to ensure restoration activities are meeting success criteria identified in the Restoration Plan. Any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site.

BIO-11 **Pre-construction Surveys and Monitoring for Least Bell's Vireo.** Should construction activities begin during the LBV nesting season (March 15 to August 15), a qualified biologist will conduct three separate days of surveys, no more than 7 days prior to construction, to identify and map LBV nesting locations. The qualified biologist will also conduct weekly surveys throughout the LBV nesting season in all suitable LBV habitat within 500-feet of the active work area. In the event that LBV nesting activity is detected within 500-feet of the work area, if feasible, a 500-foot buffer shall be established between construction activities and the approximate edge of the LBV territory, to avoid affects to nesting LBV. If this is not possible, and the qualified biologist deems that construction activities can continue without disturbing nesting LBV, nests shall be monitored daily by the qualified biologist during all construction activities. If the biologist determines that the Project-related activities are altering LBV behavior, e.g., causing adults to flush from the nest more frequently, Project activities shall be halted within 500-feet of the active nest. Prior to re-commencement of work within 500-feet of the active nest, CDFW and USFWS will be notified and measures to reduce noise or noise impacts will be implemented in coordination with CDFW and USFWS. Measures may include increasing or reestablishing a nest buffer, installing noise barriers, or implementing noise attenuation measures (e.g., reducing the number of construction vehicles or using different types of construction vehicles; reducing the number of noisy activities that occur simultaneously) as feasible. These measures will remain in place until all nestlings have fledged, or construction activities have moved 500-feet beyond that area of LBV activity. Construction activities that alter LBV behavior will cease operation until effective noise attenuation measures are in place to the extent practicable. The results of LBV preconstruction survey, weekly surveys, and monitoring will be reported weekly to CDFW and USFWS.

BIO-12 **Nesting Bird Surveys**. Vegetation removal or tree (native or exotic) trimming activities will occur outside of the nesting bird season. Other than for suitable LBV habitat, in the event that vegetation clearing is necessary during the nesting season (i.e., February 15 through August 31), a qualified biologist will conduct a preconstruction survey to determine whether any active bird nests are present.

Should nesting birds be found, an exclusionary buffer shall be established by a qualified biologist. This buffer shall be clearly marked in the field, and construction or clearing shall not be conducted within this zone until the qualified biologist determines that the young have fledged, or the nest is no longer active.

BIO-14 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for BUOW will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. Appropriate measures to avoid take of active BUOW nests may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, passive relocation would be conducted by a qualified avian biologist outside of the nesting season, if necessary.

DBESP-1 Prior to construction, a weed abatement program will be developed and implemented to minimize the importation of non-native plant material during and after construction. Eradication strategies from the weed abatement program will be employed during construction activities, should an invasion occur.

DBESP-2 During construction, when work is conducted during the fire season (as identified by the Riverside County Fire Authority) adjacent to any vegetation, the appropriate firefighting equipment (e.g., extinguishers, shovels, and water tankers) will be made available on site during all phases of Project construction to minimize the potential for human-caused wildfires. Shields, protective mats, and/or other fire preventive methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires will advise the construction contractors regarding fire risk from all construction-related activities.

DBESP-8 **Burrowing Owl Preconstruction Survey.** Prior to construction, a survey for BUOW will be conducted by a qualified biologist within 30 days prior to vegetation clearing/grading. If BUOW are found within 500 feet (150 meters) of the Project area during the preconstruction survey, the County or its designated representative will immediately inform and coordinate with CDFW and USFWS to identify and implement applicable measures provided in WRCMSHCP BUOW Conservation Objective 6, as provided in Volume 1, Appendix E of the WRCMSHCP. The qualified biologist shall determine appropriate measures necessary to avoid take of active BUOW nests, which may include establishment of an appropriate buffer until BUOW young have fledged or BUOW no longer occupy the burrow. If any burrows are identified within the Project area, a qualified avian biologist would conduct passive relocation outside of the nesting season, if necessary.

Mitigation Measures:

BIO-6 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat will be mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio of 2:1 for permanent impacts and at a ratio of 1:1 for temporal loss of LBV nesting habitat.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the WRCMSHCP Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the SAWA Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation location, long-term management entity, and mitigation categories will be included in a HMMP that will be prepared for the Project and submitted to regulatory agencies (USFWS, CDFW, USACE, and RWQCB) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that occur in the on-site habitat being impacted (i.e., mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

DBESP-5 **Riparian Habitat Compensatory Mitigation.** Permanent direct impacts on riparian habitat (i.e., black willow woodland, mule fat thickets, cattail marsh, cocklebur patches, and perennial pepper weed patches) are mitigated through permittee responsible mitigation in the form of establishment, restoration, and/or enhancement of riparian habitat at a suitable location to provide Biologically Equivalent or Superior Preservation of Habitat. Compensatory mitigation will be provided at a ratio

of 2:1 for permanent impacts to riparian habitat. Impacts to riparian habitat will be mitigated for in kind (i.e., impacts to riparian woodland habitat would be mitigated for with riparian woodland; herbaceous riparian habitat would be mitigated for with herbaceous riparian habitat) or with a higher quality habitat. Mitigation for riparian habitat that also supports nesting LBV (i.e., black willow woodland and mule fat thickets) will be mitigated through in-kind replacement and will be required to demonstrate that the replacement habitat supports nesting LBV.

Temporary impacts to on-site native habitat will be restored where feasible. A Restoration Plan will be developed to define the approach for onsite restoration and will include erosion control measures, willow cutting planting plan, hydroseeding palette and methods, and a maintenance and monitoring methodology. In addition, any temporarily impacted riparian habitat that is not restored will be mitigated at 1.1 ratio off site. Compensatory mitigation will be accomplished within the WRCMSHCP Planning Area. The preferred compensatory mitigation option is to implement permittee-responsible mitigation at the SAWA Mockingbird Conservation Easement, located adjacent to the Project south of the intersection of Markham Street and Roosevelt Street, or on Western Riverside County Regional Conservation Authority-owned parcels associated with Temescal Creek.

Details regarding the off-site mitigation site location, long-term management entity, and mitigation categories will be included in a HMMP that will be prepared for the Project and submitted to regulatory agencies (USFWS, CDFW, USACE, and RWQCB) for approval prior to Project commencement. Mitigation will include establishment or restoration of in-kind habitat to support listed species that occur in habitat being impacted (i.e., mitigation for impacts to occupied LBV habitat will include habitat suitable to support foraging and nesting LBV).

ARC-1 County appointed archaeological and tribal monitors will be present during any ground disturbing activities along Markham Street until excavation of previously undisturbed native soil has been completed. Participating tribes will rotate their schedule so that one tribal monitor at a time is on the Project site during any excavation.

Prior to commencement of construction, there will be a meeting in which the construction staff, tribal monitor(s), archaeological monitor/consultant, and Resident Engineer (RE) will conduct preconstruction archaeological resource sensitivity and awareness training. This meeting will also discuss the monitoring and safety requirements. It is critical that all parties understand the methods and goals as well as the protocols for the inadvertent discovery of archaeological resources, tribal resources, and/or human remains during construction. Record of this meeting shall be placed in the RE file.

The archaeological monitor, in coordination with the tribal monitor, shall have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow for identification, evaluation, and potential recovery of cultural resources. Should buried cultural deposits be encountered, the archaeological monitor shall contact the County Archaeologist immediately, and in coordination with the THPOs of consulting tribes, will evaluate the resource and formulate a plan to move forward.

ARC-2 If archaeological and/or tribal resources are encountered during construction, the archaeological monitor, in coordination with the tribal monitor shall:

- Halt all work within a 60-foot radius and shall immediately inform the RE.
- Following notification, the archaeological monitor, in coordination with the tribal monitor, will make a preliminary assessment of the discovery to determine whether the find is an isolated artifact or recent deposit. If the find is determined to be isolated or recent, construction will be allowed to resume.
- Should the monitor(s) determine the discovery is potentially significant, the monitor(s) shall contact the County Archaeologist immediately to evaluate the discovery and if necessary, formulate appropriate mitigation measures.
- If the discovery contains tribal resources, all consulting tribes shall be contacted and informed of the discovery. The tribal resource discovery, including human remains, shall not be disturbed (i.e., photographed, videoed, or moved) until the County Archaeologist and consulting tribes have agreed upon appropriate treatment measures.

If archaeological and/or tribal resources are encountered anywhere during Project construction when no monitor(s) are present, work in the area must halt within a 60-foot radius until the monitor(s) can evaluate the nature and significance of the find and formulate appropriate evaluation and/or mitigation measures.

Once the agreed upon treatment measures have been implemented, construction activity can resume in that area.

ARC-3 In the event that human remains are discovered during construction at any time, the following provisions shall apply:

- State Health and Safety Code Section 7050.5 states that no further disturbance and all construction activity shall immediately be halted within 60 feet of the discovery until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American and not under the coroner's jurisdiction, within 24 hours the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). During this time all remains, associated soils, and artifacts will remain in situ, and shall be protected from public viewing. The County will take appropriate measures to protect the discovery site from disturbance during any negotiations. This may include restricting access to the discovery site and the need to hire 24-hour security. With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Work will be suspended within a 60-foot radius of the human remains until the MLD's recommendations are implemented.
- A meeting shall be convened between the County Archaeologist, archaeological monitor, and the MLD to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the discovery. Resource evaluations shall be limited to non-destructive analysis.
- Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.
- The County Archaeologist will work with the MLD in regard to the treatment of the remains and all associated funerary objects and will ensure that any identified human remains will be secured while they are left in place and while treatment decisions are in progress. Information concerning the discovery shall not be disclosed pursuant to the specific exemption set forth in California Government Code Section 6254.5(e).
- The County shall relinquish ownership of all tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW through one or more of the following methods and provide evidence of same:

    a. A pre-determined reburial area will be determined prior to construction. This shall include measures and provisions to protect the future pre-determined reburial area within the Project property from any future impacts. The measures for reburial shall be culturally appropriate as determined through consultation with the consulting tribes and include, at least, the following:

        i. Measures to protect the reburial area from any future impacts in perpetuity.

        ii. Reburial shall not occur until all required cataloguing (including a complete photographic record) and analysis have been completed on the cultural resources, with the exception that sacred and ceremonial items, burial goods, and Native American human remains are excluded. No cataloguing, analysis, or other studies may occur on human remains, grave goods, and sacred and ceremonial items. Any reburial processes shall be culturally appropriate and approved by the consulting tribes.

        iii. Listing of contents and location of the reburial shall be confidential and not subject to a Public Records Request.

        iv. The County shall establish a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

    b. Should reburial of collected cultural items be preferred, it shall not occur until after the Archaeological Resources Monitoring Report/Data Recovery Report has been submitted to the County. Should curation be preferred, the County is responsible for all costs and the repository and curation method shall be described in the Archaeological Resources Monitoring Report/Data Recovery Report.

c. Tribal resources, including sacred items, burial goods, and all Native American archaeological artifacts and non-human remains found within County ROW that are to be reburied are to be kept safe on site on a locked and secure location within the RE's office (if feasible) until disposition of such tribal resources takes place for reburial.

- Artifacts found outside the County ROW are not subject to these requirements and are to be relinquished to the consulting tribes by the property owner for suitable curation or ownership. It is the responsibility of the consulting tribes to come to agreement with the property owner.

In the event that the County Archaeologist and MLD are in disagreement regarding the disposition of the remains, State law will apply, and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

ARC-4 Should additional actions be proposed outside the currently defined Project area that have the potential for additional subsurface disturbance, further cultural resource management may be required.

4 References

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6 List of Technical Studies

Technical studies are available via the Project webpage except for the cultural reports, which contain confidential resource information.

- Air Quality Report
- Noise and Vibration Study Report
- Biological Resources Technical Report
- Determination of Biologically Equivalent or Superior Preservation Report
- Phase I Cultural Resource Assessment
- Paleontological Resources Technical Report
- Water Quality Technical Memorandum
- Phase I Environmental Site Assessment
- Traffic Impact Assessment Technical Memorandum

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