

**RESOLUTION NO. 2025-014**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORONA, CALIFORNIA, TENTATIVELY APPROVING AN AMENDMENT TO THE CITY'S GENERAL PLAN TO REVISE THE CITYWIDE ROADWAY PLAN WITHIN THE CIRCULATION ELEMENT TO CHANGE THE ROADWAY CLASSIFICATION FOR A PORTION OF WEST ONTARIO AVENUE FROM MAJOR ARTERIAL 4 LANE TO MAJOR ARTERIAL 6 LANE AND TO REVISE THE PUBLIC SAFETY ELEMENT TO UPDATE THE DEFINITION AND DESCRIPTION OF THE CITY'S LOCAL HAZARD MITIGATION PLAN, AS PART OF THE CYCLE 2 OF GENERAL PLAN AMENDMENTS FOR CALENDAR YEAR 2025 (GPA2024-0002).**

**WHEREAS**, on February 10, 2025, the Planning and Housing Commission of the City of Corona ("Planning Commission") conducted a duly noticed public hearing and recommended that the City Council of the City of Corona ("City Council") approve GPA2024-0002 as part of the General Plan Amendments for Cycle 2 for calendar year 2025 to: (1) revise the Citywide Roadway Plan within the Circulation Element to change the roadway classification for a portion of West Ontario Avenue from "Major Arterial 4 Lane" to "Major Arterial 6 Lane" ("Circulation Element Amendment"); and (2) to revise the Public Safety Element to update the definition and description of the City's adopted Local Hazard Mitigation Plan ("Public Safety Element Amendment") (Circulation Element Amendment and Public Safety Element Amendment collectively referred to herein as the "General Plan Amendment"); and

**WHEREAS**, on June 3, 2020, the City Council of the City of Corona ("City") adopted Resolution No. 2020-036 certifying a Final Environmental Impact Report for the Corona General Plan Technical Update (SCH # 2018081039) ("General Plan EIR"), made findings of fact and adopted a Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Program; and

**WHEREAS**, in accordance with the requirements of the California Environmental Quality Act (Pub. Res. Code Section 21000 et seq.), together with the State Guidelines (14 Cal. Code Regs. Section 15000 et seq.) and local guidelines implementing said Act (collectively, "CEQA"), the City prepared an environmental evaluation to analyze the potential environmental impacts associated with the Circulation Element Amendment and determine whether such impacts were adequately addressed in the General Plan EIR. The evaluation indicated that the Circulation Element Amendment will not result in impacts beyond what was previously analyzed in the General Plan EIR, will not require additional mitigation measures not otherwise included in the General Plan EIR because the Circulation Element Amendment will not have new or substantially more severe significant environmental impacts and none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR has occurred. Therefore,

**EXHIBIT 1**

the City prepared an addendum to the General Plan EIR (“Addendum”), attached hereto as Exhibit “A” and incorporated herein by reference; and

**WHEREAS**, the Planning Commission based its recommendation to adopt the General Plan Amendment on the findings set forth below; and

**WHEREAS**, on March 19, 2025, the City Council held a duly noticed public hearing at which all persons wishing to testify in connection with the General Plan Amendment were heard and the General Plan Amendment was comprehensively reviewed; and

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CORONA, CALIFORNIA AS FOLLOWS:**

**SECTION 1. CEQA Findings for Circulation Element Amendment.** The City Council has reviewed and considered the information contained in the Addendum and all written and oral evidence received and presented concerning the Circulation Element Amendment. Based on the entire record before it and all written and oral evidence received and presented, the City Council has determined that the Addendum constitutes an adequate, accurate, objective, and complete review of the Circulation Element Amendment and finds that no additional environmental review is required based on the reasons set forth below:

A. No substantial changes are proposed by the Circulation Element Amendment that will require major revisions of the General Plan EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

B. No substantial changes have occurred with respect to the circumstances under which the Circulation Element Amendment will be undertaken which will require major revisions to the General Plan EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

C. No new information of substantial importance has been found that shows any of the following:

1. The Circulation Element Amendment will have one or more significant effects not discussed in the General Plan EIR;

2. Significant effects previously examined will be substantially more severe than shown in the General Plan EIR;

3. Mitigation measures previously found to be infeasible would in fact be feasible and would substantially reduce one or more significant effects of the Circulation Element Amendment; or



4. Mitigation measures which are considerably different from those analyzed in the General Plan EIR would substantially reduce one or more significant effects on the environment.

**SECTION 2. CEQA Findings for Public Safety Element Amendment.** As the decision-making body for the Public Safety Element Amendment, the City Council finds that this action is exempt pursuant to Section 15061(b)(3) of the Guidelines for the California Environmental Quality Act (CEQA), which states that a project is exempt from CEQA if the activity is covered by the common sense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. The approval of the Public Safety Element Amendment simply makes legislative changes to the General Plan to make it consistent with state and federal law. As such, there is no possibility that the Public Safety Element Amendment will have a significant effect on the environment. Therefore, no environmental analysis is required and the City Clerk is directed to file a Notice of Exemption with the County of Riverside.

**SECTION 3. Adoption of Addendum to General Plan EIR.** The City Council hereby approves and adopts the Addendum to the General Plan EIR prepared for the Circulation Element Amendment.

**SECTION 4. General Plan Amendment Findings.** Based on the entire administrative record before the City Council, including all written and oral evidence presented to the City Council, the City Council hereby makes and adopts the following findings:

A. The General Plan Amendment is in the public interest and would not be detrimental to public health, safety and welfare for the following reasons:

(i) The proposed Circulation Element Amendment would facilitate implementation of the West Ontario Avenue Widening Project by amending the Citywide Roadway Plan within Circulation Element of the General Plan. While the requested amendment would only amend an exhibit within the Circulation Element and does not, in and of itself, propose any new development, it will facilitate the West Ontario Avenue Widening Project, which would, among other things, serve to alleviate an existing traffic bottleneck, thereby improving the safety and flow of traffic through the City.

(ii) The proposed Public Safety Element Amendment would update language describing the City's adopted Local Hazard Mitigation Plan, which will bring the General Plan into compliance with federal law (the Stafford Act) and state law (Assembly Bill 2140) and thereby make the City eligible for both federal and state funding intended to address the public health, safety and welfare following natural or human-caused disasters.

B. The General Plan Amendment is internally consistent with the elements of the General Plan, including the goals and polices stated therein, for the following reasons:

(i) The Circulation Element Amendment implements the City’s West Ontario Avenue Widening Project to improve the flow of traffic through the City, improve or complete missing roadside infrastructure, and create continuity in the design of vehicular and pedestrian infrastructure. This is consistent with General Plan Circulation Element Goal CE-2, which is to move people, goods and resources throughout Corona in a manner that is supportive of the land use in a safe and efficient circulation system and that reduces regional cut-through traffic in the City.

(ii) The Public Safety Element Amendment is consistent with General Plan Public Safety Goal PS-3, because it ensures that the health, safety, and general welfare of residents and visitors of the City of Corona, including the overall health of the natural environment, is provided through enforcement of a valid Local Hazard Mitigation Plan that complies with federal and state law.

(iii) The Public Safety Element Amendment is consistent with General Plan Public Safety Goal PS-11, because it identifies effective emergency responses to disasters through the Local Hazard Mitigation Plan intended to limit the loss of life, curtail property damage and social dislocation, enhance emergency preparedness through community education and self-help programs, and minimize damages and injuries.

(iv) The Public Safety Element Amendment is consistent with General Plan Public Safety Policy PS-11.2, because it seeks to maintain emergency and hazard mitigation plans; update and define roles of city departments and other partnering agencies in the event of an emergency or disaster, thus ensuring interagency coordination and collaboration with the Operational Area.

(v) The Public Safety Element Amendment is consistent with General Plan Public Safety Policy PS-11.10, because it implements amendments to the City’s Local Hazard Mitigation Plan resulting from the City’s participation in the review and update of the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan every five years in coordination with all participating jurisdictions and Riverside County Emergency Management Department.

**SECTION 5. Tentative Approval of General Plan Amendment GPA2024-0002.** The General Plan Amendment (GPA2024-0004) is hereby tentatively approved and the General Plan shall be amended as shown in Exhibit “B” attached hereto, subject to final approval of the General Plan Amendments for Cycle 2 of calendar year 2025.

**SECTION 6. Final Approval.** The General Plan Amendment GPA2024-0002 shall become effective upon final approval of the General Plan Amendments for Cycle 2 of calendar year 2025.

**SECTION 7. Custodian of Records.** The documents and materials that constitute the record of proceedings on which the findings set forth in this Resolution have been based are

located at City of Corona City Hall, 400 S. Vicentia Avenue, Corona, California 92882. The custodian for these records is Joanne Coletta, Planning and Development Director.

**SECTION 8.** This Resolution shall take effect immediately upon its adoption.

**PASSED, APPROVED AND ADOPTED** this 19<sup>th</sup> day of March, 2025.

\_\_\_\_\_  
Mayor of the City of Corona, California

**ATTEST:**

\_\_\_\_\_  
City Clerk of the City of Corona, California

**CERTIFICATION**

I, Sylvia Edwards, City Clerk of the City of Corona, California, do hereby certify that the foregoing Resolution was regularly introduced and adopted by the City Council of the City of Corona, California, at a regular meeting thereof held on the 19<sup>th</sup> day of March, 2025, by the following vote:

**AYES:**

**NOES:**

**ABSENT:**

**ABSTAINED:**

**IN WITNESS THEREOF**, I have hereunto set my hand and affixed the official seal of the City of Corona, California, this 19<sup>th</sup> day of March, 2025.

\_\_\_\_\_  
City Clerk of the City of Corona, California

[SEAL]

**EXHIBIT "A"**  
**GENERAL PLAN EIR ADDENDUM**

**GPA2022-0002**

**(SEE ATTACHED 293 PAGES)**

August 2024 | Addendum to the Corona General Plan Technical Update EIR  
State Clearinghouse No. 2018081039

# WEST ONTARIO AVENUE WIDENING PROJECT

City of Corona

*Prepared for:*

**City of Corona**

400 South Vicentia Avenue,  
Corona, California 92882  
951.736.2262

*Prepared by:*

**PlaceWorks**

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# 1. Addendum to the Certified General Plan EIR

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## 1.1 BACKGROUND, PURPOSE, AND SCOPE

This document is an addendum to the Corona General Plan Technical Update Environmental Impact Report (General Plan EIR, EIR), certified on June 3, 2020 (State Clearinghouse Number 2018081039). The addendum demonstrates that the analysis in the General Plan EIR adequately addresses the potential physical impacts associated with the West Ontario Avenue Widening Project (proposed project) and that none of the conditions exist as described in the California Environmental Quality Act (CEQA) Guidelines, Section 15162, that would require preparation of a subsequent EIR or negative declaration.

This addendum relies on the environmental analysis in the General Plan EIR. In accordance with CEQA Guidelines Sections 15148 and 15150, this addendum incorporates the 2020 General Plan EIR (and its constituent parts) by reference. All documents incorporated by reference are available for review on the City's website: <https://www.coronaca.gov/government/departments-divisions/planning-division/general-plan-update> or in person at the City of Corona Planning Division at 400 South Vicentia Avenue, Corona, California, 92882.

## 1.2 ENVIRONMENTAL SETTING

### 1.2.1 Project Location

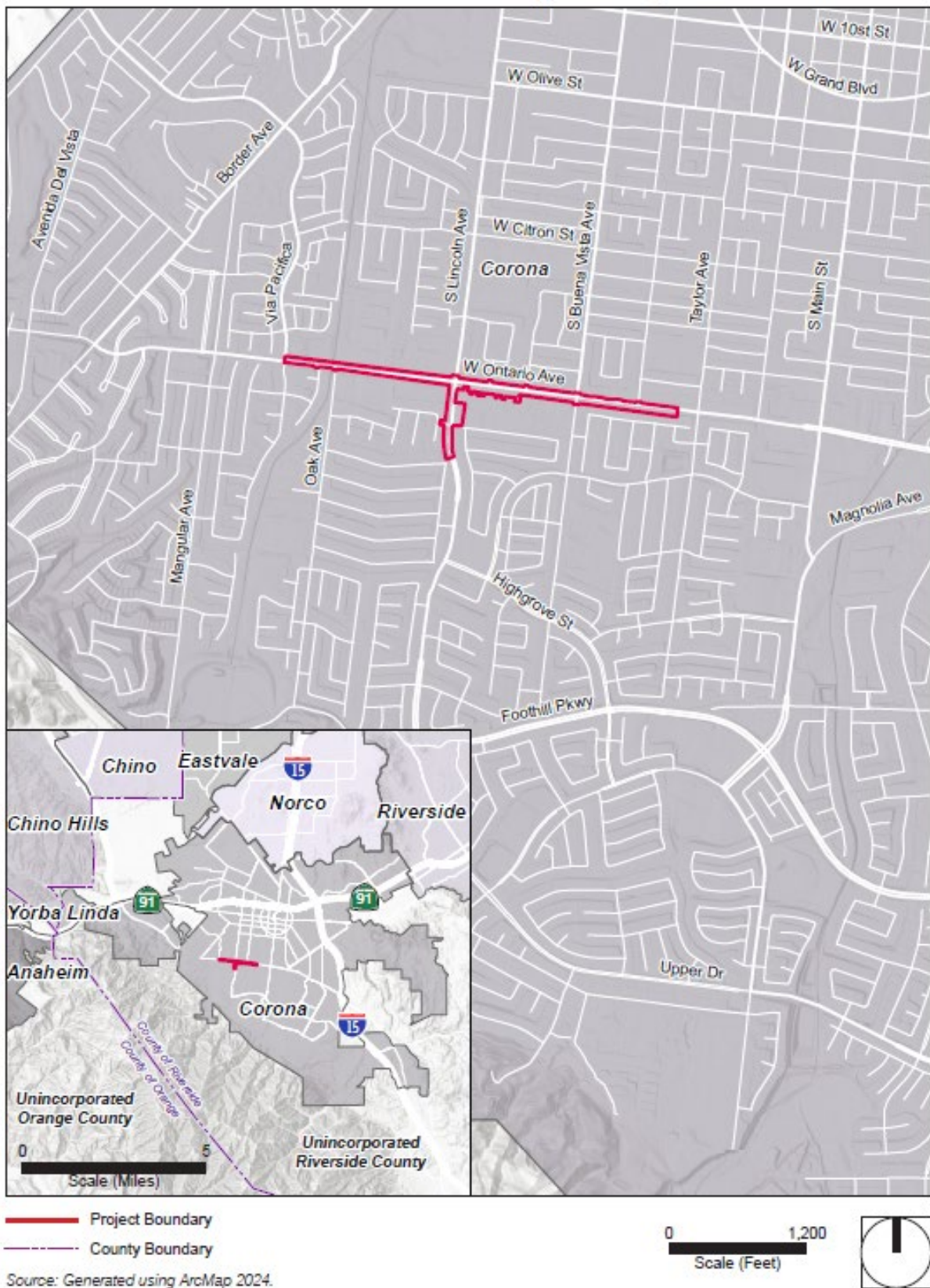
The City of Corona is in the northwestern portion of Riverside County, near the convergence of Los Angeles, Orange, and Riverside Counties, 45 miles southeast of the City of Los Angeles. The City is bordered by the City of Norco to the north, the City of Riverside to the east, and Riverside County to the west and south. The Cleveland National Forest, to the south/southwest, and the Prado Basin, to northeast, border the City.

### 1.2.2 Project Site

The project site consists of West Ontario Avenue, from the intersection of Via Pacifica to approximately 265 feet before the intersection of Taylor Avenue, and South Lincoln Avenue from the intersection of West Ontario Avenue to Millbrook Road; the project site consists of approximately 20.13 acres. Figure 1, *Regional and Local Location*, shows the location of the project site in its regional and local contexts.

# 1. Addendum to the Certified General Plan EIR

**Figure 1 - Regional and Local Location**



## 1. Addendum to the Certified General Plan EIR

### 1.2.3 Existing and Surrounding Land Uses

The project site is a four-lane roadway; a vacant parcel within the project site is at the intersection of South Lincoln Avenue and Othello Lane. The project site is surrounded by developed uses, predominantly residential uses, as well as commercial, recreational, and institutional uses. Figure 3, *Aerial Photograph*, shows the existing and surrounding uses from an aerial view, and Figure 4, *Project Site Photographs*, and Figure 5, *Surrounding Area Photographs*, show the existing and surrounding uses.

## 1.3 PROJECT DESCRIPTION

### 1.3.1 Proposed Project

#### *General Plan Amendment*

The focus of the proposed project is to widen West Ontario Avenue from a four-lane roadway to a six-lane roadway to accommodate existing and future traffic; this requires a General Plan Amendment to reflect the change in roadway classification. Figure 6, *Existing and Proposed Roadway Plan*, shows the existing and proposed roadway classification for the project site.

#### *Construction*

The proposed project would construct raised landscaped median islands on West Ontario Avenue from South Main Street to South Lincoln Avenue, as designated in the South Corona Community Facilities Plan. Additionally, the proposed project would complete all missing civil improvements, such as curb and gutter, parkways, sidewalks, driveway approaches, streetlights, catch basins, retaining walls as needed, and utility relocations, on the south side of West Ontario between South Lincoln Avenue and Conejo Street and the east side of South Lincoln Avenue between West Ontario Avenue and Othello Lane. The proposed project would modify the existing signals at the intersections of West Ontario Avenue and South Lincoln Avenue and West Ontario Avenue and Oak Avenue to align with the ultimate street improvements and lane configurations.

Other proposed improvements include constructing a signalized intersection at South Lincoln Avenue and Othello Lane and provide fiberoptic communications to the existing Traffic Management System hub cabinet at West Ontario Avenue and South Lincoln Avenue, constructing ADA-compliant curb ramps at intersections within the project site, extending the existing 8-inch polyvinyl chloride (PVC) reclaimed water main line from the intersection of West Ontario Avenue and South Lincoln Avenue to West Ontario Avenue and South Vicentia Avenue, converting the existing landscape meters from potable water to reclaimed water, constructing sewer laterals for the properties that would be directly affected by the proposed project between South Lincoln Avenue and Conejo Street from West Ontario Avenue to the right-of-way limit on the south side of West Ontario Avenue, and resurfacing West Ontario Avenue and restriping lane configurations to reflect the proposed improvements. Moreover, the property at 2201 South Lincoln Avenue would be modified to accommodate the widening of West Ontario Avenue, however, no residents would be displaced.

Construction is anticipated to last 9 months and will involve the use of equipment such as dump trucks, excavator, trenching machine, bulldozer, heavy roller, jack hammers, cement truck and pumps, roller and asphalt

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grinder. Approximately 1,200 cubic yards of material will be exported. Excavation is anticipated to a depth of 4-8 feet in some areas to enable the installation of utilities. Overall, however, the excavation is not expected to go below 3-4 feet along the construction widening route. Section 15.36.130 Time of Grading Work, in the City's Municipal Code limits the time and days of construction to "7:00 a.m. and 8:00 p.m. Monday through Saturday, excluding holidays, and from 10:00 a.m. to 6:00 p.m. on Sundays and holidays." The construction project will remove 30 trees that will be addressed in accordance with the Section 12.22 Community Urban Forest and Landscape Guidelines. The trees will either be replaced within the construction area, or in parks as directed by the City's arborist.

In addition to the construction project, the City intends to grind and overlay a portion of Ontario Avenue from Oak Avenue through the intersection of Via Pacifica as part of the City's road maintenance program. (See Figure 2 Ontario Avenue Overlay) While this aspect of the project may occur at the same time as the construction, it may also be delayed based on funding.



**Figure 2:** Portion of W. Ontario Avenue between Oak Avenue and Via Pacifica. Improvements include grind and overlay, and possibly sidewalk and/or access improvement at the intersections.

### 1.3.2 Modifications to the Certified EIR

The following text is modified to indicate changes to the certified EIR using underline for revised or new language or ~~strikeout~~ for deletions.

Add the following after the third bullet on page 5.17-1 of the certified EIR.

- October 23, 2023, Ontario Avenue Widening Vehicle Miles Traveled (VMT) Analysis Memorandum.

The last bullet on page 5.17-7 of the certified EIR is amended as follows:

- West Ontario Avenue is classified as a two-lane collector from Paseo Grande to Mangular Avenue and is classified as a four-lane major arterial from Mangular Avenue to Oak Avenue ~~South Main Street~~. From Oak

## 1. Addendum to the Certified General Plan EIR

Avenue to South Main Street, the road is classified as a six-lane arterial. The road continues as a six-lane arterial to I-15 however the name changes to East Ontario Avenue after the intersection at South Main Street. At From South Main Street to I-15, the road name changes to East Ontario Avenue and is classified as a six-lane major arterial. The roadway is a major east-west corridor that provides access to the neighboring City of El Cerrito and connects to I-15.

Page 5.17-40 of the certified EIR is amended as follows:

### *Cumulative Analysis*

The City of Corona has adopted a threshold of a no net increase in VMT compared to the current General Plan as the cumulative impact criteria. Since the Current General Plan and proposed General Plan Update have the same land use assumptions, the only differences in the scenarios are the road diet on 6th Street, which reduces the number of lanes on 6th Street from four to two in the proposed project.

Table 5.17-9, *Cumulative VMT/SP Analysis*, identifies that the project would result in a slight ~~(0.03~~ 0.01 percent increase in VMT/SP compared to the current General Plan. The traffic modeling is revised to reflect the Riverside Transportation Model (RIVCOM) that was updated following certification of this EIR. The previous table used the Corona General Plan Model with cumulative year 2040, the new table uses the RIVCOM information that has a future year 2045. More recent traffic data, and updated regional traffic model with slightly different functionality, and a future year 5 years after certification that accounts for 5 additional years of growth, results in the revised Table 5.17-9. The results of the modeling estimates indicate that vehicles are selecting a slightly longer path of travel given the lane reduction in capacity on 6th Street.

The relatively small increase in VMT is consistent with the relatively small decrease in lane miles (the 1.75 lane mile reduction on 6th Street is 0.3 percent of the total lane miles within the model in the City of Corona and 0.002 percent of the total lane miles in the SCAG region). These results are contrary to the theory of induced travel which has found a significant relationship with increasing highway capacity corresponding to increases in VMT. It follows that a reduction in capacity should yield a reduction in VMT for the region. Given the geographic scale of the SCAG region in the CGPM, it is unlikely that the model is sensitive enough to account for effects of induced travel to be accurately reflected in these VMT estimates. The increase in VMT forecasted is within the model standard error and is likely negligible. However, cumulative impacts are conservatively considered significant because the model results show an increase compared to the current General Plan.



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**Table 5.17-9 Cumulative VMT/SP Analysis**

Scenario	Current General Plan		Project		Change	
	Total VMT	Existing VMT/SP	Total VMT	Project VMT/SP	Total VMT	VMT/SP
City of Corona	8,672,884	32.3	8,674,797	32.3	1,913	<0.4
SOI	2,701,420	33.8	2,702,890	33.8	1,470	<0.4
Total City + SOI	11,362,777	32.6	11,366,074	32.6	3,297	<0.4

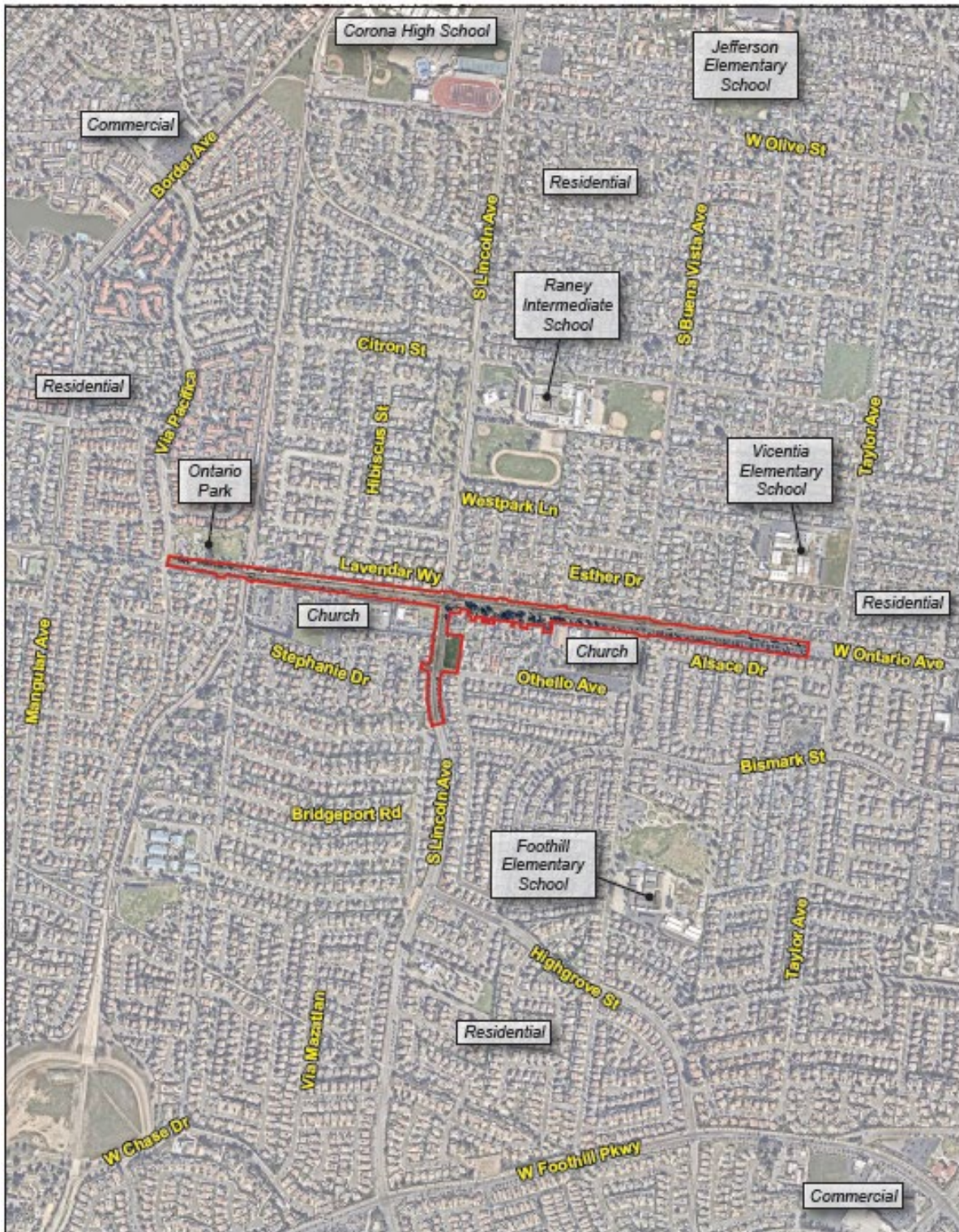
Source: Fehr and Peers 2019b

Boundary	Pop.	Employ.	Service Population	Existing General Plan		Ontario Avenue Amendment (6 Lanes)		Change in VMT	
				Total VMT	VMT/SP	Total VMT	VMT/SP	Total VMT	VMT/SP
City of Corona	182,465	91,326	273,791	11,112,259	40.59	11,110,454	40.58	-1,805	-0.01
SOI	45,108	9,608	54,716	2,011,187	36.76	2,010,737	36.75	-451	-0.01
Total City+SOI	227,573	100,934	328,507	13,123,446	39.95	13,121,191	39.94	-2,256	-0.01

Source: Fehr and Peers 2024h

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Figure 3 - Aerial Photograph



Project Boundary

0 1,200  
Scale (Feet)



Source: Nearmap 2024.



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Figure 4 - Project Site Photographs



Photo 1. View of South Lincoln Avenue and Othello Lane looking North.



Photo 2. View of Vacant Land from South Lincoln Avenue.



Photo 3. View of West Ontario Avenue looking East.



Photo 4. View of West Ontario Avenue near Taylor Avenue looking West.



Photo 5. View of West Ontario Avenue and Via Pacific looking East.

Project Boundary



0 875  
 Scale (Feet)

Source: Nearmap 2024.



1. Addendum to the Certified General Plan EIR

Figure 5 - Surrounding Area Photographs



Photo 1. View of Commercial Uses on West Ontario Avenue looking South.



Photo 3. View of Ontario Park from West Ontario Avenue looking North.



Photo 2. View of Residences on Othello Lane looking southwest.



Photo 4. View of Residences at South Lincoln Avenue and West Ontario Avenue.

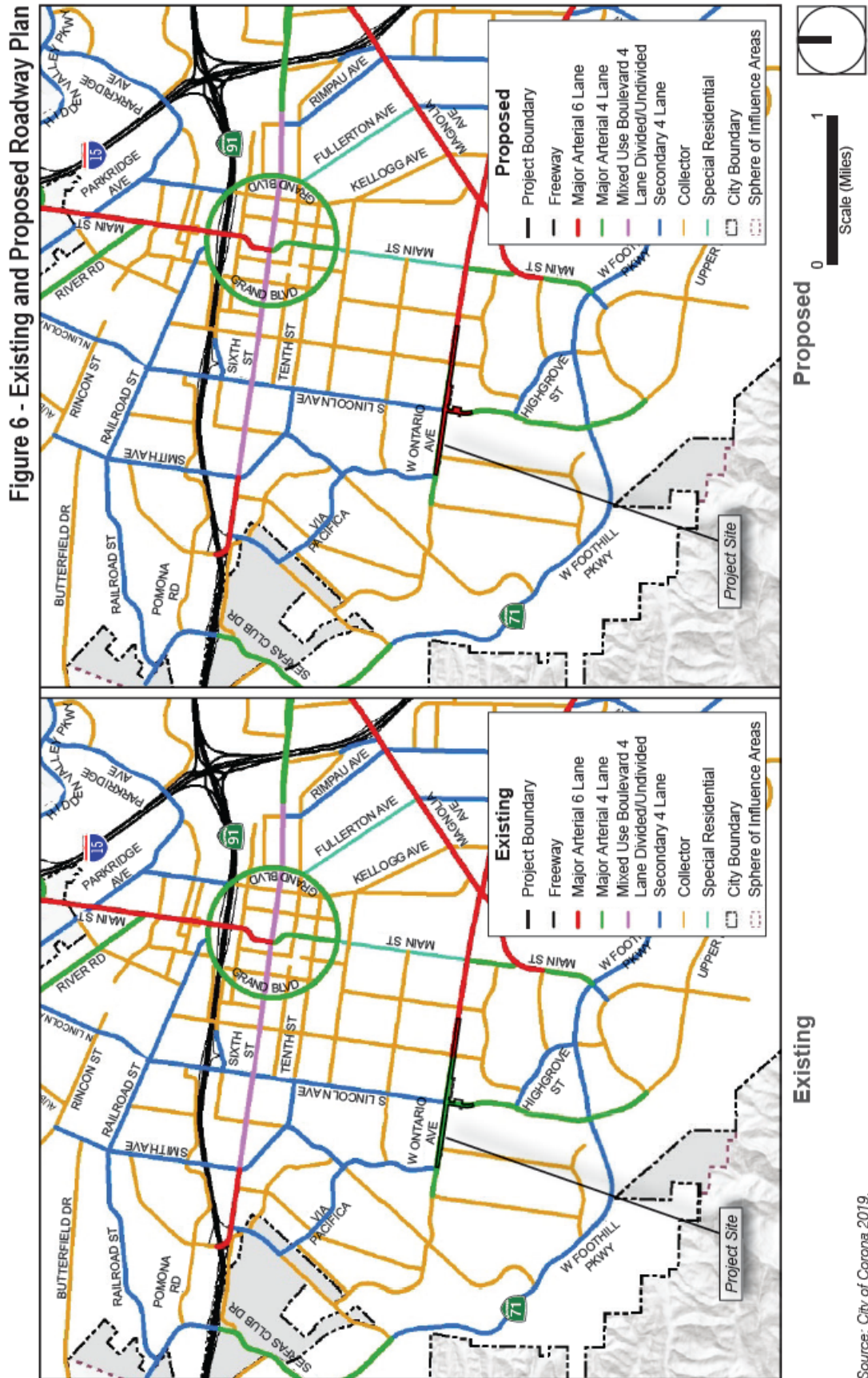
Project Boundary



0 875  
Scale (Feet)

Source: Nearmap 2024.

1. Addendum to the Certified General Plan EIR



## 1. Addendum to the Certified General Plan EIR

### 1.4 PREVIOUS ENVIRONMENTAL DOCUMENTATION

The 2020 General Plan EIR found that with the implementation of policies from the General Plan, mitigation measures, and compliance with regulations, there would be less than significant impacts related to aesthetics, biological resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, population and housing, public services, recreation, tribal cultural resources, utilities and service systems, and wildlife.

Table 1, *General Plan EIR Significant and Unavoidable Impacts and Impacts of the Proposed Project*, lists the significant and unavoidable impact determinations of the General Plan EIR and compares the resulting impacts of the proposed project to those determinations. The General Plan EIR determined that implementation of the General Plan would result in significant and unavoidable impacts to agriculture and forestry resources, air quality, cultural resources, greenhouse gas emissions, land use and planning, mineral resources, noise, transportation. As described below, the proposed project would be within the scope of analysis of the General Plan Update identified in the 2020 Certified EIR. The proposed project would incorporate all applicable mitigation measures for significant and unavoidable impacts and would not create a new significant impact or a substantial increase in the severity of previously identified effects.



## 1. Addendum to the Certified General Plan EIR

**Table 1 General Plan EIR Significant and Unavoidable Impacts and Impacts of the Proposed Project**

Environmental Topic	Significant and Unavoidable Impact Determination	Resulting Impact of the Proposed Project
<b>Agriculture and Forest Resources</b>	<p>Impact 5.2-1: Development of the proposed project would convert Farmland to non-agricultural use.</p> <p>Impact 5.2-2: Development of the proposed project in the SOI would convert Williamson Act contract land to non-agricultural use.</p>	<p>The project site is within the City boundaries and is developed and surrounded by developed uses. As shown Figure 5.2-1, <i>Agricultural Resources</i>, of the 2020 General Plan EIR, there is no land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site. Therefore, the proposed project would not impact agricultural lands. The proposed project would have no impacts on forestlands because there are no lands that qualify as forest or timberland.</p>
<b>Air Quality</b>	<p>Impact 5.3-1: The additional population growth forecasted for the General Plan Update and the associated emissions would not be consistent with the assumptions of the Air Quality Management Plan.</p> <p>Impact 5.3-2: Construction activities associated with future development that would be accommodated under the General Plan Update could generate short-term emissions in exceedance of SCAQMD's threshold criteria.</p> <p>Impact 5.3-3: Implementation of the General Plan Update would generate long-term emissions in exceedance of SCAQMD's threshold criteria.</p> <p>Impact 5.3-4: Operation of industrial and warehousing land uses accommodated under the General Plan Update could expose sensitive receptors to substantial toxic air contaminant concentrations.</p> <p>Impact 5.3-5: Development and operation of land uses accommodated by the General Plan Update could generate emissions that exceed the LSTs and expose sensitive receptors to substantial criteria air pollutant concentrations.</p>	<p>The proposed project would accommodate future growth within the City. The physical changes as a result of the proposed project would generate construction-related emissions of criteria air pollutants and precursors. The proposed project would not include industrial or warehouse projects; the proposed project includes roadway improvements. The proposed project could result in exposure of sensitive receptors due to construction-related toxic air contaminants. However, construction activities would occur throughout the project site and would not be focused in one location; therefore, no one receptor would be exposed to pollutant levels for long periods of time; construction would be temporary. Impacts of the proposed project would be similar to those of other roadway improvements analyzed under the EIR.</p>
<b>Cultural Resources</b>	<p>Impact 5.5-1: Buildout of the City of Corona General Plan could impact historic resources.</p>	<p>As detailed in Section 2, <i>Findings</i>, of this addendum, the roadways within the project site and the residence at 2201 South Lincoln Avenue are not considered historic resources. Therefore, the proposed project would not impact historic resources within the project site.</p>
<b>Greenhouse Gas Emissions</b>	<p>Impact 5.8-1: Implementation of the proposed General Plan Update would result in a decrease in GHG emissions in horizon year 2040 from existing baseline and is projected to meet the GHG reduction target established under SB 32, but may not meet the long-term GHG reduction goal under Executive Order S-03-05.</p>	<p>The proposed project would accommodate future growth in the City. While construction activities would generate greenhouse gas emissions, construction would be temporary and similar to those of other roadway improvements analyzed under the EIR.</p>
<b>Land Use and Planning</b>	<p>Impact 5.11-2: Implementation of the proposed General Plan Update could conflict with the Corona Municipal Airport ALCUP.</p>	<p>The project site is not within the Corona Municipal Airport influence area boundary as shown in Figure 5.9-2, <i>Corona Municipal Airport Compatibility Factors</i>, of the EIR; therefore, the proposed project would not conflict with the Corona Municipal Airport ALCUP.</p>

## 1. Addendum to the Certified General Plan EIR

**Table 1 General Plan EIR Significant and Unavoidable Impacts and Impacts of the Proposed Project**

Environmental Topic	Significant and Unavoidable Impact Determination	Resulting Impact of the Proposed Project
<b>Mineral Resources</b>	Impact 5.12-1: Project implementation would not result in the loss of availability of known mineral resource.	The project site is within MRZ-3, as shown in Figure 5.12-1, <i>Mineral Resources Construction Aggregate</i> , of the EIR. MRZ-3 is a zone where the significance of mineral deposits cannot be determined by the available data. The project site and surrounding uses are developed. Therefore, the proposed project would not impact mineral resources.
<b>Noise</b>	Impact 5.13-1: Construction activities associated with buildout of the proposed project would result in a temporary increase noise levels at sensitive receptors.	The proposed project could result in noise exposure at sensitive receptors due to construction activities. However, construction activities would occur throughout the project site and would not be focused in one location; therefore, no one receptor would be exposed to construction noise for long periods of time; construction would be temporary. Impacts of the proposed project would be similar to those of other roadway improvements analyzed under the EIR.
<b>Transportation</b>	Impact 5.17-2: Project-related trip generation in combination with existing and proposed cumulative development would result in designated road and/or highways exceeding the Congestion Management Agency service standards.  Impact 5.17-3: Project-related trip generation in combination with existing and proposed cumulative development would exceed the City's VMT threshold and would be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).	The proposed project would accommodate future growth in the City. As detailed in Section 2, <i>Findings</i> , of this addendum, the proposed project would result in an increase in VMT of 0.05 percent which is not considered substantial. Therefore, the proposed project would result in similar impacts to those analyzed in the EIR.

### 1.5 REGULATORY SETTING

According to CEQA Guidelines Section 15164(a), an addendum shall be prepared if some changes or additions to a previously adopted EIR are necessary, but none of the conditions in Sections 15162(a)(1) to (3) calling for the preparation of subsequent EIR have occurred. As stated in CEQA Guidelines Section 15162 (Subsequent EIRs and Negative Declarations):

When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

*The proposed project would not make any changes to the land use designation(s) or development assumptions analyzed in the General Plan EIR. Table 1 of this addendum lists the significant impacts identified in the General Plan EIR, and indicates that the impacts of the proposed project would be similar to those analyzed in the General Plan EIR.*

## 1. Addendum to the Certified General Plan EIR

- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

*The General Plan EIR was certified in 2020, and while development has occurred since certification, the project site is in a developed area of the City. All development that has occurred has been consistent with the certified General Plan. The proposed project would widen West Ontario Avenue and construct associated improvements in order to accommodate future growth in the City. There have been no significant changes in the environment, or severity of the impacts identified in the General Plan EIR and in Table 1 of this addendum.*

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or negative declaration was adopted, shows any of the following:
- (a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
  - (b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - (d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

*The project proposes to widen West Ontario Avenue and construct associated improvements, but would not change the land use designations in the project site. The proposed project would require a General Plan Amendment to reflect the change in roadway classification. Therefore, the development yield estimates contained in Table 3-4 of the General Plan remain intact. As all impacts remain as evaluated in the EIR, there is no need for additional mitigation measures.*

As the proposed project would not change land use designations or development capacity beyond what was analyzed in the General Plan EIR, it will not trigger any of the conditions in Sections 15162(a)(1) to (3).

The following analysis provides the substantial evidence required by Section 15164(e) to support the finding that a subsequent EIR is not required and an addendum to the General Plan EIR is the appropriate environmental document to address changes to the proposed project.

## 1. Addendum to the Certified General Plan EIR

As stated in CEQA Guidelines Section 15164, addendum to an EIR:

- (a) The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.
- (b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.
- (c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.
- (d) The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.
- (e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

As demonstrated in this addendum, the proposed project would not result in impacts that differ from the General Plan EIR and would not trigger the need for preparation of a subsequent or supplemental EIR under the criteria in Sections 15162(a) and 15163(a). The impacts of the proposed project are within the levels and types of environmental impacts disclosed in the General Plan EIR.

Since this addendum does not identify new or substantially greater significant impacts, circulation for public review and comment is not necessary (CEQA Guidelines Section 15164[c]). However, the Corona City Council will consider this addendum at a public meeting prior to the approval of the proposed project (CEQA Guidelines Section 15164[d]). If the Corona City Council approves this addendum, it shall be required to make findings by way of a resolution, including a finding that this addendum provides the basis and substantial evidence for the decision not to prepare a subsequent or supplemental EIR (CEQA Guidelines Section 15164[e]).



## 2. Findings

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The General Plan contains policies related to land use; housing; community design; historic resources; economic development; parks, recreation, cultural arts, and education; circulation; infrastructure and utilities; public safety; noise; healthy community; and environmental resources. The General Plan EIR included mitigation measures (see Appendix A of this addendum, *Corona General Plan EIR MMRP*) for the following topics: air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, mineral resources, noise, transportation, and tribal cultural resources. The General Plan policies and the City's existing engineering standards apply to all roadway projects in the General Plan Area, including the project site, and would continue to do so after approval of the proposed project. The discussion in this addendum confirms that the proposed project has been evaluated for significant impacts pursuant to CEQA.

The following identifies the standards in CEQA Guidelines Section 15162 as they relate to the proposed project.

- 1. No substantial changes are proposed in the project which would require major revisions of the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.**

The proposed project would widen West Ontario Avenue and construct associated improvements in the project site. The General Plan identifies West Ontario Avenue as a four-lane major arterial roadway, and the proposed project would change this classification to an arterial six-lane major arterial roadway. As demonstrated below, the proposed project does not change the conclusions of the EIR and would not require revisions to the General Plan EIR due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

### **Biological Resources**

A biological resources assessment was prepared for the proposed project which determined that no impacts to special-status plant species would occur. While the project site is developed, and there is a low potential for crotch bumble bee, due to its status as a Candidate for state listing and presence of suitable habitat, mitigation would be required (see Mitigation Measure BIO-1 through Mitigation Measure BIO-4 of Appendix A) to reduce impacts to less than significant. Additionally, impacts to bat species classified as Species of Special Concern (SSC) or maternity colonies of non-SSC could occur, and therefore mitigation would be required (see Mitigation Measure BIO-1 through Mitigation Measure BIO-4 of Appendix A) to reduce impacts to less than significant. As the proposed project may impact nesting habitat for nesting bird and raptors, mitigation would be required (see Mitigation Measure BIO-2 through Mitigation Measure BIO-4, and Mitigation Measure BIO-7) to reduce impacts to less than significant.

Given that the project site consists of urban/developed and disturbed land covers, no impacts to sensitive natural communities are anticipated to result from the development of the proposed project (ECORP 2024a). Two aquatic features that are potentially jurisdictional to the U.S. Army Corp of Engineers, Regional

## 2. Findings

Water Quality Control Board, and/or California Department of Fish and Wildlife occur within the project site. Should impacts to these features be necessary, a formal aquatic resources delineation would be conducted to determine if it is subject to the jurisdiction of these agencies, and coordination would be required. Additionally, preparation of a Determination of Biologically Equivalent or Superior Preservation would be required to satisfy the Multiple Species Habitat Conservation Plan (MSHCP) requirements for impacts to riverine areas within the project site if impacts are unavoidable. The proposed project would implement Mitigation Measure BIO-5 to reduce impacts (see Appendix A).

The project site is developed and surrounded by developed uses with frequent roadway disturbances. As such, no migratory wildlife corridors were identified within the project site and no impacts are expected to occur (ECORP 2024a). Additionally, the project site is located within the planning area for the MSHCP, but is outside of any cell groups, criteria cells, and subunit designations. In accordance with the MSHCP, the proposed project would prepare a Determination of Biologically Equivalent or Superior Preservation and implement Mitigation Measure BIO-5 (see Appendix A) to reduce impacts to the aquatic features in the project site. The project site is not within a Narrow Endemic Plant Species Survey Area and Urban/Wildland Interface, in accordance with MSHCP Section 6.1.3, Section 6.1.4, respectively. A small portion of the project site is within a burrowing owl survey area as designated by the MSHCP; however, according to the field reconnaissance survey for potential burrowing owl habitat, neither the area designated as a burrowing owl survey area nor the remainder of the project site offers suitable habitat for burrowing owl (ECORP 2024a). Therefore, in accordance with Section 6.3.2 of the MSHCP, no further surveys are required.

The proposed project would not result in substantially more severe or new significant impacts pertaining to biological resources, and upon compliance with the MSHCP, state and federal regulations, and implementation of the mitigation measures from the General Plan EIR, impacts would be less than significant.

### **Cultural Resources**

According to the Archaeological Resources and Architectural History Report, five historic built environment resources were identified within the project site, including the residential property at 2201 South Lincoln Avenue. These resources were evaluated for their significance, and it was determined that none of them are considered historical resources for the purposes of CEQA. No direct or indirect impacts to historical resources were identified. While the project site has been previously disturbed, and any subsurface archaeological deposits would have been discovered during construction, there is always a possibility that subsurface cultural resources may be present (ECORP 2024b). Implementation of Mitigation Measure CUL-5 (see Appendix A) would reduce potential impacts to archaeological resources to less than significant.

The proposed project would not result in substantially more severe or new significant impacts pertaining to cultural resources, and upon compliance with state and federal regulations, and implementation of the Mitigation Measure CUL-5 from the General Plan EIR, impacts would be less than significant.

## 2. Findings

### Vehicle Miles Traveled

Using the same method of analysis as the General Plan EIR, the VMT slightly decreases. This is because the project removes an existing bottleneck along Ontario, which makes travel for residents more convenient, slightly reducing trip lengths as they no longer need to avoid this segment. While the small project adds incrementally to the overall roadway network and could increase VMT regionally, including regional through trips that cut through Corona, the regional VMT trips are not included in the General Plan EIR analysis. As such, the proposed project reduces overall VMT as reported in the General Plan EIR, and therefore there are no new or increased impacts.

- 2. There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete demonstrating that the project will have one or more significant effects not discussed in the previous EIR.**

As shown in Table 1 and discussed above, the proposed project would not result in new or substantially more significant impacts than what was analyzed in the 2020 General Plan EIR. Additionally, the policies and mitigation measures identified in the General Plan EIR (see Appendix A of this addendum) would continue to apply to all development in the City, including the proposed project, and would have the same mitigating effects as disclosed in the General Plan EIR. Given the recent certification of the General Plan EIR and the proposed project's consistency with the General Plan land uses, there is no new information that was not known and could not have been known at the time the General Plan EIR was certified demonstrating that the proposed project would have one or more significant effects not discussed in the previous EIR. Impacts would be the same as those disclosed in the certified General Plan EIR.

- 3. There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete demonstrating that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.**

As shown in Table 1 and discussed above, the proposed project would not result in new or substantially more significant impacts than what was analyzed in the 2020 General Plan EIR. The proposed project would not result in changes to the City's adopted land use plan. However, a General Plan Amendment would be required to reflect the change in roadway classification from a four-lane major arterial to a six-lane major arterial. All policies and mitigation measures identified in the General Plan EIR would continue to apply to all development in the City, including the proposed project, and would have the same mitigating effect as disclosed in the General Plan EIR. The proposed project would not change the assumptions described in the General Plan EIR, and therefore would not substantially change the conclusions of the EIR or require new mitigation measures.

- 4. There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete demonstrating that mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant**

## 2. Findings

**effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.**

The proposed project does not create new impacts or the need for additional mitigation measures. The proposed project would widen West Ontario Avenue and construct associated improvements, and does not propose any land use changes. As such, the resulting impacts would be similar as those disclosed in the General Plan EIR. Therefore, no new mitigation measures or alternatives to the proposed project would be required.

## 3. References

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ECORP Consulting, Inc. (ECORP). 2024a, February. Biological Technical Report and MSHCP Consistency Analysis. Appendix B.

\_\_\_\_\_. 2024b, February. Archaeological Resources and Architectural History Report. Appendix C.

Fehr and Peers. 2023, October 23. Ontario Avenue Widening Vehicle Miles Traveled (VMT) Analysis Memorandum. Appendix D.

## Appendix

# Appendix A. Corona General Plan EIR MMRP

March 2020 | Mitigation Monitoring and Reporting Program  
State Clearinghouse No. 2018081039

# CORONA GENERAL PLAN TECHNICAL UPDATE

for City of Corona

*Prepared for:*

**City of Corona**

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# 1. Introduction

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## 1.1 PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been developed to provide a vehicle by which to monitor mitigation measures and conditions of approval outlined in the Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2018081039. The Mitigation Monitoring and Reporting Program has been prepared in conformance with Section 21081.6 of the Public Resources Code and Corona Monitoring Requirements. Section 21081.6 states:

- (a) When making findings required by paragraph (1) of subdivision (a) of Section 21081 or when adopting a mitigated negative declaration pursuant to paragraph (2) of subdivision (c) of Section 21080, the following requirements shall apply:
  - (1) The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead or responsible agency, prepare and submit a proposed reporting or monitoring program.
  - (2) The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.

## 1.2 PROJECT LOCATION

The City of Corona is located in the northwestern portion of Riverside County, near the convergence of Los Angeles, Orange, and Riverside Counties, 45 miles southeast of the City of Los Angeles. Corona is located in a valley, framed by mountains and the Prado Basin. Original settlements focused development in an area within and adjacent to Grand Boulevard. The City is bordered by the City of Norco to the north, the City of Riverside to the east, and Riverside County to the west and south. The Cleveland National Forest to the south/southwest and the Prado Basin to northeast border the City; these natural areas are barriers to the future outward growth of Corona.

Two geographical areas are within the “planning area” covered by the Corona General Plan, the City’s corporate limits (City) and its Sphere of Influence (SOI). As defined by the City and the Riverside County Local Agency Formation Commission, the SOI represents the logical service area of the city. Corona includes 39 square miles,

## 1. Introduction

plus an additional 32 square miles within its SOI. The SOI includes three geographically distinct areas to the west, east, and south of Corona's incorporated borders:

- The **West Sphere** encompasses the Prado Basin, Coronita, and the Foothill area.
- The **East Sphere** includes the areas of Home Gardens, Eagle Valley East, and El Cerrito.
- Temescal Canyon makes up the **South Sphere**.

### 1.3 PROJECT DESCRIPTION

The proposed General Plan is an interim technical update of the current General Plan, with the exception of the latest updated Housing Element. The update includes the following chapters with individual elements that address all the required topics in state law:

- Land Use Element
- Housing Element
- Community Design Element
- Historic Resources Element
- Economic Development Element
- Parks, Recreation, Cultural Arts, & Education Element
- Circulation Element
- Infrastructure and Utilities Element
- Public Safety Element
- Noise Element
- Healthy Community Element
- Environmental Resources Element

The General Plan Update would result in a potential buildout total of 70,939 housing units, 241,928 residents, 82,191,657 nonresidential square feet, and 106,474 jobs in the City and sphere of influence (SOI). Compared to existing conditions, the proposed project would result in an increase of 11,511 units, 39,298 residents, 26,476,352 nonresidential square feet, and 31,156 jobs in the City and its SOI.

The City of Corona is also proposing to update the City's Climate Action Plan (CAP). The CAP identifies greenhouse gas (GHG) reduction measures that allow the City to continue reductions consistent with the State's interim emissions reduction goal of lowering emissions 40 percent below 1990 levels by 2030 under Senate Bill 32 (SB 32) and long-term goal of 80 percent below 1990 levels by 2050 under Executive Order S-03-05.

### 1.4 ENVIRONMENTAL IMPACTS

#### 1.4.1 Impacts Considered No Impact or Less Than Significant

The EIR identified various thresholds from the CEQA Guidelines among a number of environmental categories that would not significantly impact the proposed project as identified in Chapter 5, *Environmental*

## 1. Introduction

*Analysis*, and therefore, did not require mitigation. Impacts to the following environmental resources were found to be less than significant or no impact:

- Aesthetics
- Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildlife

### **1.4.2 Potentially Significant Adverse Impacts That Can Be Mitigated, Avoided, or Substantially Lessened**

The EIR concluded that the proposed project could result in one or more potentially significant impacts in the following topic areas:

- Biological Resources
- Geology and Soils
- Tribal Cultural Resources

However, the EIR also found that these impacts would be reduced, avoided, or substantially lessened through the implementation of mitigation measures, which are listed in Table 1.

### **1.4.3 Unavoidable Significant Adverse Impacts**

The following impacts would remain significant and unavoidable after implementation of required mitigation, as identified in the EIR:

- Air Quality
- Agricultural and Forestry Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Mineral Resources
- Noise
- Transportation

## 1. Introduction

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## 2. Mitigation Monitoring Requirements

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### 2.1 CATEGORIZED MITIGATION MEASURES/MATRIX

Project-specific mitigation measures have been categorized in matrix format, as shown in Table 1, *Mitigation Monitoring Requirements*. The matrix identifies the environmental factor, specific mitigation measures, schedule, and responsible monitor. The mitigation matrix will serve as the basis for scheduling the implementation of, and compliance with, all mitigation measures.

## 2. Mitigation Monitoring Requirements

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## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)	
<b>AIR QUALITY</b>					
AQ-1	<p>Prior to discretionary approval by the City of Corona for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Corona Community Development Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the City of Corona shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Division. Mitigation measures to reduce construction-related emissions could include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Requiring fugitive-dust control measures that exceed SCAQMD's Rule 403, such as:                             <ul style="list-style-type: none"> <li>– Use of nontoxic soil stabilizers to reduce wind erosion.</li> <li>– Applying water every four hours to active soil-disturbing activities.</li> <li>– Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.</li> </ul> </li> <li>• Using construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Assessment: Project Applicant and City of Corona Planning Division (technical assessment);</li> <li>• Construction Measures: Construction Contractor</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Assessment: Prior to Project Approval</li> <li>• Construction Measures: During Construction Activities</li> </ul>	City of Corona Community Development Department	



## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	<ul style="list-style-type: none"> <li>Ensuring that construction equipment is properly serviced and maintained to the manufacturer's standards.</li> <li>Limiting nonessential idling of construction equipment to no more than five consecutive minutes.</li> <li>Limiting onsite vehicle travel speeds on unpaved roads to 15 miles per hour.</li> <li>Installing wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.</li> <li>Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD's website at <a href="http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/super-compliant-manf-list.pdf?sfvrsn=71">http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/super-compliant-manf-list.pdf?sfvrsn=71</a>.</li> </ul>				
AQ-2	<ul style="list-style-type: none"> <li>Prior to discretionary approval by the City of Corona for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Corona Community Development Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the City of Corona Community Development Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible</li> </ul>	Technical Assessment: Project Applicant and City of Corona Planning Division	Prior to Discretionary Approval	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>mitigation measures to reduce long-term emissions could include, but are not limited to the following:</p> <ul style="list-style-type: none"> <li>• For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.</li> <li>• Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.</li> <li>• Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485).</li> <li>• Provide changing/shower facilities as specified in Section A5.106.4.3 of the CALGreen Code (Nonresidential Voluntary Measures).</li> <li>• Provide bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code.</li> <li>• Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of the CALGreen Code (Nonresidential Voluntary Measures).</li> <li>• Provide facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.</li> <li>• Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers).</li> </ul>				

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	<p>Installation of Energy Star-certified or equivalent appliances shall be verified by Building &amp; Safety during plan check.</p> <ul style="list-style-type: none"> <li>Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Corona and Riverside Transit to ensure that bus pad and shelter improvements are incorporated, as appropriate.</li> </ul>				
AQ-3	<p>Prior to discretionary approval by the City of Corona, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Corona Community Development Department for review and approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the SCAQMD at the time a project is considered, the project applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.</p>	Project Applicant and City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
AQ-4	<p>Prior to discretionary approval by the City of Corona, if it is determined that a development project has the potential to emit nuisance odors beyond the property line, an odor management plan shall be prepared by the project applicant and submitted to the City of Corona Community Development Department for review and approval. Facilities that have the potential to generate nuisance odors include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Wastewater treatment plants</li> <li>• Composting, green waste, or recycling facilities</li> <li>• Fiberglass manufacturing facilities</li> <li>• Painting/coating operations</li> <li>• Large-capacity coffee roasters</li> <li>• Food-processing facilities</li> </ul> <p>The odor management plan shall demonstrate compliance with the South Coast Air Quality Management District's Rule 402 for nuisance odors. The Odor Management Plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (i.e., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document prepared for the development project and/or incorporated into the project's site plan.</p>	Project Applicant and City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	
<b>BIOLOGICAL RESOURCES</b>					
BIO-1	<p>Applicants for future development projects shall include a biological resources survey. The biological resources survey shall be conducted by a qualified biologist. The biological resources survey shall include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• An analysis of available literature and biological databases, such as the California Natural Diversity Database, to</li> </ul>	Project Applicant in consultation with a Qualified Biologist and City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>determine sensitive biological resources that have been reported historically from the proposed development project vicinity.</p> <ul style="list-style-type: none"> <li>• A review of current land use and land ownership within the proposed development project vicinity.</li> <li>• An assessment and mapping of vegetation communities present within the proposed development project vicinity.</li> <li>• An evaluation of potential local and regional wildlife movement corridors.</li> <li>• A general assessment of potential jurisdictional areas, including wetlands and riparian habitats.</li> </ul> <p><b>Habitat Assessment.</b> If the proposed development project site supports vegetation communities that may provide habitat for plant or wildlife species, a focused habitat assessment shall be conducted by a qualified biologist to determine the potential for special status plant and/or animal species to occur within or adjacent to the proposed development project area. Adjoining properties should also be surveyed where direct or indirect project effects, such as those from fuel modification or herbicide application, could potentially extend off-site. If feasible, the habitat assessment should be conducted during nondrought years. Vegetation communities should be classified and mapped to the alliance or association level using classification methods and membership rules according to <i>A Manual of California Vegetation</i>, 2nd edition (2009).</p> <p><b>Focused Surveys.</b> If one or more special status species has the potential to occur within the proposed development project area, focused species surveys shall be conducted to determine the presence/absence of these species to adequately evaluate potential direct and/or indirect impacts to these species. The focused survey shall record the location and boundary of special</p>				

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	<p>status species by use of global positioning system (GPS). The number of individuals in each special status plant population shall be provided as counted (if population is small) or estimated (if population is large). If applicable, information about the percentage of individuals in each life stage, such as seedlings vs. reproductive individuals, should be provided. If feasible, images of the target species and representative habitats should be included to support information and descriptions.</p> <p><b>Preconstruction Surveys.</b> If construction activities are not initiated immediately after focused surveys have been completed, additional preconstruction special status species surveys may be required to ensure impacts are avoided or minimized to the extent feasible. If preconstruction activities are required, a qualified biologist would perform these surveys as required for each special status species that is known to occur or has a potential to occur within or adjacent to the proposed development project area.</p> <p><b>Biological Resources Report.</b> The results of the biological survey for proposed development projects with no significant impacts may be presented in a biological survey letter report. For proposed development projects with significant impacts that require mitigation to reduce the impacts to below a level of significance, the results of the biological survey shall be presented in a biological technical report.</p>				
BIO-2	<p>If sensitive biological resources are identified within or adjacent to the proposed development project area, the construction limits shall be clearly flagged to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Prior to implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.</p>	<p>Qualified Biologist in coordination with the Construction Contractor</p>	<p>Prior to Construction Activities</p>	<p>City of Corona Community Development Department</p>	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
BIO-3	If sensitive biological resources are known to occur within or adjacent to the proposed development project area, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources within and adjacent to the proposed development project area and measures being implemented to avoid and/or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.	Qualified Biologist in coordination with the Construction Contractor	Prior to Construction Activities	City of Corona Community Development Department	
BIO-4	If sensitive biological resources are present within or adjacent to the proposed development project area and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during a portion or all of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City on a project-by-project basis based on applicable experience with the sensitive biological resources that may be impacted.	Qualified Biologist in coordination with the Construction Contractor and the City of Corona Planning Division	During Construction Activities	City of Corona Community Development Department	
BIO-5	The City of Corona shall require applicants of development project that have the potential to affect jurisdictional resources to contract with a qualified biologist to conduct a jurisdictional delineation following the methods outlined in the 1987 USACE <i>Wetland Delineation Manual</i> and the <i>Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region</i> (USACE 2008) to map the extent of wetlands and nonwetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in a wetland delineation report and shall be incorporated into the CEQA document(s) required for approval and permitting of the proposed development project.	<ul style="list-style-type: none"> <li>• Jurisdictional Delineation: Project Applicant in consultation with a Qualified Biologist</li> <li>• Permits: Qualified Biologist in consultation with the regulatory authorities</li> </ul>	<ul style="list-style-type: none"> <li>• Jurisdictional Delineation: Prior to Project Approval</li> <li>• Permits: Prior to Issuance of a Grading Permit</li> </ul>	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	Applicants of development projects that have the potential to impact jurisdictional features, as identified in the wetland delineation letter report, shall obtain permits and authorizations from the Army Corps of Engineers, California Department of Fish and Wildlife, and/or Santa Ana Regional Water Quality Control Board. The regulatory agency authorization(s) would include impact avoidance and minimization measures as well as mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed development project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.				
BIO-6	<p>The City of Corona shall require a habitat connectivity/wildlife corridor evaluation for future development projects that may impact existing connectivity areas and wildlife linkages identified in Figure 5.4-7, <i>Potential Wildlife Movement Corridors</i>, of the Draft EIR, which includes the Bedford Wash to Lake Mathews Estelle Mountain Reserve Corridor. The results of the evaluation shall be incorporated into the project's biological report required under Mitigation Measure BIO-1. The evaluation shall also identify project design features that would reduce potential impacts and maintain habitat and wildlife movement. To this end, the City shall incorporate the following measures, to the extent practicable, for projects impacting wildlife movement corridors:</p> <ul style="list-style-type: none"> <li>• Conduct a habitat connectivity/wildlife corridor evaluation for future development projects.</li> <li>• Adhere to low density zoning standards.</li> <li>• Encourage clustering of development.</li> <li>• Avoid known sensitive biological resources.</li> </ul>	Project Applicant in consultation with a Qualified Biologist and the City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	



## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	<ul style="list-style-type: none"> <li>• Provide shielded lighting adjacent to sensitive habitat areas.</li> <li>• Encourage development plans that maximize wildlife movement.</li> <li>• Provide buffers between development and wetland/riparian areas.</li> <li>• Protect wetland/riparian areas through regulatory agency permitting process.</li> <li>• Encourage wildlife-passable fence designs (e.g., 3-strand barbless wire fence) on property boundaries.</li> <li>• Encourage preservation of native habitat on the undeveloped remainder of developed parcels.</li> <li>• Minimize road/driveway development to help prevent loss of habitat due to roadkill and habitat loss.</li> <li>• Use native, drought-resistant plant species in landscape design.</li> <li>• Encourage participation in local/regional recreational trail design efforts.</li> </ul>				
BIO-7	<p>The City of Corona shall require applicants for future development projects to contract with a qualified biologist to conduct a preconstruction general nesting bird survey within all suitable nesting habitats that may be impacted by active construction during general avian breeding season (February 1 through August 31). The preconstruction surveys shall be conducted no more than 7 days prior to initiation of construction. If no active avian nests are identified within the proposed development project area or within a 300-foot buffer of the proposed development project area, no further mitigation is necessary. If active nests of avian species covered by the Fish and Game Code are detected within the proposed development project area or within a 300-foot buffer of the proposed</p>	Qualified Biologist in coordination with the Construction Contactor	Prior to Construction Activities and During Construction Activities	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	development project area, construction shall be halted until the young have fledged, until a qualified biologist has determined the nest is inactive, or until appropriate mitigation measures that respond to the specific situation have been developed and implemented in consultation with the regulatory agencies. Based on the discretion of the qualified biologist, the 300-foot buffer may be expanded as appropriate to the species.				
<b>CULTURAL RESOURCES</b>					
CUL-1	Prior to any construction activities that may affect historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professionally Qualified Standards (PQS) in architectural history or history. This shall include a records search to determine if any resources that may be potentially affected by the project have been previously recorded, evaluated, and/or designated in the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), or Corona Register of Historic Resources. Following the records search, the qualified architectural historian or historian shall conduct a reconnaissance-level and/or intensive-level survey in accordance with the California Office of Historic Preservation (OHP) guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. Pursuant to the definition of a historical resource under CEQA, potential historical resources shall be evaluated under a developed historic context.	Project Applicant in coordination with an Architectural Historian or Historian	Prior to Project Approval	City of Corona Community Development Department	
CUL-2	To ensure that projects requiring the relocation, rehabilitation, or alteration of a historical resource not impair its significance, the <i>Secretary of the Interior's Standards for the Treatments of Historic Properties</i> shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the PQS. Prior to any construction activities that may affect the	Project Applicant in coordination with an Architectural Historian or Historian	Prior to Construction Activities	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
	historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Corona.				
CUL-3	If a proposed project would result in the demolition or significant alteration of a historical resource, it cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and shall be performed by an architectural historian or historian who meets the PQS. Documentation shall include an architectural and historical narrative; medium- or large-format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historic photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, state, or federal institutions. The specific scope and details of documentation would be developed at the project level.	Project Applicant in coordination with an Architectural Historian or Historian	Prior to Issuance of a Demolition Permit	City of Corona Community Development Department	
CUL-4	If cultural resources that are eligible for listing to the NRHP, CRHR, or Corona Register of Historic Resources are identified within or adjacent to the proposed development, the construction limits shall be clearly flagged to assure impacts to eligible cultural resources are avoided or minimized to the extent feasible. Prior to implementing construction activities, a qualified archaeologist shall verify that the flagging clearly delineates the construction limits and eligible resources to be avoided. Since the location of some eligible cultural resources is confidential, these resources will be flagged as environmentally sensitive areas (ESA).	Qualified Archaeologist in coordination with the Construction Contractor	Prior to Construction Activities	City of Corona Community Development Department	
CUL-5	To determine the archaeological sensitivity for discretionary projects within the City, an archaeological resources assessment shall be performed under the supervision of an	<ul style="list-style-type: none"> <li>Technical Assessment: Qualified Archaeologist in coordination with the</li> </ul>	<ul style="list-style-type: none"> <li>Technical Assessment: Prior to Project Approval</li> </ul>	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>archaeologist that meets the Secretary of the Interior’s Professionally Qualified Standards (PQS) in either prehistoric or historic archaeology. The assessments shall include a California Historical Resources Information System (CHRIS) records search and a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC). The records searches shall determine if the proposed project has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. A Phase I pedestrian survey shall be undertaken in areas that are undeveloped to locate any surface cultural materials.</p> <p>a. If potentially significant archaeological resources are identified through an archaeological resources assessment, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an archaeologist who meets the PQS prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include a Phase III data recovery program that would be implemented by a qualified archaeologist and shall be performed in accordance with the Office of Historic Preservation’s <i>Archaeological Resource Management Reports (ARMR): Recommended Contents and Format</i> (1990) and <i>Guidelines for Archaeological Research Designs</i> (1991).</p> <p>b. If the archaeological assessment did not identify potentially significant archaeological resources within the proposed General Plan area but indicated the area to be highly sensitive for archaeological resources, a qualified archaeologist shall monitor all ground-disturbing</p>	<p>Project Applicant and the City of Corona Planning Division</p> <ul style="list-style-type: none"> <li>Construction Measures: Qualified Archaeologist in coordination with the Construction Contractor</li> </ul>	<ul style="list-style-type: none"> <li>Construction Measures: Prior to and During Construction Activities</li> </ul>		

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>construction and pre-construction activities in areas with previously undisturbed soil. The archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting, and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the PQS. If the discovery proves to be significant, it shall be curated with a recognized scientific or educational repository.</p> <p>c. If the archaeological assessment did not identify potentially significant archaeological resources, but indicates the area to be of medium sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting, and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the on-call archaeologist is contacted. If the discovery proves to be significant, it shall be curated with a recognized scientific or educational repository.</p>				

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)	
<b>GEOLOGY AND SOILS</b>					
GEO-1	<b>High and Low-to-High Sensitivity.</b> In areas designated as having “high” or “low-to-high” sensitivity for paleontological resources, the project applicant shall be required to submit a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). The PRMMP shall be prepared by a Qualified Paleontologist meeting the standards of Society of Vertebrate Paleontology (2010). The plan shall address specifics of monitoring and mitigation based on the project area and project’s construction plan, and shall take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and changes to the regulatory framework at the time of analysis. The PRMMP shall be submitted to the City of Corona’s Community Development Department prior to approval of a grading permit.	Qualified Paleontologist in coordination with the Project Applicant and the City of Corona Planning Division	Prior to Approval of a Grading Permit	City of Corona Community Development Department	
GEO-2	<b>High Sensitivity.</b> Projects involving ground disturbances in previously undisturbed areas mapped as having “high” paleontological sensitivity shall be monitored by a qualified paleontological monitor on a full-time basis, under the supervision of the Qualified Paleontologist. Monitoring shall include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor shall have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, if the fossils are determined to be significant, professionally and efficiently recover the fossil specimens and collect associated data. The paleontological monitor shall use field data forms to record pertinent location and geologic data, measure stratigraphic sections (if applicable), and collect appropriate sediment samples from any fossil localities.	Qualified Paleontologist in coordination with the Construction Contractor	Prior to and During Ground-Disturbing Activities	City of Corona Community Development Department	
GEO-3	<b>Low-to-High Sensitivity.</b> Projects involving ground disturbance in previously undisturbed areas mapped with “low-to-high” paleontological sensitivity shall require monitoring if construction activity exceeds the depth of the low-sensitivity surficial	Qualified Paleontologist in coordination with the Construction Contractor	Prior to and During Ground-Disturbing Activities	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	sediments. The underlying sediments may have high sensitivity; therefore, work in those units shall require paleontological monitoring, as designated by the Qualified Paleontologist in the Paleontological Resources Monitoring and Mitigation Plan (PRMMP).				
GEO-4	<b>Low Sensitivity.</b> Projects involving ground disturbance in previously undisturbed areas mapped as having “low” paleontological sensitivity shall incorporate worker training to make construction workers aware that, although paleontological sensitivity is low, fossils might still be encountered. The Qualified Paleontologist shall oversee this training as well as remain on call in the event fossils are found.	Qualified Paleontologist in coordination with the Construction Contractor	Prior to and During Ground-Disturbing Activities	City of Corona Community Development Department	
GEO-5	<b>Unknown Sensitivity.</b> Projects involving ground disturbance in previously undisturbed areas mapped as having “unknown” paleontological sensitivity shall retain a Qualified Paleontologist to conduct a field survey of the project area to determine the sensitivity of the geologic units, after which the relevant mitigation measures (GEO-1 through GEO-4) shall be applied.	Qualified Paleontologist in coordination with the Project Applicant and the City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	
GEO-6	<b>All Projects.</b> In the event of any fossil discovery, regardless of depth or geologic formation, construction work shall halt within a 50-foot radius of the find until its significance can be determined by a Qualified Paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology (2010). The most likely repository is the Natural History Museum of Los Angeles County (NHMLA). The repository shall be identified, and a curatorial arrangement shall be signed, prior to collection of the fossils.	Qualified Paleontologist in coordination with the Construction Contractor	During Ground Disturbing Activities	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)	
<b>GREENHOUSE GAS EMISSIONS</b>					
GHG-1	<p>The City of Corona shall update the Climate Action Plan (CAP) every five years to ensure the City is monitoring the plan's progress toward achieving the City's greenhouse gas (GHG) reduction target and to require amendment if the plan is not achieving specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under Executive Order S-03-05 for year 2050 and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update (e.g., Senate Bill 32 for year 2030). The CAP update shall include the following:</p> <ul style="list-style-type: none"> <li>• GHG inventories of existing and forecast year GHG levels.</li> <li>• Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal of Executive Order S-03-05.</li> <li>• Plan implementation guidance that includes, at minimum, the following components consistent with the proposed CAP: <ul style="list-style-type: none"> <li>– Administration and Staffing</li> <li>– Finance and Budgeting</li> <li>– Timelines for Measure Implementation</li> <li>– Community Outreach and Education</li> <li>– Monitoring, Reporting, and Adaptive Management</li> <li>– Tracking Tools</li> </ul> </li> </ul>	City of Corona Planning Division	Every Five Years	City of Corona Community Development Department	
<b>MINERAL RESOURCES</b>					
MIN-1	<p>Prior to project approval for proposed development of properties classified as either regionally significant construction aggregate MRZ-2 or industrial minerals MRZ-2a, a mineral resource evaluation shall be conducted to determine the significance and economic viability of mining the resource. If development of a property would preclude</p>	Project Applicant in coordination with the City of Corona Planning Division	Prior to Project Approval	City of Corona Community Development Department	



## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
	future extraction of a significant mineral resource, in accordance with CEQA, the City shall make the appropriate findings and adopt a Statement of Overriding Considerations prior to permitting development of the property.				
MIN-2	Prior to approval of any project on lands classified as either regionally significant construction aggregate MRZ-2 or industrial mineral MRZ-2a, a report shall be prepared that analyzes the project's value in relation to the mineral values found onsite. The analysis shall consider the importance of construction aggregate mineral resource onsite to the market region as a whole, and not just the importance of the resources found within the City and SOI. The report shall be submitted to the City, such that the City has adequate information to develop a statement of reasons for permitting the proposed land use to the California Department of Conservation, State Mining and Geology Board, for subsequent review, in accordance with SMARA, Article 2, Section 2762 and 2763 for areas designated of regional significance	Project Applicant in coordination with the City of Corona Planning Division and the State Mining and Geology Board	Prior to Project Approval	City of Corona Community Development Department	
<b>NOISE</b>					
N-1	Construction contractors shall implement the following measures for construction activities conducted in the City. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans submitted to the City. The City Corona Public Works Department shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading and/or building permits. <ul style="list-style-type: none"> <li>During the active construction period, equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, intake silencers, ducts, engine enclosures, and</li> </ul>	Project Applicant in coordination with the Construction Contractor and the City of Corona Public Works Department	Prior to Approval of Demolition/Grading/Building Permits and During Construction Activities	City of Corona Public Works Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>acoustically attenuating shields or shrouds), wherever feasible.</p> <ul style="list-style-type: none"> <li>• Impact tools (e.g., jack hammers and hoe rams) shall be hydraulic- or electric-powered wherever feasible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.</li> <li>• Stationary equipment such as generators and air compressors shall be located as far as feasible from noise-sensitive uses.</li> <li>• Stockpiling shall be located as far as feasible from noise-sensitive receptors.</li> <li>• Construction traffic shall be limited—to the extent feasible—to approved haul routes established by the City.</li> <li>• Prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the contact information of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, they shall investigate, take appropriate corrective action, and report the action to the City.</li> <li>• Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.</li> <li>• During the entire active construction period and to the extent feasible, the use of noise-producing signals,</li> </ul>				

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
	<p>including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall be responsible for adjusting alarms based on the background noise level, or to utilize human spotters when feasible and in compliance with all safety requirements and laws.</p> <ul style="list-style-type: none"> <li>When construction noise is predicted to exceed established noise standards and when the anticipated construction duration is two years or more, contractors shall erect temporary noise barriers, where feasible.</li> </ul>				
N-2	<p>Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures such as historical resources, 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster), or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry), or the City threshold of 0.05 in/sec RMS (94 VdB). If vibration levels would exceed this threshold, alternative uses such static rollers and drilling piles as opposed to pile driving shall be used.</p>	<p>Project Applicant in coordination with the Construction Contractor and the City of Corona Public Works Department</p>	<p>Prior to Issuance of a Building Permit</p>	<p>City of Corona Public Works Department</p>	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)	
<b>TRANSPORTATION</b>					
T-1	<p>The City shall consider the following implementation programs to reduce citywide VMT:</p> <ul style="list-style-type: none"> <li>• <b>VMT exchange program.</b> VMT generators can select from a pre-approved list of mitigation projects that may be located within the same jurisdiction or possibly from a larger area. The intent is to match the project's needed VMT reduction with a specific mitigation project of matching size and to provide evidence that the VMT reduction will reasonably occur.</li> <li>• <b>VMT Mitigation Bank.</b> A mitigation bank is intended to serve as an entity or organization that pools fees from development projects across multiple jurisdictions to spend on larger scale mitigation projects. This concept differs from the more conventional impact fee program approach described above in that the fees are directed to a few larger projects that have the potential for a more significant reduction in VMT and the program is regional in nature.</li> </ul>	City of Corona Public Works Department	On-going	City of Corona Public Works Department	
<b>TRIBAL CULTURAL RESOURCES</b>					
TCR-1	<p><b>Tribal Cultural Resources Monitoring.</b> The project archaeologist, in consultation with interested tribes, the developer and the City of Corona, shall develop an Archaeological Monitoring Plan (AMP) to address the details, timing and responsibility of archaeological and cultural activities that will occur on the project site. Details in the AMP shall include:</p> <ol style="list-style-type: none"> <li>1. Project-related ground disturbance (including, but not limited to, brush clearing, grading, trenching, etc.) and development scheduling;</li> <li>2. The development of a rotating or simultaneous schedule in coordination with the developer and the project archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native</li> </ol>	<ul style="list-style-type: none"> <li>• AMP: Qualified Archaeologist in coordination with the Project Applicant and the City of Corona Planning Division</li> <li>• Tribal Monitoring: Construction Contractor in coordination with Native American Tribal Monitor</li> </ul>	<ul style="list-style-type: none"> <li>• AMP: Prior to Issuance of a Grading Permit</li> <li>• Tribal Monitoring: 30-days Prior to Issuance of a Grading Permit and During Ground Disturbing Activities</li> </ul>	City of Corona Community Development Department	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
	<p>American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists (if the tribes cannot come to an agreement on the rotating or simultaneous schedule of tribal monitoring, the Native American Heritage Commission shall designate the schedule for the onsite Native American Tribal Monitor for the proposed project);</p> <p>3. The protocols and stipulations that the developer, City, Tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.</p> <p>At least 30-days prior to application for a grading permit and before any brush clearance, grading, excavation and/or ground disturbing activities on the site take place, the future developer shall retain a tribal cultural monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.</p> <p>Pursuant to the AMP, a tribal monitor from the consulting tribe (e.g., Pechanga Band of Luiseño Indians, Soboba Band of Luiseño Indians, or Gabrieleño Band of Mission Indians – Kizh Nation) shall be present during the initial grading activities. If tribal resources are found during grubbing activities, the tribal monitoring shall be present during site grading activities.</p>				
TCR-2	<p><b>Treatment and Disposition of Cultural Resources.</b> In the event that Native American cultural resources are inadvertently discovered during the course of any ground disturbing activities, including but not limited to brush clearance, grading, trenching, etc. grading for the proposed project, the following procedures will be carried out for treatment and disposition of the discoveries:</p>	<p>Qualified Archaeologist in coordination with the Project Applicant and the applicable Native American Tribe</p>	<p>During Ground Disturbing Activities</p>	<p>City of Corona Community Development Department</p>	

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<ol style="list-style-type: none"> <li>1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversight of the process; and</li> <li>2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Corona with evidence of same:               <ol style="list-style-type: none"> <li>a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing, basic analysis, and other analyses as recommended by the project archaeologist and approved by consulting tribes and basic recordation have been completed; all documentation should be at a level of standard professional practice to allow the writing of a report of professional quality;</li> <li>b. A curation agreement with an appropriate qualified repository within San Bernardino 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 San Bernardino County, to be accompanied by payment of the fees necessary for permanent curation;</li> <li>c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project</li> </ol> </li> </ol>				

## 2. Mitigation Monitoring Requirements

**Table 1 Mitigation Monitoring Requirements**

	<b>Mitigation Measure</b>	<b>Responsibility for Implementation</b>	<b>Timing</b>	<b>Responsibility for Monitoring</b>	<b>Monitor (Signature Required) (Date of Compliance)</b>
	<p>and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum by default;</p> <p>d. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City, County Museum, and consulting tribes.</p>				
TCR-3	<p>During construction activities, the project applicant shall allow additional archaeological monitors of Native American tribes to access the project site on a volunteer basis to monitor grading and excavation activities.</p>	<p>Qualified Archaeologist in coordination with the Project Applicant and Native American Tribal Monitor</p>	<p>During Construction Activities</p>	<p>City of Corona Community Development Department</p>	

## 3. Report Preparation

---

### 3.1 LIST OF PREPARERS

#### **City of Corona**

Joanne Coletta, Community Development Director

#### **PlaceWorks**

Nicole Vermilion, Principal

Jasmine A. Osman, Project Planner



### 3. Report Preparation

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## Appendix B. Biological Technical Report and MSHCP Consistency Analysis

**Biological Technical Report and MSHCP  
Consistency Analysis  
for the  
Ontario Avenue Widening at Lincoln Avenue  
Project**

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**Riverside County, California**

Assessor's Parcel Numbers: 109-382-023 through -033, 109-390-005, 109-391-001 through -008, 109-413-001, 109-422-010 through -014, 109-423-007 through -010, 110-513-001 through -006, 110-513-021, -022, 110-521-016 through -025, 112-242-032, 113-020-009, -015, -016, -018, 113-131-001, 113-140-001, -005, -006, -008, -010, -015, -016, -017, -018, -020, -021, -025, -026, 113-290-005 through -009, -013, -014, 113-420-003, -010, -011, 113-432-001, 113-491-006 through -016

**Prepared For:**

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**Prepared By:**

 **ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS  
2861 Pullman Street  
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**July 2024**

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**LIST OF ACRONYMS AND ABBREVIATIONS**

<b>Term</b>	<b>Description</b>
ARD	Aquatic Resources Delineation
BMP	Best Management Practice
Caltrans	California Department of Transportation
CBB	Crotch bumble bee
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
ESA	Endangered Species Act
FHWA	Federal Highway Administration
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IA	Implementing Agreement
m	meters
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MM	Mitigation Measure
MSHCP	Multiple Species Habitat Conservation Plan
MSL	Mean Sea Level
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NPPA	Native Plant Protection Act
NRCS	National Resources Conservation Service
NWI	National Wetlands Inventory
NWPR	Navigable Waters Protection Rule
Procedures	State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

<b>Term</b>	<b>Description</b>
Project	Ontario Avenue Widening at Lincoln Avenue Project
PVC	Polyvinyl chloride
RCA	Regional Conservation Authority
RCHCA	Riverside County Habitat Conservation Agency
RCTLMA	Riverside County Transportation and Land Management Agency
ROW	Right of way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SKR	Stephens' kangaroo rat
SSC	Species of Special Concern
TNW	Traditionally Navigable Waters
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRCBMP	Western Riverside County Biological Monitoring Program

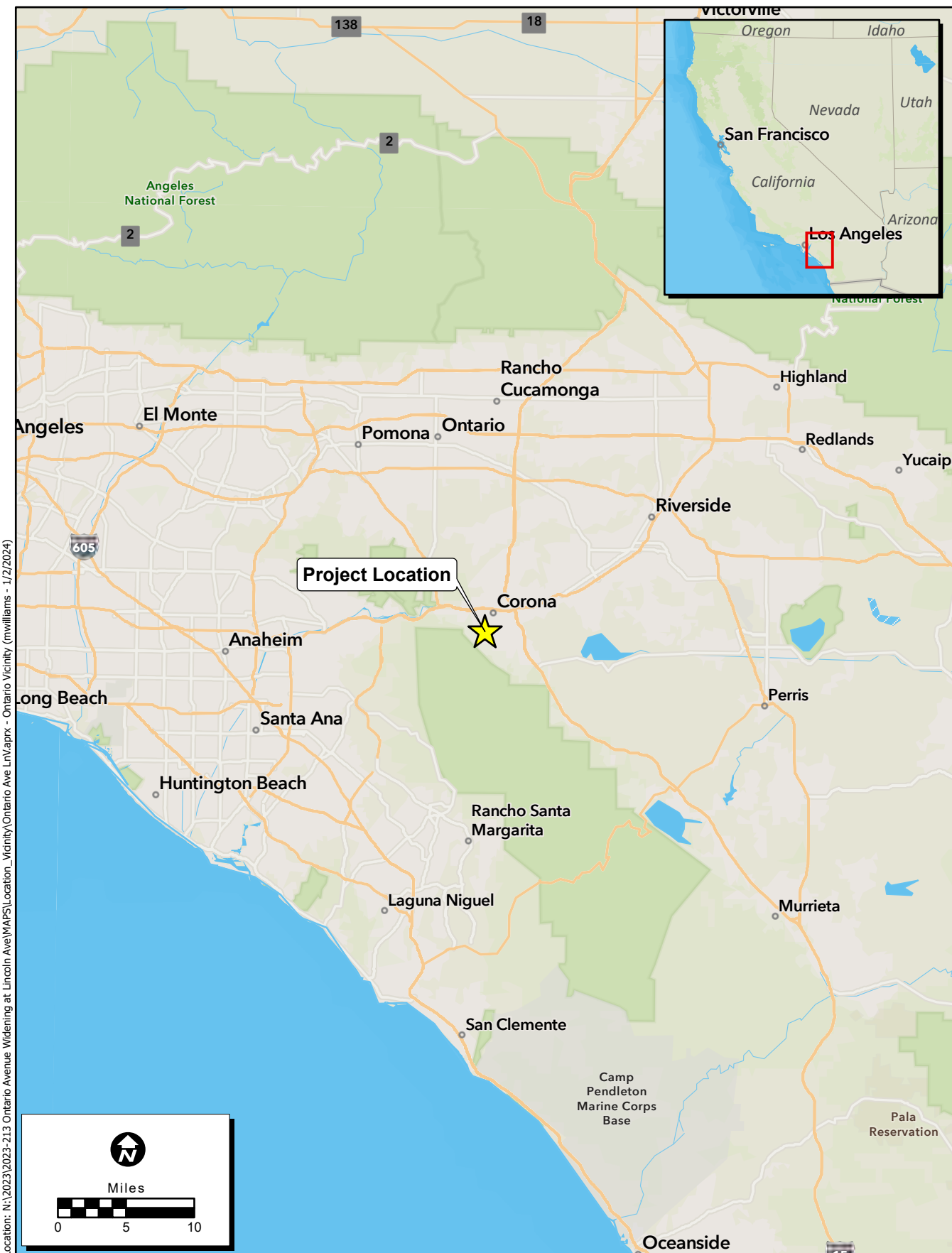
## 1.0 INTRODUCTION

On behalf of the City of Corona, PlaceWorks, Inc. retained ECORP Consulting, Inc. to provide California Environmental Quality Act (CEQA) services for the proposed Ontario Avenue Widening at Lincoln Avenue Project (Project) located in the City of Corona in Riverside County, California. ECORP biologists conducted a reconnaissance-level biological survey of the Project Site to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether Project-related impacts would occur to sensitive biological resources, as required under CEQA. ECORP conducted the biological surveys in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside and outlines goals for their conservation. Information on the MSHCP can be found at [www.rctlma.org](http://www.rctlma.org) (Riverside County Transportation and Land Management Agency [RCTLMA] 2024). The purpose of this study is to comply with the requirements of the MSHCP and identify any biological resources that may require mitigation prior to impacts from development. The Project will be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code.

### 1.1 Project Location

The Project Site consists of an approximately 20.13-acre area comprised of Assessor's Parcel Numbers: 109-382-023 through -033, 109-390-005, 109-391-001 through -008, 109-413-001, 109-422-010 through -014, 109-423-007 through -010, 110-513-001 through -006, 110-513-021, -022, 110-521-016 through -025, 112-242-032, 113-020-009, -015, -016, -018, 113-131-001, 113-140-001, -005, -006, -008, -010, -015, -016, -017, -018, -020, -021, -025, -026, 113-290-005 through -009, -013, -014, 113-420-003, -010, -011, 113-432-001, and 113-491-006 through -016. The Project Site is located in the City of Corona, south of State Route 91, in Riverside County (Figures 1 and 2). The Project Site is located east of Via Pacifica, west of Taylor Avenue, and north of Highgrove Street. The Project is located within the Unincorporated La Sierra (Yorba) Land Grant and is depicted on the U. S. Geological Survey (USGS) Corona South 7.5-minute topographic map quadrangle. Elevation at the Project Site ranges from 871 to 900 feet (approximately 265 to 274 meters) above Mean Sea Level (MSL; Google Earth 2024). The Project Site shown in Figure 2 is slightly larger than needed to encompass all potential activities and needs for the Project.



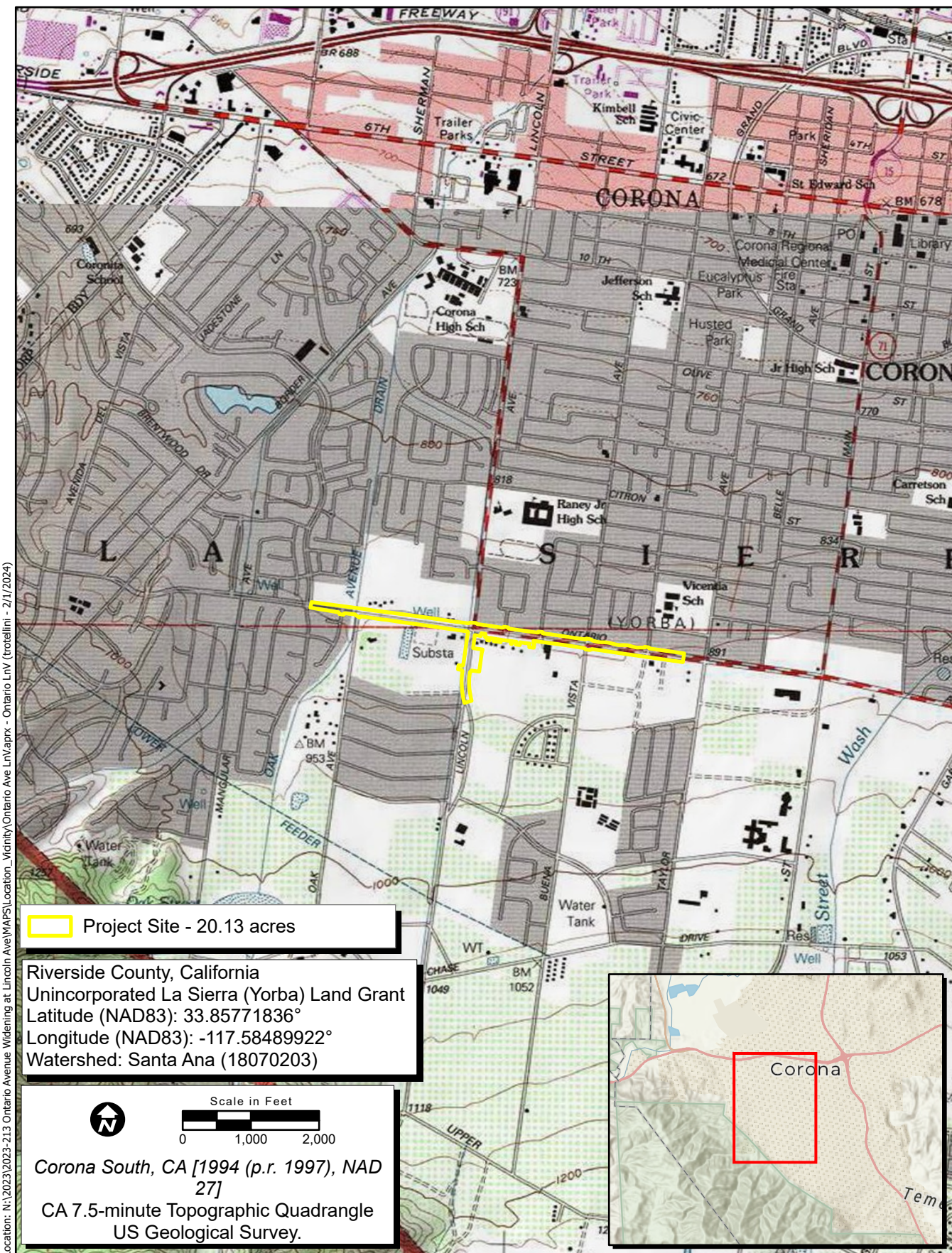



Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Location\_Vicinity\Ontario Ave Ln\Map - 1/2/2024

Map Date: 1/2/2024  
Sources: ESRI


**Figure 1. Project Vicinity**

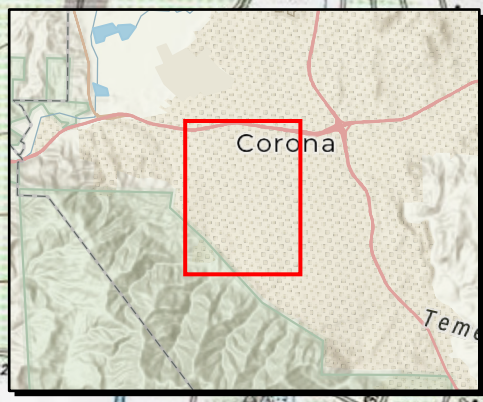




 Project Site - 20.13 acres

Riverside County, California  
 Unincorporated La Sierra (Yorba) Land Grant  
 Latitude (NAD83): 33.85771836°  
 Longitude (NAD83): -117.58489922°  
 Watershed: Santa Ana (18070203)

 Scale in Feet  
 0 1,000 2,000  
 Corona South, CA [1994 (p.r. 1997), NAD 27]  
 CA 7.5-minute Topographic Quadrangle  
 US Geological Survey.



Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Location\_Vicinity\Ontario Ave Ln\Maprx - Ontario LnV (trotellini - 2/1/2024)

Map Date: 1/18/2024  
 Sources: ESRI, USGS

**Figure 2. Project Location**

## 1.2 Background and Project Description

Ontario Avenue is an East/West major arterial roadway spanning nearly the limits of the City of Corona. In the section of roadway between Buena Vista Avenue and the Interstate 15, Ontario Avenue has been widened to the ultimate plan of six lanes, with three lanes of vehicular travel in each direction with raised median islands. However, between Lincoln Avenue and Buena Vista Avenue, Ontario Avenue is a Major Arterial 4 Lane Roadway for which the south side of Ontario Avenue between Lincoln Avenue and Conejo Street has not been improved. This section of Ontario Avenue lacks the consistency of the civil improvements constructed in the adjacent roadway sections. In addition, Lincoln Avenue between Ontario Avenue and Othello Lane contains neither sidewalks nor streetlights on the East side of the street, which are present in all adjacent sections of Lincoln Avenue. Furthermore, the current South Corona Community Facilities Plan designates raised landscaped median islands on Ontario Avenue between Lincoln Avenue and South Vicentia Avenue and a signalized intersection at Othello Lane and Lincoln Avenue, and is also designated in the City's Traffic Signal Master Plan.

With this Project, the City aims to accomplish the following tasks:

1. Widen the roadway on Ontario Avenue to the ultimate right of way (ROW) between Lincoln Avenue and Conejo Street providing three lanes of vehicular travel and bike lanes in each direction maintaining a continuous and homogeneous corridor on Ontario Avenue east of Oak Avenue. Ontario Avenue shall be maintained with three lanes of vehicular travel and a bike lane in each direction between Oak Avenue and Taylor Avenue.
2. Construct raised landscaped median islands along Ontario Avenue between Oak Avenue and South Vicentia Avenue per the South Corona Community Facilities Plan.
3. Complete all missing civil improvements on the south side of Ontario Avenue between Lincoln Avenue and Conejo Street including curb and gutter, parkways, sidewalks, driveway approaches, driveways, streetlights, catch basins, and utility relocations.
4. Complete all missing civil improvements on the east side of Lincoln Avenue between Ontario Avenue and Othello Lane including curb and gutter, parkways, sidewalks, driveway approaches, streetlights, and utility relocations.
5. Modify the existing traffic signals at the intersections of Ontario Avenue/Lincoln Avenue and Ontario Avenue/Oak Avenue to align with the ultimate street improvements and lane configurations.
6. Construct signalized intersection at the intersection of Lincoln Avenue/Othello Lane and provide fiberoptic communications to the existing Traffic Management System hub cabinet at Lincoln/Ontario.
7. Construct American with Disabilities Act compliant curb ramps at intersections within the Project limits.
8. Extend the existing 8-inch polyvinyl chloride (PVC) reclaimed water main line on Ontario Avenue from the Ontario Avenue/Lincoln Avenue intersection to the Ontario Avenue/South Vicentia



Avenue intersection to feed the irrigation system for the proposed and existing median islands. Convert the existing City of Corona owned landscape meter at 882 Ontario Avenue at the Southeast Corner of Ontario/South Buena Vista Avenue from potable water to reclaimed water.

9. Provide an analysis and cost to benefit ratio to extend the existing 8-inch reclaimed water main past the proposed end point at the intersection of Ontario Avenue/South Vicentia Avenue to the intersection of Ontario Avenue/Main Street and convert the existing City of Corona owned landscape meters from potable water to reclaimed water.
10. Construct sewer laterals for the directly affected properties between Lincoln Avenue and Conejo Street from the existing 10-inch vitrified clay pipe sewer main on Ontario Avenue to the ROW limit on the south side of Ontario Avenue.
11. Resurface Ontario Avenue and restripe lane configurations to be homogenous with the improved sections of Ontario within the Project limits and any adjacent areas required. The limits anticipated are on Ontario Avenue from Via Pacifica to Taylor Avenue and on Lincoln Avenue from Othello Lane to Ontario Avenue.

## **2.0 SPECIAL-STATUS SPECIES REGULATIONS**

ECORP biologists conducted the biological reconnaissance survey to identify potential constraints to Project development and ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The regulations are detailed in this section.

### **2.1 Federal Regulations**

#### **2.1.1 The Federal Endangered Species Act**

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

### **2.1.2 Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act was enacted in 1940 and prohibits anyone, without a permit, from *taking* bald or golden eagles including their parts, nests, or eggs. *Take* is defined as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. In addition to these protections, the Bald and Golden Eagle Protection Act provides protection for nesting sites. Nesting sites are protected not only when active but also when previously used. These nests are protected in the case that an eagle may return to the same nesting site.

### **2.1.3 Migratory Bird Treaty Act**

The federal MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13, General Permit Procedures and 50 CFR Part 21, Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

### **2.1.4 Federal Clean Water Act**

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. *Discharges of fill material* is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following:

- Placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction;
- site development fills for recreational, industrial, commercial, residential, and other uses;
- causeways or road fills; and
- fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations Section 328.2(f)].

In addition, Section 401 of the Clean Water Act (CWA; 33 USC 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetland and non-wetland Waters of the U.S. (over 0.5 acre of impact) may require an individual permit. Projects that only minimally affect Waters of the U.S. (less than 0.5 acre of impact) may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions. In California, this

certification or waiver is typically issued by the Regional Water Quality Control Board (RWQCB). However, in the case of tribal lands that are held in trust, this certification or waiver is issued by the USACE.

## **2.2 State and Local Regulations**

### **2.2.1 California Endangered Species Act**

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

### **2.2.2 Fully Protected Species**

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. However, as of July 10, 2023, Senate Bill 147 (SB147) was signed into law, authorizing CDFW to issue take permits under the California ESA for fully protected species for qualifying projects through 2033. As stated in section 2081.15 of SB147, qualifying projects include:

- *A maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources.*
- *A maintenance, repair, or improvement project to critical regional or local water agency infrastructure.*
- *A transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency that does not increase highway or street capacity for automobile or truck travel.*
- *A wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California based balancing authority.*

- *A solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California-based balancing authority.*

Under the bill American peregrine falcon (*Falco peregrinus anatum*), brown pelican (*Pelecanus occidentalis*), and thickettail chub (*Gila crassicauda*) are no longer considered fully protected species.

### **2.2.3 Native Plant Protection Act**

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by CDFW. The California Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

### **2.2.4 Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the Waters of the State to file a report of discharge” with the RWQCB through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code of Regulations [CCR], title 23, Section 3855) (State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code Section 13050[e]). Pollution is defined as an alteration of the quality of the Waters of the State by waste to a degree that unreasonably affects its beneficial uses (California Water Code Section 13050) and includes filling in Waters of the State. Note that CCR, title 23, Section 3855 applies only to individual water quality certifications, but the new Procedures extend the application of Section 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB considers whether project activities could affect the quality of Waters of the State.

### **2.2.5 California Fish and Game Code**

#### **2.2.5.1 Streambed Alteration Agreement**

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake” (CDFW 2023a). In Title 14 of the CCR, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or

other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.” In Chapter 9, Section 2785 of the California Fish and Game Code, *riparian habitat* is defined as “lands which contain habitat which grows close to, and which depends upon soil moisture from a nearby freshwater source.”

The CDFW’s jurisdiction includes drainages with a definable bed, bank, or channel and areas associated with a drainage channel that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. If warranted, the CDFW will issue an SAA that includes measures to protect affected fish and wildlife resources; this SAA is the final proposal agreed upon by the CDFW and the applicant.

### **2.2.5.2 Migratory Birds**

The CDFW enforces the protection of nongame native birds in Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds’ nests and also make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code Section 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

### **2.2.5.3 Bats and Roosting Bats**

Bats in California are currently protected by the California Fish and Game Code, Sections 86, 1600, 2000, 2014, 3007, and 4150; California Public Resources Code, Division 14, Section 21000 et seq.; CCR, Title 14 including, but not limited to Section 251.1, CEQA regulations (Section 15000 et seq.), Section 15380 – Endangered, Rare, or Threatened Species, Section 15382 – Significant Effect on the Environment, and Appendix O; and California Department of Transportation (Caltrans) Environmental Policy, Caltrans Environmental Procedures, Federal Highway Administration (FHWA) Environmental Policy, and FHWA Environmental Procedures.

Regulations of particular relevance to this Project include Title 14, Section 251.1 of the CCR, which prohibits harassment (defined in that section as an intentional act that disrupts an animal’s normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits *take* or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered *take* as defined in Section 86 of the California Fish and Game Code. In addition, impacts to bat maternity colonies, which are considered native wildlife nursery sites, could be considered significant under CEQA.



### **2.2.6 Western Riverside County Multiple Species Habitat Conservation Plan**

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP identifies 146 species, referred to as *Covered Species*, for which the federal and California ESAs *take* authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be *adequately conserved*. The remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in an efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue *take* authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the county and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with CEQA, National Environmental Policy Act (NEPA), the California ESA, and the federal ESA will be granted. The Development Mitigation Fee varies according to project size and project description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

### **2.2.7 California Environmental Quality Act Significance Criteria**

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if a project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;

- have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

## 3.0 METHODS

### 3.1 Literature Review

ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDDB; CDFW 2023b), the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2023a), the USFWS Carlsbad Office Species Occurrence Data (USFWS 2023a), and the MSHCP biological monitoring program data (CDFW 2023c) prior to conducting the biological reconnaissance survey to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project Site. ECORP searched CNDDDB and CNPSEI records within the Project Site boundaries as depicted on USGS 7.5-minute Corona South topographic quadrangle, plus the following surrounding eight topographic quadrangles: Prado Dam, Corona North, Riverside West, Black Star Canyon, Lake Mathews, El Toro, Santiago Peak, and Alberhill. The CNDDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, CDFW Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project. Additional information was gathered from the following sources and includes, but is not limited to the following:

- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2023d);
- Special Animals List (CDFW 2023e);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);

- *A Manual of California Vegetation*, 2nd Edition (MCV, Sawyer et al. 2009);
- *A Manual of California Vegetation*, Online Edition (CNPS 2023b); and
- various online websites (e.g., CalFlora 2023; eBird 2024; NatureServe 2023).

ECORP generated a list of special-status plant and animal species that have potential to occur within the Project Site using this information and observations in the field. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, Sections 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are covered species under the MSHCP but are not considered adequately conserved.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the site were assessed for their potential to occur within the Project Site based on the following guidelines:

- **Present:** The species was observed on the site during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Project Site and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Project Site and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Site; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Project Site.
- **Low:** Limited or marginal habitat for the species occurs within the Project Site and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Site; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.
- **Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on site; or the known geographic range of the species does not include the Project Site.

Note that location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that species.

### **3.2 U.S. Fish and Wildlife Service Designated Critical Habitat**

Biologists reviewed the USFWS online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California to determine if the Project is within any species' designated Critical Habitat (USFWS 2023b).

### **3.3 Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis**

ECORP reviewed data regarding the Project Site to determine consistency with the MSHCP. Biologists also queried the Western Riverside County Regional Conservation Authority (RCA) MSHCP Information Map to determine requirements for habitat assessment(s), potential focused survey(s), or other issues related to biological resources that could exist on the Project Site (RCA 2024).

Section 6.0 of the MSHCP requires that an assessment of the Project Site be completed to identify any potential Project-related effects on biological resources, including burrowing owl (*Athene cunicularia*), riparian/riverine areas, vernal pools, and fairy shrimp (*Branchinecta* spp.), if applicable. In addition, the MSHCP requires that an Urban/Wildlands Interface analysis be conducted to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas.

### **3.4 Field Survey**

#### **3.4.1 Biological Reconnaissance Survey**

ECORP biologists conducted the biological reconnaissance survey by walking the entire Project Site and surrounding areas within a 500-foot buffer, where accessible, to identify the vegetation communities and wildlife habitats on the Project Site. The biologists documented the plant and wildlife species present on the Project Site and assessed the condition of the Project Site for the potential to provide habitat for special-status plant and wildlife species. They recorded data on a Global Positioning System (GPS) unit, field notebooks, and/or maps and took photographs during the survey to provide visual representation of the various vegetation communities and site conditions within the Project Site. The Project Site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region.

ECORP conducted vegetation mapping of the communities and habitats present within the Project Site and the 500-foot buffer to confirm the presence and quality of habitat found onsite. Biologists used the *Manual of California Vegetation, Online Edition* (CNPS 2023b) to classify vegetation communities. Any deviations from standard vegetation classifications were made on best professional judgment when areas

did not fit into a specific habitat description provided by the MCV. Biologists mapped vegetation communities using field observations and aerial imagery.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (2017), *Checklist of North American Birds* (Chesser et al. 2023), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

In instances where a special-status species was observed, ECORP recorded the date, species, location and habitat, and GPS coordinates. The locations of special-status species observations were recorded using a handheld GPS in North American Datum 1983, Universal Transverse Mercator coordinates, Zone 11S.

### **3.5 Preliminary Aquatic Resources Delineation**

A formal Aquatic Resources Delineation (ARD) was not conducted as a part of the biological reconnaissance survey; however, ECORP conducted a desktop review to identify potential streams and hydric soils in the Project Site and 500-foot buffer. This entailed examination of the National Resources Conservation Service (NRCS) Soil Mapper (2023), National Wetlands Inventory (NWI) mapping (USFWS 2023c), USGS The National Map and National Hydrography Dataset (USGS 2023), aerial photography, and the USGS topographic mapping of the Project Site to aid in identifying potential biological constraints to the Project due to jurisdictional streams or features. The desktop review identifies aquatic features within the Project alignment that could be considered aquatic resources jurisdictional to the State of California or USACE. If any aquatic resources were identified in or around the Project Site during the desktop review, they were observed and documented during the field survey.

## **4.0 RESULTS**

The results of the literature review and field surveys, including site characteristics, vegetation communities, plants, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized in this section.

### **4.1 Literature Review**

#### **4.1.1 Special-Status Plants and Wildlife**

ECORP conducted the CNDDDB and CNPSEI searches on December 1 and 5, 2023. The database searches identified 70 special-status plant species and 65 special-status wildlife species that could occur on and/or near the Project Site. A list was generated from the results of the literature review, and the Project Site was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list. Appendix A contains a list of the special-status plant species with potential to occur on and/or near the Project Site, and Appendix B contains a list of the special-status wildlife species with potential to occur on and/or near the Project Site.

## 4.2 U.S. Fish and Wildlife Service Designated Critical Habitat

The Project Site and adjacent 500-foot buffer is not located within any USFWS-designated Critical Habitat. The nearest designated Critical Habitat is located in the foothills at the base of the Santa Ana Mountains, approximately 1 mile southwest of the Project Site and is associated with coastal California gnatcatcher (*Polioptila californica californica*; USFWS 2023b). The next two closest Critical Habitat areas are both located along the Santa Ana River and are designated for least Bell’s vireo (*Vireo bellii pusillus*), approximately 2.4 miles northwest of the Project Site, and for Santa Ana sucker (*Catostomus santaanae*), approximately 3.2 miles northwest of the Project Site (USFWS 2023b).

## 4.3 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on December 6, 2023 by ECORP biologists Alexandra Dorough, Daniel Jaques, and Taylor Dee. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plants and vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 1.

Date	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
12/6/2023	0645	0930	53	64	5	5	0-1	0-1

Note: °F = Degrees Fahrenheit; mph = miles per hour

### 4.3.1 Property Characteristics

The Project Site occurs primarily within the existing paved public ROW. An undeveloped lot is located in the southern portion of the Project Site, and portions of several residential lots occur toward the center of the Project Site. The 500-foot buffer primarily contains residential development with a community park in the western portion and multiple churches and a power substation in the southern portion, south of Ontario Avenue. A drainage channel is present in the eastern part of the Project Site adjacent to Oak Avenue. The drainage channel enters the Project Site from the south and runs underneath Ontario Avenue via a box culvert, leaving the Project Site to the north. Disturbances observed on the Project Site include development with nonnative and ornamental vegetation associated with landscaping, West Ontario Avenue which is a busy highly trafficked road, and ground and vegetation disturbance (i.e., tilling, tree trimming, and landscaping).

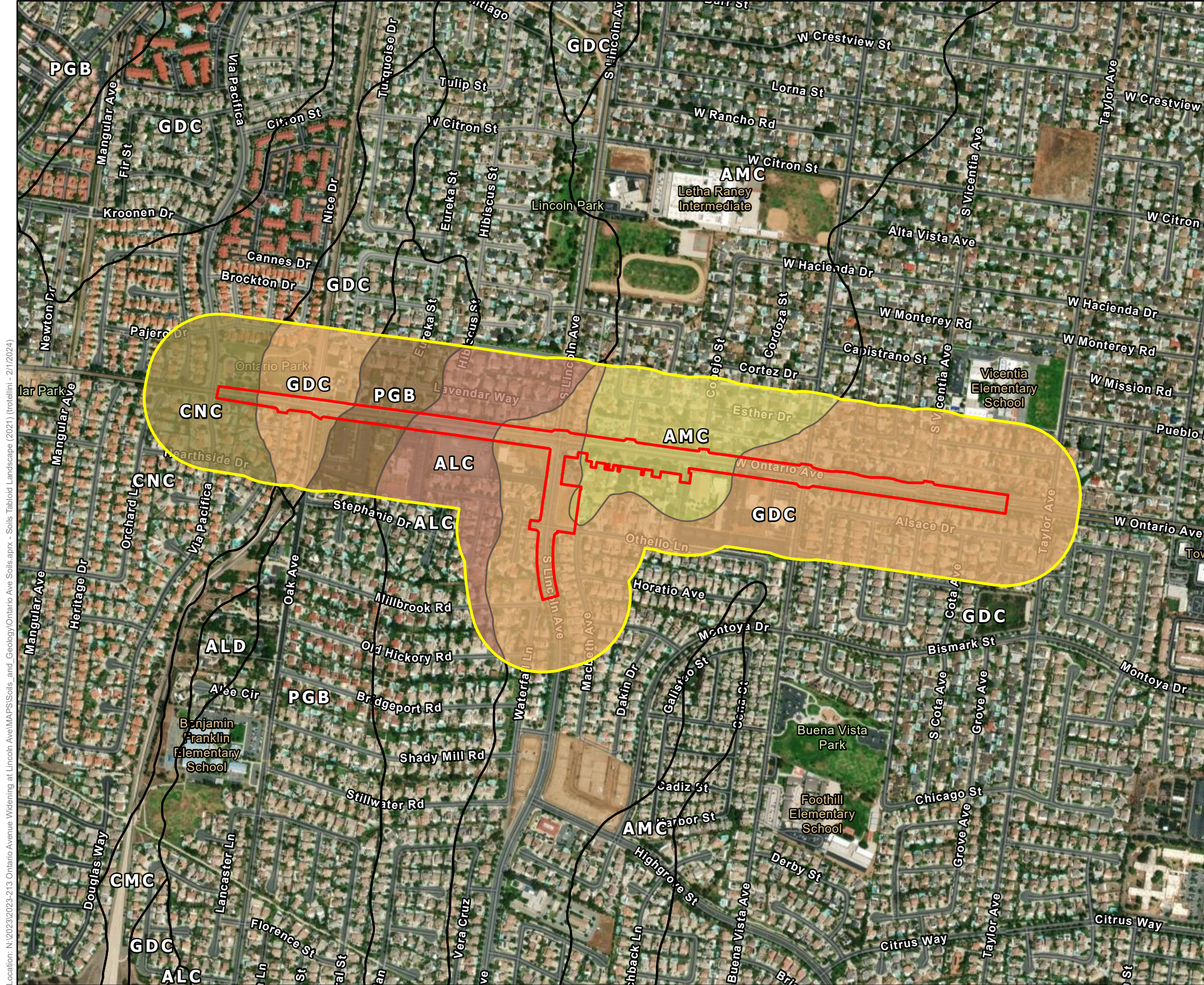
According to NRCS Web Soil data, five soil types are documented within the Project Site and 500-foot buffer (NRCS 2023; Figure 3): Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19 (A1C); Arbuckle gravelly clay loam, 2 to 8 percent slopes (AmC); Cortina gravelly coarse sandy loam, 2 to 8 percent slopes (CnC); Garretson gravelly very fine sandy loam, 2 to 8 percent slopes (GdC); and Perkins gravelly loam, 2 to

10 percent slopes, low precipitation, MLRA 19 (PgB). None of these soil types are hydric or contain hydric components (NRCS 2023). The Project Site shown in Figure 3 is slightly larger than needed to encompass all potential activities and needs for the Project.

#### **4.3.2 Vegetation Communities and Land Cover Types**

ECORP mapped and classified vegetation communities and land cover types within the Project Site and the 500-foot buffer using the MCV (CNPS 2023b). No vegetation communities were identified within the Project Site and 500-foot buffer. However, two land cover types are present within the Project Site: disturbed and urban/developed. The Project's 500-foot buffer consists of urban/developed land cover. Each of these land cover types are described below and depicted on Figure 4. The Project Site shown in Figure 4 is slightly larger than needed to encompass all potential activities and needs for the Project.





**Map Features**

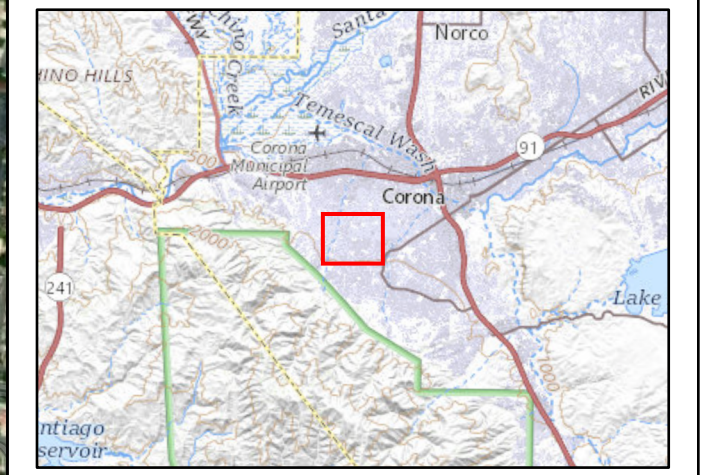
- Project Site
- Project Buffer - 500 ft

**Soils Designation - Soils Description**

- AIC - Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19
- AmC - Arbuckle gravelly clay loam, 2 to 8 percent slopes
- CnC - Cortina gravelly coarse sandy loam, 2 to 8 percent slopes
- GdC - Garretson gravelly very fine sandy loam, 2 to 8 percent slopes
- PgB - Perkins gravelly loam, 2 to 10 percent slopes, low precipitation, MLRA 19

Natural Resources Conservation Service (NRCS)  
Soil Survey Geographic (SSURGO) Database for  
Riverside County, CA

Sources: Maxar (2022), ESRI



Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Soils\_and\_Geology\Ontario Ave Soils.aprx - Soils Tabloid Landscape (2021) (trollini - 2/1/2024)

Map Date: 1/3/2024



**Figure 3. Natural Resources Conservation Service Soil Types**  
2023-213 Ontario Road Widening at Lincoln Avenue





**Figure 4. Vegetation Communities and Land Cover Types**  
2023-213 Ontario Avenue Widening at Lincoln Avenue

Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Vegetation\_and\_LandCover\Ontario Ave Veg.aprx - Title RIGHT (mwilliams - 1/19/2024)



### 4.3.3 Disturbed

Disturbed land includes areas that are mostly devoid of vegetation and have been heavily influenced by human actions such as grading, trash dumping, equipment staging, and off-highway vehicle use, but lack development. Disturbed land is not a vegetation classification, but rather a land cover type and is not restricted by elevation. Disturbed areas may be actively maintained to be free of vegetation or have been compacted or disced to such a degree that native and nonnative vegetation is very sparse. The areas mapped as disturbed are largely devoid of vegetation but contain sparse nonnative weedy and ruderal vegetation. This land cover type occurs within the Project Site in a single lot east of Lincoln Avenue. Plants present in this land cover type within the Project Site include nonnative weedy species such as ripgut brome (*Bromus diandrus*), field bindweed (*Convolvulus arvensis*), cheeseweed mallow (*Malva parviflora*), silverleaf nightshade (*Solanum elaeagnifolium*), and California fan palm (*Washingtonia robusta*).

### 4.3.4 Urban/Developed

Developed lands are those that are heavily affected by human use including landscaping, residential homes, commercial or industrial buildings and associated infrastructure, and transportation corridors. Urban/developed areas do not constitute a vegetation classification, but rather a land cover type. Areas mapped as urban/developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. On the Project Site and within the 500-foot buffer, portions of the developed areas contain strips of ornamental and landscaped vegetation; however, this land cover type also consists of paved roadways, residential development, and parking lots. The majority of the Project Site and 500-foot buffer is mapped as urban/developed. Ornamental landscaped plants observed during the biological survey include lawn grass (*Festuca* sp.), English ivy (*Hedera helix*), Indian hawthorn (*Rhaphirolepis indica*), yellow trumpet bush (*Tecoma stans*), and various ornamental trees.

### 4.3.5 Plants Observed

Plant species observed during the survey were generally characteristic of disturbed urban areas. Native plants observed include white alder (*Alnus rhombifolia*), toyon (*Heteromeles arbutifolia*), Fremont's cottonwood (*Populus fremontii*), and coast live oak (*Quercus agrifolia*). Nonnative plant species observed include wild oat (*Avena* sp.), orchid tree (*Bauhinia purpurea*), carrotwood (*Cupaniopsis anacardioides*), sweetgum (*Liquidambar styraciflua*), queen palm (*Syagrus romanzoffiana*), and other various nonnative ornamental plant species. A full list of plant species observed on the Project Site and in the 500-foot buffer is included in Appendix D.

### 4.3.6 Wildlife Observed

Wildlife species observed and detected on the Project Site or within the 500-foot buffer during the biological reconnaissance survey were generally characteristic of urban environments. Fifteen bird species were observed including Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), and black phoebe (*Sayornis nigricans*). One mammal species was observed during the survey: pocket gopher (*Thomomys* sp.). A complete list of wildlife species observed during the survey is included as Appendix E.

### 4.3.7 Potential for Special-Status Species to Occur on the Project Site

The literature review and database searches identified 70 special-status plant species and 65 special-status wildlife species that occur on or near the Project Site. However, due to the urban setting and the high level of disturbance at the Project Site, many of the species are presumed absent.

#### 4.3.7.1 Special-Status Plants

There were 70 special-status plant species that appeared in the literature review and database searches for the Project Site (CDFW 2023b; CNPS 2023a). Of those, 17 are federally and/or state-listed and 55 are covered by the MSHCP. Biologists generated a list from the results of the literature review, and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. Of the 70 special-status plants identified in the literature review, all 70 species are presumed absent from the Project Site. A table outlining each species, their designations, and the potential for these species to occur on the Project Site can be found in Appendix A.

The results of the literature review were limited to plant species occurring within a nine-quadrangle search of the Project Site. For the purposes of this study, plant species with a CNPS Rare Plant Rank of 1A were eliminated from the analysis because they are presumed to be extirpated from California. Additionally, plant species with a CNPS Rare Plant Rank of 3 or 4 were eliminated from the analysis because these rankings are considered a review list and a watch list, respectively, and if present these Rank 3 and 4 species are not expected to occur in high density. One exception to this is for Rank 3 and 4 species that are covered by the Western Riverside MSHCP and are not considered to be adequately conserved. Plant species that met this criteria were included within the generated list for review. Additionally, plant species were included if they do not have a federal or state listing and do not have a CNPS rank but are covered by the Western Riverside MSHCP and are not considered to be adequately conserved. Descriptions of the CNPS designations can be found in Table 2.

<b>Table 2. California Rare Plant Rank Status Designations</b>	
<b>List Designation</b>	<b>Meaning</b>
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)

<b>Table 2. California Rare Plant Rank Status Designations</b>	
<b>List Designation</b>	<b>Meaning</b>
.2	Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions. CRPR = California Rare Plant Rank

#### **4.3.7.2 Plant Species Presumed Absent**

A total of 70 plant species were presumed absent due to lack of suitable habitat (including elevation and soils) on the Project Site or because the Project is located outside of the known range for the species.

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*), California Rare Plant Rank (CRPR) 1B.1;
- Yucaipa onion (*Allium marvinii*), CRPR 1B.2, MSHCP Covered;
- Munz's onion (*Allium munzii*), federally listed (endangered), state listed (threatened), CRPR 1B.1, MSHCP Covered;
- San Diego ambrosia (*Ambrosia pumila*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Rainbow manzanita (*Arctostaphylos rainbowensis*), CRPR 1B.1, MSHCP Covered;
- Braunton's milk-vetch (*Astragalus brauntonii*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*), CRPR 1B.1, MSHCP Covered;
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), federally listed (endangered), CRPR 1B.1, MSHCP Covered;
- Coulter's saltbush (*Atriplex coulteri*), CRPR 1B.2, MSHCP Covered;
- Parish's brittlescale (*Atriplex parishii*), CRPR 1B.1, MSHCP Covered;
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), CRPR 1B.2, MSHCP Covered;
- Malibu baccharis (*Baccharis malibuensis*), CRPR 1B.1, MSHCP Covered;
- Nevin's barberry (*Berberis nevinii*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Johnston's rockcress (*Boechera johnstonii*), CRPR 1B.2, MSHCP Covered;

- Thread-leaved brodiaea (*Brodiaea filifolia*), federally listed (threatened), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Orcutt's brodiaea (*Brodiaea orcutti*), CRPR 1B.1, MSHCP Covered;
- Round-leaved filaree (*California macrophylla*), MSHCP Covered;
- San Jacinto mariposa lily (*Calochortus palmeri* var. *munzii*), CRPR 1B.2, MSHCP Covered;
- Plummer's mariposa lily (*Calochortus plummerae*), CRPR 4.2, MSHCP Covered;
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), CRPR 1B.2, MSHCP Covered;
- Vail Lake ceanothus (*Ceanothus ophiochilus*), federally listed (threatened), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Smooth tarplant (*Centromadia pungens* ssp. *laevis*), CRPR 1B.1, MSHCP Covered;
- Peninsular spineflower (*Chorizanthe leptotheca*), CRPR 4.2, MSHCP Covered;
- San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), state listed (endangered), CRPR 1B.1;
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR 1B.1, MSHCP Covered;
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), CRPR 1B.2, MSHCP Covered;
- San Miguel savory (*Clinopodium chandleri*), CRPR 1B.2, MSHCP Covered;
- Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), CRPR 1B.2;
- Mojave tarplant (*Deinandra mohavensis*), state listed (endangered), CRPR 1B.3, MSHCP Covered;
- Cleveland's bush monkeyflower (*Diplacus clevelandii*), CRPR 4.2, MSHCP Covered;
- Slender-horned spineflower (*Dodecahema leptoceras*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- Santa Monica dudleya (*Dudleya cymosa* ssp. *ovatifolia*), federally listed (threatened), CRPR 1B.1;
- Many-stemmed dudleya (*Dudleya multicaulis*), CRPR 1B.2, MSHCP Covered;
- Sticky dudleya (*Dudleya viscida*), CRPR 1B.2, MSHCP Covered;
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;

- San Jacinto Mountains bedstraw (*Galium angustifolium* ssp. *jacinticum*), CRPR 1B.3, MSHCP Covered;
- Alvin Meadow bedstraw (*Galium californicum* ssp. *primum*), CRPR 1B.2, MSHCP Covered;
- Tecate cypress (*Hesperocyparis forbesii*), CRPR 1B.1;
- Gowen cypress (*Hesperocyparis goveniana*), federally listed (threatened), CRPR 1B.2;
- Shaggy-haired alumroot (*Heuchera hirsutissima*), CRPR 1B.3, MSHCP Covered;
- Graceful tarplant (*Holocarpha virgata* ssp. *elongata*), CRPR 4.2, MSHCP Covered;
- Mesa horkelia (*Horkelia cuneata* var. *puberula*), CRPR 1B.1;
- Beautiful hulsea (*Hulsea vestita* ssp. *callicarpha*), CRPR 4.2, MSHCP Covered;
- Coulter’s goldfields (*Lasthenia glabrata* ssp. *coulteri*), CRPR 1B.1, MSHCP Covered;
- Heart-leaved pitcher sage (*Lepechinia cardiophylla*), CRPR 1B.2, MSHCP Covered;
- Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), CRPR 4.2, MSHCP Covered;
- Lemon lily (*Lilium parryi*), CRPR 1B.2, MSHCP Covered;
- Parish’s meadowfoam (*Limnanthes alba* ssp. *parishii*), state listed (endangered), CRPR 1B.2, MSHCP Covered;
- Small-flowered microseris (*Microseris douglasii* ssp. *playtcarpha*), CRPR 4.2, MSHCP Covered;
- Hall’s monardella (*Monardella macrantha* ssp. *hallii*), CRPR 1B.3, MSHCP Covered;
- California muhly (*Muhlenbergia californica*), CRPR 4.3, MSHCP Covered;
- Mud nama (*Nama stenocarpa*), CRPR 2B.2, MSHCP Covered;
- Spreading navarretia (*Navarretia fossalis*), federally listed (threatened), CRPR 1B.1, MSHCP Covered;
- Prostrate navarretia (*Navarretia prostrata*), CRPR 1B.2, MSHCP Covered;
- Chaparral nolina (*Nolina cismontana*), CRPR 1B.2;
- California Orcutt grass (*Orcuttia californica*), federally listed (endangered), state listed (endangered), CRPR 1B.1, MSHCP Covered;
- California beardtongue (*Penstemon californicus*), CRPR 1B.2, MSHCP Covered;
- Allen’s pentachaeta (*Pentachaeta aurea* ssp. *allenii*), CRPR 1B.1;
- Brand’s star phacelia (*Phacelia stellaris*), CRPR 1B.1, MSHCP Covered;
- Fish’s milkwort (*Polygala cornuta* var. *fishiae*), CRPR 4.3, MSHCP Covered;

- Cliff cinquefoil (*Potentilla rimicola*), CRPR 2B.3, MSHCP Covered;
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2, MSHCP Covered;
- Coulter's matilija poppy (*Romneya coulteri*), CRPR 4.2, MSHCP Covered;
- Chaparral ragwort (*Senecio aphanactis*), CRPR 2B.2;
- Hammitt's clay-cress (*Sibaropsis hammittii*), CRPR 1B.2, MSHCP Covered;
- Salt spring checkerbloom (*Sidalcea neomexicana*), CRPR 2B.2;
- San Bernardino aster (*Symphotrichum defoliatum*), CRPR 1B.2;
- California screw moss (*Tortula californica*), CRPR 1B.2; and
- Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), CRPR 2B.1, MSHCP Covered.

#### **4.3.8 Potential for Special-Status Wildlife to Occur on the Project Site**

There were 65 special-status wildlife species that appeared in the literature review and database searches for the Project Site. Of those, 22 are federally and/or state listed, two are fully protected outside the ESA, one is a candidate for federal listing, two are proposed for federal listing, two are candidates for state listing, and 47 are covered by the MSHCP. Of the 65 special-status wildlife species identified in the literature review, one has a moderate potential to occur, five have a low potential to occur, and the remaining 59 species are presumed absent from the Project Site. The urban, developed nature of the Project Site, the lack of native vegetation, the presence of anthropogenic influences on the Project Site, and the lack of suitable habitat likely reduce the potential for occurrence of many of these species. A complete list of the 59 special-status wildlife species, with details regarding habitat requirements and potential for occurrence designations, is included as Appendix B.

##### **4.3.8.1 Wildlife Species with a Moderate Potential to Occur**

The following species were found to have a moderate potential to occur on the Project Site, as indicated by one or more of the following:

- habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the site;
- habitat for the species occurs onsite and a historic documented observation (i.e., more than 20 years old) was recorded within 5 miles of the Project Site; or
- a recently documented observation occurs within 5 miles of the site and marginal or limited amounts of habitat occurs onsite.

##### **Lincoln's Sparrow (*Melospiza lincolni*)**

Lincoln's sparrow is an MSHCP-Covered Species. This bird is a winter visitor to the lowland of Southern California and is a rare breeder in higher elevations (4,000 to 9,000 feet above MSL) of the San Gabriel,

San Bernardino, and San Jacinto Mountains. Lincoln's sparrow breeds in lush and brushy montane wet meadows with thickets of small willows (*Salix* spp.), other riparian shrubs, and tall grasses. Wintering and migratory areas for this species include lowland shrub and scrub habitats including chaparral, coastal sage scrub, grassland, freshwater marsh, peninsular juniper woodland, riparian scrub, oak woodland and forest, and Riversidean alluvial fan sage scrub. The diet of this species consists of a variety of seeds, insects, millipedes, and other small invertebrates. Although there is no suitable nesting habitat present on the Project Site, the Project Site contains marginally suitable wintering and foraging habitat in the disturbed lot present at the corner of South Lincoln Avenue and Othello Lane. There is also marginally suitable wintering and foraging habitat present in the ornamental vegetation within the urban landscaped areas within the Project Site and the 500-foot buffer. Although no CNDDDB records were identified during the database search, multiple recent records of the species were identified within 5 miles of the Project Site in eBird and the Western Riverside County Biological Monitoring Program (WRCBMP). The closest WRCBMP record was documented in November 2019 approximately 3 miles northwest of the Project Site (CDFW 2023c). The closest eBird records were multiple occurrences on April 2021 at the Skyline Drive Trailhead approximately 1 mile southeast of the Project Site, and multiple observations from December 2021 and November 2020 at Mountain Gate Park approximately 1 mile south of the Project Site (eBird 2024). This species has a moderate potential to occur as a winter visitor in the Project Site based on the marginally suitable habitat present and recent records within 5 miles.

#### **4.3.8.2 Wildlife Species with a Low Potential to Occur**

The following species was found to have a low potential to occur on the Project Site, as indicated by one or more of the following:

- Limited or marginal habitat for the species occurs within the Project Site and a recently documented observation occurs within the database search, but not within 5 miles of the area;
- Limited or marginal habitat for the species occurs within the Project Site and a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Site; or
- Suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.

#### **Crotch Bumble Bee (*Bombus crotchii*)**

Crotch bumble bee is a Candidate for listing under the California ESA. This species occurs between San Diego and Redding, California, within a variety of habitats including open grasslands, shrublands, chaparral, and within some desert habitats and urban settings (CDFW 2022). Crotch bumble bee is most easily distinguished from other *Bombus* species by their distinct hair coloration; queen and worker bees have black hair on their faces with yellow on the top of the head, the front part of the thorax is yellow with some black hairs between and below the wings and at the back of the thorax, the first tergal on the abdomen is black, the second tergal is usually yellow, the third tergal is black anteriorly and red posteriorly, and the fourth and fifth tergals are either entirely red or black (The Xerces Society 2018).



Crotch bumble bees require suitable nesting sites, nectar and pollen sources throughout their colony period (i.e., spring, summer, fall), and overwintering sites for queens. Nests are often underground in abandoned holes that were utilized by ground squirrels, mice, rats, and birds. Nectar sources most commonly used by this species include those from the family Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Limited nesting habitat occurs on the Project Site in the disturbed lot, located at the corner of South Lincoln Avenue and Othello Lane, where small mammal burrows are present. The ornamental vegetation present in the urban/developed areas of the Project Site provides foraging habitat for the species. The literature review documented only historic CNDDDB records of the species within 5 miles of the Project Site (CDFW 2023b). However, one recent record (Occ #423) was documented approximately 9 miles northwest of the Project Site at Chino Hills State Park in July 2020. The closest CNDDDB record (Occ #197) was recorded in March 1933 in Corona, approximately 0.3 miles north of the Project Site. No Bumble Bee Watch records were identified within 5 miles of the Project Site (The Xerces Society 2023). The closest Bumble Bee Watch records were eight individuals documented on August 2023 at Walnut Reservoir in Anaheim approximately 8.8 miles west of the Project Site. Based on the limited nesting and suitable foraging habitat present within the Project Site, historic records within 5 miles, and recent records greater than 5 miles away, Crotch bumble bee was determined to have a low potential to occur on the Project Site.

Additional wildlife species with a low potential to occur:

- Pallid bat (*Antrozous pallidus*), CDFW SSC;
- Western mastiff bat (*Eumops perotis californicus*), CDFW SSC;
- Western yellow bat (*Lasiurus xanthinus*), CDFW SSC; and
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC.

#### **4.3.8.3 Wildlife Species Presumed Absent**

These species were not present at the site during the site visit and/or habitat was not present or suitable. For some species, there were historic or recent sightings; however, due to the lack of suitable habitat within the Project Site, these species are presumed absent:

- Vernal pool fairy shrimp (*Branchinecta lynchi*), federally listed (threatened), MSHCP Covered;
- San Diego fairy shrimp (*Branchinecta sandiegonensis*), federally listed (endangered);
- Monarch butterfly (*Danaus plexippus* pop. 1), Candidate for federal listing;
- Quino checkerspot butterfly (*Euphydryas editha quino*), federally listed (endangered), MSHCP Covered;
- Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*), MSHCP Covered;
- Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), federally listed (endangered), MSHCP Covered;

- Riverside fairy shrimp (*Streptocephalus woottoni*), federally listed (endangered), MSHCP Covered;
- Santa Ana sucker (*Catostomus santaanae*), federally listed (threatened), MSHCP Covered;
- Arroyo chub (*Gila orcutti*), CDFW SSC, MSHCP Covered;
- Steelhead – southern California DPS (*Oncorhynchus mykiss irideus* pop. 10), federally listed (endangered), candidate for state listing;
- Santa Ana speckled dace (*Rhinichthys osculus* ssp. pop. 8), CDFW SSC;
- Arroyo toad (*Anaxyrus californicus*), federally listed (endangered), CDFW SSC, MSHCP Covered;
- California red-legged frog (*Rana draytonii*), federally listed (threatened), CDFW SSC, MSHCP Covered;
- Southern mountain yellow-legged frog (*Rana muscosa*), federally listed (endangered), state listed (endangered), MSHCP Covered;
- Western spadefoot (*Spea hammondi*), proposed for federal listing, CDFW SSC, MSHCP Covered;
- Coast Range newt (*Taricha torosa*), CDFW SSC, MSHCP Covered;
- San Diegan legless lizard (*Anniella stebbinsi*), CDFW SSC;
- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC;
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC, MSHCP Covered;
- Southern rubber boa (*Charina umbratica*), state listed (threatened), MSHCP Covered;
- San Diego banded gecko (*Coleonyx variegatus abbotti*), CDFW SSC, MSHCP Covered;
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC, MSHCP Covered;
- Western pond turtle (*Emys marmorata*), proposed for federal listing, CDFW SSC, MSHCP Covered;
- California mountain kingsnake (*Lampropeltis zonata [parvirubra]*), San Bernardino population, MSHCP Covered;
- California mountain kingsnake (*Lampropeltis zonata [pulchra]*), San Diego population, MSHCP Covered;
- Blainville’s horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered;
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*), CDFW SSC;
- Southern sagebrush lizard (*Sceloporus graciosus vandenburgianus*), MSHCP Covered;

- Two-striped gartersnake (*Thamnophis hammondi*), CDFW SSC;
- Northern goshawk (*Accipiter gentilis*), CDFW SSC, MSHCP Covered;
- Tricolored blackbird (*Agelaius tricolor*), state listed (threatened), CDFW SSC, MSHCP Covered;
- Grasshopper sparrow (*Ammodramus savannarum*), CDFW SSC, MSHCP Covered;
- Long-eared owl (*Asio otus*), CDFW SSC;
- Burrowing owl (*Athene cunicularia*), CDFW SSC, MSHCP Covered;
- Golden eagle (*Aquila chrysaetos*), Bald and Golden Eagle Protection Act, CDFW Fully Protected, MSHCP Covered;
- Swainson's hawk (*Buteo swainsoni*), state listed (threatened), MSHCP Covered;
- Mountain plover (*Charadrius montanus*), CDFW SSC, MSHCP Covered;
- Western snowy plover (*Charadrius nivosus nivosus*), federally listed (threatened), CDFW SSC;
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), federally listed (threatened), state listed (endangered), MSHCP Covered;
- Yellow rail (*Coturnicops noveboracensis*), CDFW SSC;
- Black swift (*Cypseloides niger*), CDFW SSC, MSHCP Covered;
- White-tailed kite (*Elanus leucurus*), CDFW Fully Protected, MSHCP Covered;
- Southwestern willow flycatcher (*Empidonax traillii extimus*), federally listed (endangered), state listed (endangered), MSHCP Proposed Species;
- Bald eagle (*Haliaeetus leucocephalus*), Bald and Golden Eagle Protection Act, federally delisted, state listed (endangered), CDFW Fully Protected, MSHCP Covered;
- Yellow-breasted chat (*Icteria virens*), CDFW SSC, MSHCP Covered;
- Loggerhead shrike (*Lanius ludovicianus*), CDFW SSC, MSHCP Covered;
- California black rail (*Laterallus jamaicensis coturniculus*), state listed (threatened), CDFW Fully Protected;
- Coastal California gnatcatcher (*Polioptila californica californica*), federally listed (threatened), CDFW SSC, MSHCP Covered;
- Purple martin (*Progne subis*), CDFW SSC, MSHCP Covered;
- Yellow warbler (*Setophaga petechia*), CDFW SSC, MSHCP Covered;
- Williamson's sapsucker (*Sphyrapicus thyroideus*), MSHCP Covered;
- California spotted owl (*Strix occidentalis occidentalis*), CDFW SSC, MSHCP Covered;

- Least Bell's vireo (*Vireo bellii pusillus*), federally listed (endangered), state listed (endangered), MSHCP Covered;
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), CDFW SSC, MSHCP Covered;
- San Bernardino kangaroo rat (*Dipodomys merriami parvus*), federally listed (endangered), state listed (endangered), CDFW SSC, MSHCP Covered;
- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (threatened), state listed (threatened), MSHCP Covered;
- San Bernardino flying squirrel (*Glaucomys oregonensis californicus*), CDFW SSC, MSHCP Covered;
- Southern grasshopper mouse (*Onychomys torridus ramona*), CDFW SSC; and
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), CDFW SSC, MSHCP Covered.

#### 4.4 Bats, Raptors, and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present on and adjacent to the Project Site in some of the larger trees and shrubs. Additionally, the open areas and ground could be suitable for some ground-nesting species (e.g., mourning dove [*Zenaida macroura*]), killdeer [*Charadrius vociferus*]). Raptors typically breed from January 15 through August 31, and songbirds and other passerines generally nest from February 1 through September 30. There is potential for nesting to occur within the Project Site and in adjacent habitat within the 500-foot buffer due to the presence of suitable nesting habitat in the form of structures (i.e., buildings, utility poles), trees and shrubs throughout the urban/developed areas, and disturbed lot.

Potential roosting habitat for bat species protected under CEQA and the California Fish and Game Code was present on and adjacent to the Project Site. Potentially suitable habitat for roosting was present within and adjacent to the Project Site primarily in the form of untrimmed frond skirts of palm trees located within and adjacent to the Project Site as well as in the form of other large trees such as Fremont's cottonwood. Additionally, potentially suitable habitat for roosting bats is present on the Project Site in the form of residential buildings and crevices in the box culvert underneath Ontario Avenue.

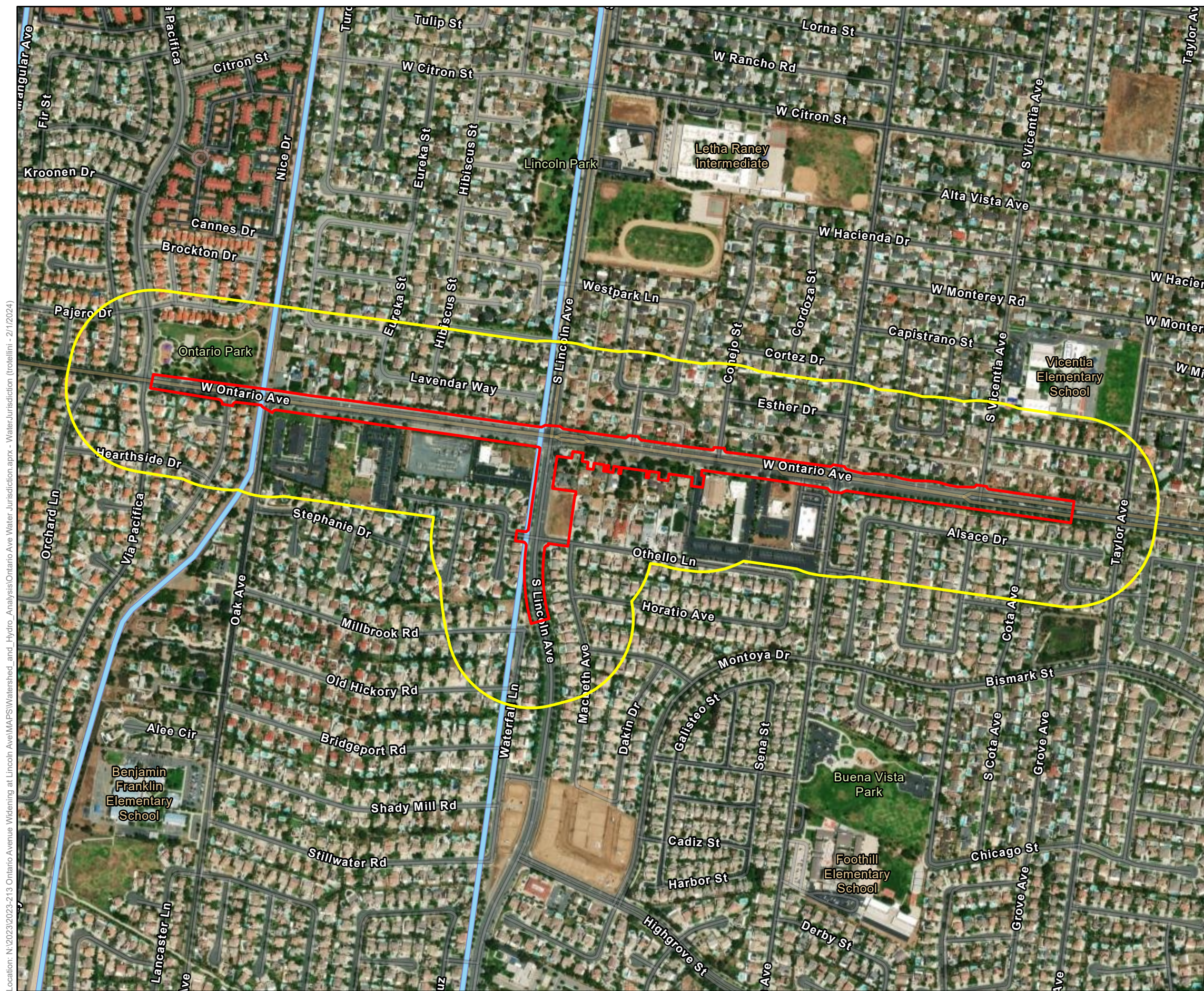
Bats common to California can roost within human-made structures such as culverts and buildings, as well as in tree foliage and cavities. No bats or bat sign (e.g., staining, guano) were detected during the biological reconnaissance survey. However, the box culvert located underneath Ontario Avenue was inaccessible at the time of the biological survey for the biologists to inspect for bats or bat sign.

#### 4.5 Aquatic Resources

The desktop review of the NRCS identified five soil units, or types, within the Project Site, none of which are considered a hydric soil or have hydric components. The desktop review of the NWI and USGS

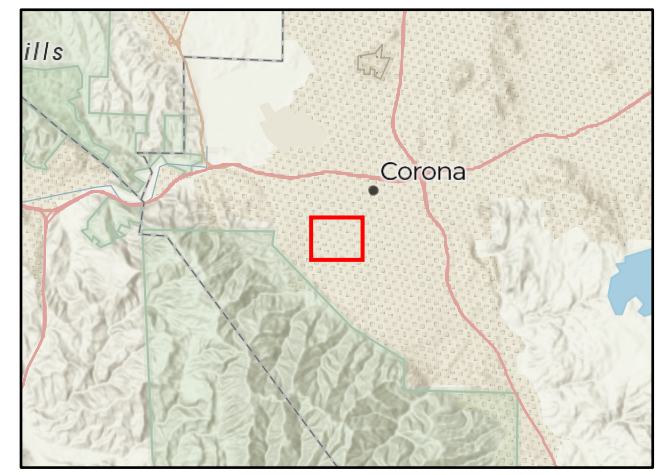
National Map revealed two potentially jurisdictional aquatic features within the Project Site (USFWS 2023c; USGS 2023). Both of these features are shown on Figure 5. The Project Site shown in Figure 5 is slightly larger than needed to encompass all potential activities and needs for the Project. The first feature appears to cross the Project Site and appears to run parallel to Lincoln Avenue (USGS 2023). This first feature is not visible on aerial imagery, was not visible during the biological survey, and was likely piped underground when initial development of the area occurred. The second feature is the drainage channel located in the eastern part of the Project Site adjacent to Oak Avenue. This drainage channel is a concrete-lined channel that lacks vegetation and runs in a south-to-north fashion and runs underneath Ontario Avenue via a box culvert. The biologists observed a very small amount of water flowing through this channel at the time of the biological survey. Although a desktop review of aquatic resources was performed, no formal delineation of aquatic resources was conducted.





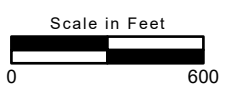
- Map Contents**
- Project Site
  - Project Buffer - 500 ft
  - Potential Jurisdictional Resources

Sources: ESRI, Maxar (2022), USGS, National Hydrology Dataset



Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Watershed\_and\_Hydro\_Analysis\Ontario Ave Water Jurisdiction.aprx - WaterJurisdiction (trollini - 2/1/2024)

Map Date: 1/2/2024



**Figure 5. Potentially Jurisdictional Aquatic Resources**  
2023-213 Ontario Road Widening at Lincoln Avenue



## 4.6 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species between habitat areas. The definition of a corridor varies, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat.

Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

ECORP assessed the Project Site for its ability to function as a wildlife corridor. Most of the Project Site occurs within the existing paved public ROW. The Project Site is surrounded by residential development to the north, south, east, and west and is surrounded by highly trafficked roadways that reduce movement of wildlife to the Project Site including Via Pacifica, Ontario Avenue, Lincoln Avenue, South Buena Vista Avenue, and Taylor Avenue. The Project Site is situated approximately 1 mile east of the Santa Ana Mountains and despite the presence of nearby roadways and residential development, the Project Site could play a role in local wildlife dispersal and foraging. Common wildlife species including coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and common raccoon (*Procyon lotor*) could travel through the Project Site and neighboring developed areas.

However, the Project Site provides limited connectivity between large areas of open space on a local or regional scale. The Project Site's value as a corridor is lessened by the presence of residential development on all sides, highly trafficked paved roadways, and anthropogenic factors. Less than significant impacts to wildlife corridors are expected to occur from the Proposed Project.

## 5.0 IMPACT ANALYSIS

### 5.1 Special-Status Species

The majority of the Project Site was classified as urban/developed land cover with one smaller area consisting of disturbed land. In addition, the entire 500-foot buffer consists of urban/developed land cover. Disturbances observed on the Project Site and the 500-foot buffer were mainly associated with development and anthropogenic disturbance including nonnative and ornamental vegetation, highly trafficked roadways, landscaping, and tilling of undeveloped land. This impact analysis takes the highly developed nature of the Project Site into account when considering potential impacts that may occur anywhere within the Project Site boundaries to special-status species.

Of the 70 special-status plant species identified in the literature search, all 70 species were determined to be presumed absent from the Project Site. Furthermore, the Project Site is neither located in a Criteria Area nor a MSHCP-designated Narrow Endemic Plant Species Survey Area. No impacts to special-status plant or Criteria/Narrow Endemic plant species are expected to occur as a result of the Proposed Project.

Of the 65 special-status wildlife species identified in the literature search, one has a moderate potential to occur and five have a low potential to occur. The remaining 59 species are presumed absent from the Project Site.

Lincoln's sparrow was determined to have a moderate potential for wintering on the Project Site; however, was presumed absent from nesting within the Project Site and 500-foot buffer. Lincoln's sparrow is a MSHCP Covered species that is not adequately conserved. Direct impacts to migrating and wintering Lincoln's sparrow may occur in the form of injury or mortality by moving vehicles and equipment. Indirect impacts could occur as a result of Project construction in the form of increased human and vehicular activity, noise, dust, ground vibrations, nighttime lighting, and habitat degradation. However, if this species were to be present within the Project Site; they would likely occur in low numbers due to anthropogenic disturbances and lack of connectivity on the Project and Project-related impacts would not contribute to the overall decline of populations of this species. Therefore, no impacts to Lincoln's sparrow are anticipated to result from this Project.

Crotch bumble bee was determined to have a low potential to occur on the Project Site. Foraging habitat occurs throughout the majority of the Project Site. Limited nesting habitat is present on the Project Site in the disturbed lot where small mammal burrows are present. Direct impacts to Crotch bumble bee could occur in the form of injury or mortality due to vehicle or equipment strikes or entombment inside of nesting locations (i.e., burrows) that are graded over during construction. Indirect impacts may occur in the form of loss of habitat, increased human activity, noise, dust, and ground vibrations. Due to the status of this species as a Candidate for state listing and the presence of suitable habitat, impacts to Crotch bumble bee would be less than significant with the implementation of Mitigation Measure BIO-1 and BIO-5.

Four bat species, all CDFW SSC species, have a low potential to occur on the Project Site: pallid bat, western mastiff bat, western yellow bat, and pocketed free-tailed bat. Suitable roosting habitat in the form of residential buildings and crevices in the box culvert located underneath Ontario Avenue is present for pallid bat. The buildings present on the Project Site and within the 500-foot buffer also offer suitable roosting habitat for western mastiff bat and pocketed free-tailed bat. Large California and Mexican fan palm trees with large unkept frond skirts were present within the Project Site that offer suitable roosting habitat for western yellow bat. Title 14, Section 251.1 of the CCR prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (i.e., bats), and California Fish and Game Code Section 4150 prohibits take or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (i.e., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered take as defined in Section 86 of the California Fish and Game Code. Impacts to maternity roosting sites of any native bat species, regardless of status, may be



considered a significant impact to a *native wildlife nursery site* under CEQA. In order to avoid potentially significant impacts to bats classified as SSC or to maternity colonies of non-SSC bats, MM BIO-2 and BIO-5 are recommended.

The buildings and other anthropogenic structures as well as ornamental shrubs and trees located on and immediately adjacent to the Project Site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. Furthermore, the disturbed lot within the Project Site could provide nesting habitat for ground-nesting bird species. If construction of the Proposed Project occurs during the bird breeding season (typically January 15 through August 31 for raptors and February 1 through September 30 for the majority of migratory bird species), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Site, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of MM BIO-3 and BIO-5.

## **5.2 Sensitive Natural Communities**

The Project Site consists of urban/developed and disturbed land covers. Neither of these land cover types are considered sensitive natural communities. Therefore, no impacts to sensitive natural communities are anticipated to result from the development of this Project.

## **5.3 State or Federally Protected Wetlands and Waters of the U.S.**

Two aquatic features that are potentially jurisdictional to USACE, RWQCB, and/or CDFW occur within the Project Site (Figure 5). One feature was likely piped underground when initial development of the area occurred. The second feature is a concrete-lined channel that runs underneath Ontario Avenue via a box culvert. Direct impacts to aquatic resources could include any grading, trenching, excavation, or placement of temporary or permanent fill within a regulated feature. Indirect impacts include erosion and runoff into aquatic features. Should impacts to either of these aquatic resources be necessary, a formal aquatic resources delineation should be conducted to determine if it is subject to the jurisdiction of the USACE, RWQCB, and/or CDFW. If jurisdictional features are identified on the Project Site, coordination with the regulatory agencies (USACE, RWQCB, and/or CDFW) regarding regulatory permitting will be required. Additionally, preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be required to satisfy MSHCP requirements for impacts to the riverine areas within the Project Site if impacts are unavoidable.

Regulatory permitting described above could require compensatory mitigation through the permit process. That mitigation could take the form of payment of an in-lieu fee, participation in a mitigation banking program, or some form of onsite or offsite restoration. The exact details of mitigation, such as type, location, and mitigation ratio, would be determined through the permit process with the regulatory agencies. Implementation of regulatory permitting and compensatory mitigation, if required, will reduce impacts to wetlands and Waters of the U.S. to a level that is less than significant.

## **5.4 Wildlife Corridors and Nursery Sites**

The majority of the Project Site is located within and adjacent to areas containing development and existing high-levels of anthropogenic disturbances. The Project Site is surrounded by highly trafficked roadways that could deter large wildlife from moving into the Project Site. Additionally, the Project Site's value in providing wildlife movement opportunities is reduced by the fact that it is bordered by residential development to the north, west, south, and east. No migratory wildlife corridors were identified within the Project Site. No impacts resulting from the Project are expected to occur to wildlife corridors.

Potential for maternity roosting sites for bat species are present on the Project Site in the form of palm trees with large frond skirts, buildings, and a box culvert. The presence of maternity roosting sites would need to be confirmed during the maternity season through appropriate focused bat survey efforts. If present, the maternity roosting sites would be considered native wildlife nursery sites. Impacts to nursery sites would be less than significant with the implementation of MM BIO-2.

## **5.5 Habitat Conservation Plans and Natural Community Conservation Plans**

The Project Site is located within the planning area for the MSHCP, but outside of any Cell Groups, Criteria Cells, and Subunit designations. The Project Site is located within a designated survey area for burrowing owl. Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources including riparian/riverine areas, vernal pools, fairy shrimp, burrowing owl, and Narrow Endemic Plant Species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. These resources were assessed during the reconnaissance survey and are discussed below in relation to the Project.

The Proposed Project consists of roadway expansion of Ontario Avenue, providing three lanes of vehicular travel and bike lanes, resurfacing and restriping of the roadway, construction of raised landscaped median islands, and other associated roadway upgrades. In addition, the existing 8-inch PVC reclaimed water main line will be extended and sewer laterals will be constructed. Because development of the Project Site is a covered activity within the MSHCP, it is an allowable use that has been contemplated within the MSHCP. However, projects that are covered still need to comply with MSHCP requirements.

### **5.5.1 Riparian/Riverine Areas, Vernal Pools, and Fairy Shrimp Species (MSHCP Section 6.1.2)**

In accordance with Section 6.1.2 of the MSHCP, the biological reconnaissance survey included an assessment for riparian and riverine communities, vernal pools, and fairy shrimp. The MSHCP defines riparian/riverine area as "lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or that depend upon soil moisture from a nearby fresh water source, or areas with freshwater flow during all or a portion of the year."

The Project Site consists primarily of developed land. Where soils were present, they consisted primarily of gravelly loam and were compacted or anthropogenically altered from their natural state. The Project Site

lacks clay soils. No riparian habitat was identified within the Project Site. No vernal pool habitat or suitable habitat for fairy shrimp were documented during the biological reconnaissance survey.

A formal ARD was not conducted for the Project Site. However, the desktop review identified two aquatic resources within the Project Site. The first aquatic feature was not observed during the biological survey and is not visible on aerial imagery. This feature was likely piped underground when initial development of the area occurred. The second feature, a concrete-lined drainage channel, was visible during the biological survey.

Although the concrete-lined drainage channel lacked vegetation, it provides potentially suitable roosting habitat for one special-status species, pallid bat, as well as non-special-status bat species. While the drainage channel is concrete-lined and lacks vegetation, it provides suitable habitat for special-status wildlife species and can also be utilized by bird and raptor species protected under the MBTA. Direct impacts to species that utilize this area could occur in the form of habitat loss, mortality, injury, and/or nest failure. Indirect impacts in the form of habitat degradation, increased human activity, noise, dust, nighttime lighting, and/or ground vibrations may also occur.

If impacts to these two aquatic features is unavoidable, consultation with the agencies regarding regulatory permitting will be required. Preparation of a DBESP will also be required to satisfy MSHCP requirements. Note that a DBESP is required under the MSHCP regardless of agency jurisdiction of aquatic resources because the DBESP also addresses habitat for special-status species. If Project-related impacts to riparian/riverine areas occur, implementation of MM BIO-4 would reduce these impacts to a level that is less than significant.

The MSHCP defines vernal pools as:

seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season.

Based on the literature review, field survey observations, and Google Earth imagery, the site appears to have been developed for at least 20 years. During the biological reconnaissance survey, there were no indications of the presence of vernal pools. No fairy shrimp species are expected to be within the Project Site. ECORP determined that fairy shrimp species have no potential to occur due to a lack of clay soils, developed nature of the Project Site, and no recent records in CNDDDB within 5 miles of the Project Site. No additional surveys are required due to a lack of suitable habitat. The Project is consistent with Section 6.1.2 of the MSHCP.

### **5.5.2 Narrow Endemic Plant Species (MSHCP Section 6.1.3)**

ECORP reviewed the RCA MSHCP Information Map to determine whether the Project Site is located within a Narrow Endemic Plant Species Survey Area (NEPSSA), in accordance with Section 6.1.3 of the MSHCP. The Project Site is not located within a NEPSSA or a Criteria Area. Therefore, no focused surveys for narrow endemic plant species are warranted, and the Project is consistent with Section 6.1.3 of the MSHCP.

### 5.5.3 Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to the Project Site because the Project Site is not situated adjacent to any wildlands or MSHCP-designated Conservation Areas. Therefore, the Project is consistent with Section 6.1.4 of the MSHCP.

### 5.5.4 Burrowing Owl Habitat Assessment (MSHCP Section 6.3.2)

A small portion of the Project Site is within a burrowing owl survey area as designated by the MSHCP and is subject to the MSHCP burrowing owl survey requirements. This small portion is located within the disturbed land cover, located at the corner of South Lincoln Avenue and Othello Lane, and is mapped on Figure 4. ECORP assessed the entire Project Site and a 500-foot buffer during the reconnaissance survey for potential burrowing owl habitat. The habitat assessment was performed in accordance with the MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006).

Neither the area designated as a burrowing owl survey area nor the remainder of the Project Site offers suitable habitat for burrowing owl. The disturbed lot comprising the designated burrowing owl survey area is surrounded by development and is unsuitable for burrowing owl. This disturbed area would not support wintering or breeding activities due to the lack of suitable habitat. Despite the presence of several very small rodent burrows, the disturbed lot lacked an abundant prey source and large enough burrows to provide suitable habitat for burrowing owl. The few burrows observed were too small to support burrowing owl and evidence of regular ground disturbance (i.e., tilling) was evident. In addition to the lack of suitable habitat, the small size of the disturbed lot, urban setting, and location within the species' range likely precludes the species from occurring in the Project Site and 500-foot buffer. Finally, no burrowing owls, occupied burrows (i.e., burrows containing whitewash, pellets, feathers, bones of prey), or owl sign (e.g., whitewash, pellets, feathers, prey remains) were observed during the burrowing owl habitat assessment. Therefore, no further surveys are required for burrowing owl, and the Project is consistent with Section 6.3.2 of the MSHCP.

### 5.5.5 Additional Surveys (MSHCP Section 6.3.2)

ECORP reviewed the RCA MSHCP Information Map to determine if the Project Site was located within any other MSHCP-designated survey areas beyond burrowing owl. The Information Map revealed that the Project Site is not located within amphibian species, criteria area species, or mammalian species survey areas. Therefore, no further habitat assessments or surveys are required for amphibian species, criteria area species, or mammalian species.

## 6.0 MITIGATION MEASURES

The following mitigation measures would reduce impacts to sensitive biological resources to a less than significant level.

### **BIO-1 Preconstruction Surveys for Crotch bumble bee: If the Crotch bumble bee is no longer a Candidate or formally Listed species under the California ESA at the time ground-**

**disturbing activities occur, then no additional protection measures are proposed for the species.**

If the Crotch bumble bee is legally protected under the California ESA as a Candidate or Listed species at the time ground-disturbing activities are scheduled to begin, preconstruction surveys shall be conducted in accordance with CDFW's Survey Considerations for California ESA Candidate Bumble Bee Species (CDFW 2023d) the season immediately prior to project implementation. A minimum of three Crotch bumble bee preconstruction surveys shall be conducted at 2- to 4-week intervals during the colony active period (April through August) when Crotch bumble bees are most likely to be detected. Non-lethal, photo voucher surveys shall be completed by a biologist who holds a Memorandum of Understanding to capture and handle Crotch bumble bee (if nesting and chilling protocol is to be utilized) or by a CDFW-approved biologist experienced in identifying native bumble bee species (if surveys are restricted to visual surveys that will provide high-resolution photo documentation for species verification). The surveyor shall walk through all areas of suitable habitat focusing on areas with floral resources. Surveys shall be completed at a minimum of 1 person-hour of searching per 3 acres of suitable habitat during suitable weather conditions (sustained winds less than 8 miles per hour, mostly sunny to full sun, temperatures between 65 and 90 degrees Fahrenheit) at an appropriate time of day for detection (at least one hour after sunrise and at least 2 hours before sunset, though ideally between 9:00 a.m. and 1:00 p.m.).

If Crotch bumble bees are detected, CDFW shall be notified by the designated biologist as further coordination may be required to avoid or mitigate certain impacts. At a minimum, two nesting surveys shall be conducted with focus on detecting active nesting colonies within one week and 24-hours immediately prior to ground disturbing activities that are scheduled to occur during the flight season (February through October). If an active Crotch bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take and the designated biologist shall coordinate with CDFW to determine if an Incidental Take Permit under Section 2081 of the California ESA will be required. Nest avoidance buffers may be removed at the completion of the flight season and/or once the qualified biologist deems the nesting colony is no longer active and CDFW has provided concurrence of that determination. If no nests are found but the species is present, a full-time qualified biological monitor shall be present during vegetation or ground disturbing activities that are scheduled to occur during the queen flight period (February through March), colony active period (March through September), and/or gyne flight period (September through October). Because bumble bees move nest sites each year, two preconstruction nesting surveys shall be required during each subsequent year of construction, regardless of the previous year's findings, whenever vegetation and ground disturbing activities are scheduled to occur during the flight season if nesting and foraging habitat is still present or has re-established.

**BIO-2: Bat Habitat Assessment and Management Plan: Prior to the initiation of Project activities, a qualified biologist will conduct a bat habitat assessment for suitable bat roosting habitat.** The habitat assessment should be conducted at least 1 year prior to the initiation of construction activities. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or signs of bat use are identified during the assessment, the roosting habitat should be avoided to the extent possible. If the bat habitat assessment surveys reveal potential bat roosting habitat within the Project, a Bat Management Plan that will include specific avoidance and minimization measures to reduce impacts to roosting bats shall be prepared and consultation with CDFW initiated prior to the commencement of construction activities. The Project-specific Bat Management Plan may include any of the following as necessary and appropriate to the findings of the habitat assessment: emergence and/or preconstruction surveys for roosting bats including acoustic monitoring, roost removal timing and methodology, no-disturbance buffers, passive exclusion of bats, and/or species-specific replacement mitigation habitat.

**BIO-3 Preconstruction Nesting Birds Surveys: To the greatest extent practicable, ground-disturbing activities, including vegetation removal and building demolition, shall be conducted outside of the nesting bird season (approximately September 16 through January 31) to avoid direct and indirect impacts to nesting birds.** This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. If Project-related activities cannot avoid the nesting bird season, then preconstruction surveys and biological monitoring during Project activities will be necessary to avoid impacts to nesting birds.

Preconstruction surveys shall be conducted for nesting birds including special-status species. Surveys will be conducted by a qualified bird biologist who is knowledgeable of the bird species occurring in the region and is experienced surveying for and identifying the common and special-status bird species with potential to occur. Surveys will be conducted in all areas of suitable habitat within the Project Site and an appropriately sized buffer where Project-related activities have potential to impact nesting birds during the breeding season. The survey shall be completed no more than three days prior to initial ground disturbance during the nesting bird season. Due to the size of the Project, multiple preconstruction nesting bird surveys may need to be conducted to account for different Project activities commencing in various areas of the Project or to account for any lapse in Project activities during the breeding season. The nesting bird survey shall include the Project Site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly due to construction activity or noise. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If an active nest is identified, the biologist shall establish an appropriately sized non-disturbance buffer around the nest using flagging or staking until nesting has been completed. The width of the non-disturbance buffer will be determined by the Project biologist. Typically, this is a minimum of 300 feet for passerine species from the nest site in all directions (500 feet is typically recommended by CDFW for raptors and listed species), until the juveniles have fledged and left the nest site and there

has been no evidence of a second attempt at nesting. Construction activities, including vegetation removal activities, shall not occur within any non-disturbance buffer zones until the nest is deemed inactive by the qualified bird biologist.

**BIO-4 Aquatic Resources and Best Management Practices (BMPs): The Project Site crosses over two channels that are potentially jurisdictional to the USACE, Santa Ana RWQCB, and CDFW.** If these channels cannot be avoided by Project activities and are to be impacted (e.g., altered or filled) in any way by the Project, coordination and regulatory permitting with the aforementioned agencies will be necessary and a DBESP should be prepared due to impacts to a riverine feature per the MSHCP. Therefore, all channels and potentially jurisdictional features should be avoided by the Project, through use of the following BMPs:

- All ground-based equipment and vehicles will stay on designated, existing dirt roads within the Project boundaries.
- A Stormwater Pollution Prevention Plan that established BMPs to deal with stormwater runoff will be prepared and followed in order to minimize soil erosion and avoid any stormwater runoff into jurisdictional features.
- All staging of construction materials will be located within the Project boundaries and outside of jurisdictional features.
- An erosion control plan will be developed to prevent road maintenance and Project-related, road use-generated erosion from entering channels.
- Schedule operations and use of the access roads for when rain, runoff, or wet soils, are less likely. Follow seasonal restrictions in the wet weather operation section of the erosion control plan.
- Service and refueling areas will be established at least 100 meters away from wet areas and surface flow.
- All construction activities will remain at least 25 feet away from any jurisdictional features.
- Live vegetation located in and near jurisdictional features will not be thinned, modified, or pruned.

**BIO-5 Biological Monitoring: Prior to the start of construction, a Worker Environmental Awareness Program (WEAP) shall be developed.** A qualified biologist with experience with the sensitive biological resources in the region will provide WEAP training to all personnel working in the Project area (either temporarily or permanently) prior to the start of Project activities. The WEAP would include, but will not be limited to, discussions of the sensitive biological resources associated with the Project with a specific focus on aquatic resources, Crotch bumble bee, nesting birds, and special-status bat species with potential to occur within the Project Site.

A qualified biologist familiar with species that have potential to occur on the Project Site shall be present to monitor all ground-disturbing and vegetation-removal activities and structure demolition activities conducted for the Project, regardless of the time of year these

activities are conducted. The qualified biologist shall be experienced with identification of sensitive and common biological resources in the region including aquatic resources, Crotch bumble bee, roosting bats, and nesting birds. The monitor will be responsible for working with The City of Corona and their contractor to ensure that impacts to special-status species and sensitive biological resources are avoided to the greatest extent possible. Biological monitoring shall take place until the construction is completed or at the discretion of the Project biologist based on expected Project activities. In general, the timing and frequency of biological monitoring will be implemented at the discretion of the Project biologist. Construction activities should not occur within any non-disturbance buffer zones established around environmentally sensitive areas as established by the Project biologist. If special-status species, including Crotch bumble bee, are detected during biological monitoring activities and Project-related impacts to the species are unavoidable, then consultation with the USFWS and/or CDFW may need to be conducted to develop and implement a mitigation plan that will avoid and offset impacts to these species or obtain take authorization under the federal and California ESAs before Project activities can continue. Mitigation measures may consist of seasonal work restrictions or additional biological monitoring activities after initial ground-disturbing activities are complete.

## **6.1 Additional Recommendations**

The MSHCP provides additional measures in the *Construction Guidelines* under Section 7.5.3 and in *Standard Best Management Practices* provided in Volume I, Appendix C of the plan. These measures include the following:


- Clearly marking or flagging work area boundaries.
- To ensure that vegetation and wildlife habitat outside of the designated work areas are not impacted by Project-related activities, the City of Corona should ensure that all vehicles and equipment are parked on either pavement, existing roads, and/or previously disturbed areas.
- Prohibiting domestic animals from being in the Project Area during Project activities.
- All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes) should be stored in closed containers and/or removed from the site each day.
- Firearms should not be allowed onsite, unless either approved by the City of Corona for security personnel or authorized pursuant to a CDFW license.
- Cap all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater while stored onsite or when not in use.
- Restrict use of rodenticides and herbicides on the Project to prevent primary or secondary poisoning of wildlife including burrowing owl and other raptors and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control



must be conducted, zinc phosphide should be used because of a proven lower risk to burrowing owl.

## **7.0 CERTIFICATION**

*I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.*

Signed:  \_\_\_\_\_ Date: February 2024  
Taylor Dee  
Senior Biologist

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## **LIST OF APPENDICES**

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Appendix A – Potential for Occurrence of Sensitive Plant Species

Appendix B – Potential for Occurrence of Sensitive Wildlife Species

Appendix C – Representative Site Photographs

Appendix D – Plant Species Observed

Appendix E – Wildlife Species Observed

Potential for Occurrence of Sensitive Plant Species

Appendix A – Plant Potential for Occurrence

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Abronia villosa</i></b> var. <b><i>aurita</i></b> chaparral sand- verbena	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	(Jan) Mar-Sep 75-1600	Occurs in chaparral, coastal scrub, and desert dune habitats. Often found in sandy soil.	<b>Presumed Absent:</b> While sandy loam soils are present in a small portion of the Project Site, that area is largely disturbed, and no suitable habitat is present. Additionally, only historic records exist within 5 miles of the Project Site.
<b><i>Allium marvinii</i></b> Yucaipa onion	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-May 760-1065	Occurs in openings of chaparral in clay soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Allium munzii</i></b> Munz' onion	Fed: Ca: CRPR: MSHCP:	<b>END THR</b> 1B.1 COV	Mar-May 297-1070	Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland in mesic clay soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Ambrosia pumila</i></b> San Diego ambrosia	Fed: Ca: CRPR: MSHCP:	<b>END</b> none 1B.1 COV	Apr-Oct 20-415	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Found in sandy loam or clay soils, often in disturbed areas and sometimes in alkaline areas.	<b>Presumed Absent:</b> While marginally suitable disturbed habitat is present in a small portion of the Project Site, there are no records of the species within 5 miles of the Site.
<b><i>Arctostaphylos rainbowensis</i></b> rainbow manzanita	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Dec-Mar 205-670	Occurs in chaparral habitat.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Astragalus brauntonii</i></b> Braunton's milk- vetch	Fed: Ca: CRPR: MSHCP:	<b>END</b> none 1B.1 none	Jan-Aug 5-640	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Sometimes found in recently burned or disturbed areas. Usually found in sandstone soils with carbonate layers.	<b>Presumed Absent:</b> One recent record (Occ. #4) was documented approximately 4.7 miles west of the Project Site in the nearby undeveloped canyons (CDFW 2023). However, no suitable habitat is present in the Project Site.

Appendix A – Plant Potential for Occurrence

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Astragalus pachypus</i></b> var. <b><i>jaegeri</i></b> Jaeger's milk-vetch	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Dec-Jun 365-975	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Sometimes found in sandy or rocky soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Atriplex coronata</i></b> var. <b><i>notatior</i></b> San Jacinto Valley crownscale	Fed: Ca: CRPR: MSHCP:	<b>END</b> none 1B.1 COV	Apr-Aug 139-500	Occurs in alkaline soils of playas, vernal pools, and in mesic valley and foothill grasslands.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Atriplex coulteri</i></b> Coulter's saltbush	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Mar-Oct 3-460	Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. Found sometimes in alkaline and clay soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Atriplex parishii</i></b> Parish's brittle-scale	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Jun-Oct 25-1900	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Atriplex serenana</i></b> var. <b><i> davidsonii</i></b> Davidson's salt-scale	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Oct 10-200	Occurs in coastal bluff scrub and coastal scrub in alkaline soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Baccharis malibuensis</i></b> Malibu baccharis	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Aug 150-305	Occurs in chaparral, cismontane woodland, coastal scrub and riparian woodland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Berberis nevinii</i></b> Nevin's barberry	Fed: CA: CRPR: MSHCP:	<b>END</b> <b>END</b> 1B.1 COV	(Feb) Mar-Jun 70-825	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Sometimes found in sandy or gravelly soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.



Appendix A – Plant Potential for Occurrence

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Boechera johnstonii</i></b> Johnston's rockcress	Fed: CA: CRPR: MSHCP:	none none 1B.2 COV	Feb-Jun 1350-2150	Occurs in clay soils of chaparral and lower montane coniferous forest. Often found on eroded clay.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Brodiaea filifolia</i></b> thread-leaved brodiaea	Fed: Ca: CRPR: MSHCP:	<b>THR END</b> 1B.1 COV	Mar-Jun 24-1120	Occurs in cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools, and in openings of chaparral. Often found in clay soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Brodiaea orcuttii</i></b> Orcutt's brodiaea	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	May-Jul 30-1692	Occurs in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools in mesic, clay, and sometimes serpentinite soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>California macrophylla</i></b> round-leaved filaree	Fed: Ca: CRPR: MSHCP:	none none none COV	Mar-Jul 15-1200	Occurs in clay soils and openings of cismontane woodland, foothill woodland, valley grassland, and scrub habitats.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no records of the species within 5 miles of the Site.
<b><i>Calochortus palmeri</i> var. <i>munzii</i></b> San Jacinto mariposa lily	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 855-2200	Occurs in chaparral, lower montane coniferous forest, and meadows and seeps.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Calochortus plummerae</i></b> Plummer's mariposa lily	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	May-Jul 100-1700	Occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland in granitic, rocky soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Calochortus weedii</i></b> var. <i>intermedius</i> intermediate mariposa-lily	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	May-Jul 105-855	Occurs in chaparral, coastal scrub, and valley and foothill grassland in rocky, calcareous soils.	<b>Presumed Absent:</b> While recent records for the species exist in the nearby undeveloped canyons, no

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
					suitable habitat is present on the Project Site.
<b><i>Ceanothus ophiochilus</i></b> Vail Lake ceanothus	Fed: Ca: CRPR: MSHCP:	<b>THR END</b> 1B.1 COV	Feb-Mar 580-1065	Occurs in chaparral in gabbroic or pyroxenite-rich outcrops.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Centromadia pungens</i> ssp. <i>laevis</i></b> smooth tarplant	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Apr-Sep 0-640	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland habitats. Often found in alkaline soil.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Chorizanthe leptotheca</i></b> peninsular spineflower	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	May-Aug 300-1900	Occurs in granitic soils of chaparral, coastal scrub, and lower montane coniferous forests in alluvial fan habitats.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Chorizanthe parryi</i> var. <i>fernandina</i></b> San Fernando Valley spineflower	Fed: Ca: CRPR: MSHCP:	none <b>END</b> 1B.1 none	Apr-Jul 150-1220	Occurs in sandy soils of coastal scrub and valley and foothill grassland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Chorizanthe parryi</i> var. <i>parryi</i></b> Parry's spineflower	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Apr-Jun 275-1220	Occurs in openings of chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitat. Sometimes found in sandy or rocky soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Chorizanthe polygonoides</i> var. <i>longispina</i></b> long-spined spineflower	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 30-1530	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pool habitats. Often found in clay soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Clinopodium chandleri</i></b> San Miguel savory	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Mar-Jul 120-1075	Occurs in metavolcanic soils of chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
				Sometimes found in rocky or gabbroic soils.	
<b><i>Comarostaphylis diversifolia</i></b> ssp. <b><i>diversifolia</i></b> summer holly	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Apr-Jun 30-790	Occurs in chaparral or cismontane woodland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Deinandra mohavensis</i></b> Mojave tarplant	Fed: Ca: CRPR: MSHCP:	none <b>END</b> 1B.3 COV	(Jan-May) Jun- Oct 640-1600	Occurs in chaparral, coastal scrub, and riparian scrub in mesic soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Diplacus clevelandii</i></b> Cleveland's bush monkeyflower	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	Apr-Jul 450-2000	Occurs in chaparral, cismontane woodland, and lower montane coniferous forest.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Dodecahema leptoceras</i></b> slender-horned spineflower	Fed: Ca: CRPR: MSHCP:	<b>END</b> <b>END</b> 1B.1 COV	Apr-Jun 200-760	Occurs in sandy soils of chaparral, cismontane woodland, and alluvial fan coastal scrub.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Dudleya cymosa</i></b> ssp. <b><i>ovatifolia</i></b> Santa Monica dudleya	Fed: Ca: CRPR: MSHCP:	<b>THR</b> none 1B.1 none	Mar-Jun 150-1675	Occurs in rocky soils of chaparral and coastal scrub in rocky soils. Sometimes found in sedimentary or volcanic soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Dudleya multicaulis</i></b> many-stemmed dudleya	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 15-790	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in clay soils.	<b>Presumed Absent:</b> One recent record (Occ. #191) was documented approximately 3.2 miles west of the Project Site in the nearby undeveloped canyons (CDFW 2023). However, no suitable habitat is present in the Project Site.
<b><i>Dudleya viscida</i></b> sticky dudleya	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	May-Jun 10-550	Occurs in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub in rocky soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
					records of the species within 5 miles of the Site.
<b><i>Eriastrum densifolium</i></b> ssp. <b><i>sanctorum</i></b> Santa Ana River woollystar	Fed: Ca: CRPR: MSHCP:	<b>END</b> <b>END</b> 1B.1 COV	Apr-Sep 91-610	Occurs in chaparral and alluvial fan coastal scrub. Sometimes found in sandy or gravelly soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Eryngium aristulatum</i></b> var. <b><i>parishii</i></b> San Diego button-celery	Fed: Ca: CRPR: MSHCP:	<b>END</b> <b>END</b> 1B.1 COV	Apr-Jun 20-620	Occurs in coastal scrub, valley and foothill grassland, and vernal pools in mesic soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Galium angustifolium</i></b> ssp. <b><i>jacinticum</i></b> San Jacinto Mountains bedstraw	Fed: Ca: CRPR: MSHCP:	none none 1B.3 COV	Jun-Aug 1350-2100	Occurs in lower montane coniferous forest.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Galium californicum</i></b> ssp. <b><i>primum</i></b> Alvin Meadow bedstraw	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	May-Jul 1350-1700	Occurs in chaparral and lower montane coniferous forest in granitic, sandy soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Hesperocyparis forbesii</i></b> Tecate cypress	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	N/A 80-1500	Occurs in clay soils of closed-cone coniferous forests and chaparral. Sometimes found in gabbroic or metavolcanic soils.	<b>Presumed Absent:</b> While recent records for the species exist in the nearby undeveloped canyons, no suitable habitat is present on the Project Site.
<b><i>Hesperocyparis goveniana</i></b> Gowen cypress	Fed: Ca: CRPR: MSHCP:	<b>THR</b> none 1B.2 none	N/A 30-300	Occurs in maritime chaparral and closed-cone coniferous forests.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Heuchera hirsutissima</i></b> shaggy-haired alumroot	Fed: Ca: CRPR: MSHCP:	none none 1B.3 COV	(May) Jun-Jul 1520-3500	Occurs in subalpine coniferous forest and upper montane coniferous forest in rocky, granitic soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Holocarpha virgata</i></b> ssp. <b><i>elongata</i></b> graceful tarplant	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	May-Nov 60-1100	Occurs in chaparral, cismontane woodland, coastal sage scrub, and valley and foothill grassland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Horkelia cuneata</i></b> var. <b><i>puberula</i></b> mesa horkelia	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	Feb-Jul (Sep) 70-810	Occurs in cismontane woodland, coastal scrub, and maritime chaparral. Sometimes found in sandy or gravelly soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Hulsea vestita</i></b> ssp. <b><i>callicarpa</i></b> beautiful hulsea	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	May-Oct 915-3050	Occurs in granitic soils of chaparral and lower montane coniferous forest. Sometimes found in rocky or gravelly soils.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Lasthenia glabrata</i></b> ssp. <b><i>coulteri</i></b> Coulter's goldfields	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Feb-Jun 1-1220	Occurs in playas, vernal pools, and in coastal salt marshes and swamps.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Lepechinia cardiophylla</i></b> heart-leaved pitcher sage	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 520-1370	Occurs in closed-cone coniferous forest, chaparral, and cismontane woodland.	<b>Presumed Absent:</b> While recent records for the species exist in the nearby undeveloped canyons, no suitable habitat is present on the Project Site.
<b><i>Lilium humboldtii</i></b> ssp. <b><i>ocellatum</i></b> ocellated Humboldt lily	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	Mar-Jul (Aug) 30-1800	Occurs in openings of chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Lilium parryi</i></b> Lemon lily	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Jul-Aug 1220-2745	Occurs in mesic soils of lower and upper montane coniferous forests, meadows and seeps, and riparian forests.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Limnanthes alba</i></b> ssp. <b><i>parishii</i></b> Parish's meadowfoam	Fed: Ca: CRPR: MSHCP:	none <b>END</b> 1B.2 COV	Apr-Jun 600-2000	Occurs in vernal mesic soils in lower montane coniferous forests,	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
				meadows and seeps, and vernal pools.	suitable habitat is present on site.
<b><i>Microseris douglasii</i></b> ssp. <b><i>platycarpa</i></b> small-flowered microseris	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	Mar-May 15-1070	Occurs in clay soils of cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Monardella macrantha</i></b> ssp. <b><i>hallii</i></b> Hall's monardella	Fed: Ca: CRPR: MSHCP:	none none 1B.3 COV	Jun-Oct 730-2195	Occurs in broadleaved upland forest, cismontane woodland, chaparral, lower montane coniferous forest, and valley and foothill grassland.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Muhlenbergia californica</i></b> California muhly	Fed: Ca: CRPR: MSHCP:	none none 4.3 COV	Jun-Sep 100-2000	Occurs in mesic soils of chaparral, coastal scrub, lower montane coniferous forest, and in meadows, seeps, and along streambanks.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Nama stenocarpa</i></b> mud nama	Fed: Ca: CRPR: MSHCP:	none none 2B.2 COV	Jan-Jul 5-500	Occurs in marshes and swamps and along lake margins and riverbanks.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Navarretia fossalis</i></b> spreading navarretia	Fed: Ca: CRPR: MSHCP:	<b>THR</b> none 1B.1 COV	Apr-Jun 30-655	Occurs in chenopod scrub, playas, vernal pools, and in shallow freshwater marshes and swamps.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Navarretia prostrata</i></b> prostrate navarretia	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Apr-Jul 3-1210	Occurs in mesic soils of coastal scrub, meadows and seeps, vernal pools, and in alkaline valley and foothill grassland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Nolina cismontana</i></b> chaparral nolina	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	(Mar) May-Jul 140-1,275	Occurs in chaparral and coastal scrub. Sometimes occurs in gabbroic or sandstone soils.	<b>Presumed Absent:</b> One recent record (Occ. #56) was documented approximately 1.1 miles southwest of the Project Site in the nearby undeveloped canyons

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<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
					(CDFW 2023). However, no suitable habitat is present in the Project Site.
<b><i>Orcuttia californica</i></b> California Orcutt grass	Fed: Ca: CRPR: MSHCP:	<b>END</b> <b>END</b> 1B.1 COV	Apr-Aug 15-660	Occurs in vernal pools, freshwater wetlands, valley grassland, and other wetland-riparian habitats.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Penstemon californicus</i></b> California beardtongue	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	May-Jun (Aug) 1170-2300	Occurs in sandy soils of chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Pentachaeta aurea</i></b> ssp. <b><i>allenii</i></b> Allen's pentachaeta	Fed: Ca: CRPR: MSHCP:	none none 1B.1 none	Mar-Jun 75-520	Occurs in valley and foothill grassland and in openings of coastal scrub.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Phacelia stellaris</i></b> Brand's star phacelia	Fed: Ca: CRPR: MSHCP:	none none 1B.1 COV	Mar-Jun 1-400	Occurs in coastal dunes and coastal scrub.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Polygala cornuta</i></b> var. <b><i>fishiae</i></b> Fish's milkwort	Fed: Ca: CRPR: MSHCP:	none none 4.3 COV	May-Aug 90-1270	Occurs in chaparral, cismontane woodland, and riparian woodland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Potentilla rimicola</i></b> cliff cinquefoil	Fed: Ca: CRPR: MSHCP:	none none 2B.3 COV	Jul-Sep 2400-2800	Occurs in granitic and rocky soils of subalpine coniferous forest and upper montane coniferous forest.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Pseudognaphalium leucocephalum</i></b> white rabbit-tobacco	Fed: Ca: CRPR: MSHCP:	none none 2B.2 none	(Jul) Aug-Nov (Dec) 0-2100	Occurs in sandy or gravelly soils of chaparral, cismontane woodland,	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent

Appendix A – Plant Potential for Occurrence

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
				coastal scrub, and riparian woodland.	records of the species within 5 miles of the Site.
<b><i>Romneya coulteri</i></b> Coulter's matilija poppy	Fed: Ca: CRPR: MSHCP:	none none 4.2 COV	Mar-Jul (Aug) 20-1200	Occurs in chaparral and coastal scrub. Often found in burned areas.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Senecio aphanactis</i></b> chaparral ragwort	Fed: Ca: CRPR: MSHCP:	none none 2B.2 none	Jan-Apr (May) 15-800	Occurs in chaparral, cismontane woodland, and coastal scrub. Sometimes found in alkaline soils.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Sibaropsis hammittii</i></b> Hammitt's clay-cress	Fed: Ca: CRPR: MSHCP:	none none 1B.2 COV	Mar-Apr 720-1065	Occurs in clay soils of valley and foothill grassland, and in openings of chaparral.	<b>Presumed Absent:</b> The Project Site is outside of the elevational range for the species and no suitable habitat is present on site.
<b><i>Sidalcea neomexicana</i></b> salt spring checkerbloom	Fed: Ca: CRPR: MSHCP:	none none 2B.2 none	Mar-Jun 15-1530	Occurs in alkaline, mesic soils of chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Symphotrichum defoliatum</i></b> San Bernardino aster	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	Jul-Nov 2-2040	Occurs in meadows and seeps, marshes, and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernal mesic valley and foothill grassland. Often found in disturbed areas and near ditches, streams, streambanks, and springs.	<b>Presumed Absent:</b> While marginally suitable disturbed habitat is present in a small portion of the Project Site, there are no records of the species within 5 miles of the Site.
<b><i>Tortula californica</i></b> California screw moss	Fed: Ca: CRPR: MSHCP:	none none 1B.2 none	N/A 10-1460	Occurs in sandy soils of chenopod scrub and valley and foothill grassland.	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and there are no recent records of the species within 5 miles of the Site.
<b><i>Trichocoronis wrightii</i></b> var. <b><i>wrightii</i></b>	Fed: Ca:	none none	May-Sep 5-435	Occurs in alkaline soils of meadows and seeps, marshes and swamps,	<b>Presumed Absent:</b> No suitable habitat is present on the Project Site and



Appendix A – Plant Potential for Occurrence

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Bloom Period &amp; Elevation (meters)</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
Wright's trichocoronis	CRPR: MSHCP:	2B.1 COV		riparian forests, and vernal pools.	there are no recent records of the species within 5 miles of the Site.

**Status Codes:**

**Federal Designations:**

(Federal Endangered Species Act, USFWS)

**END:** federally listed, endangered

**THR:** federally listed, threatened

**State designations:**

(California Endangered Species Act, CDFG)

**END:** state-listed, endangered

**THR:** state-listed, threatened

CAN: Candidate for state listing

FP: Fully Protected Species

SSC: Species of Special Concern

**CRPR Ranking**

**1A:** Presumed extinct

**1B:** Rare, threatened, or endangered in California and elsewhere

**2B:** Rare, threatened, or endangered in California, but more common elsewhere

**3:** Review list of plants requiring more study

**4:** Plants of limited distribution watch list

**Other Designations**

COV: Covered under the Western Riverside MSHCP

**CRPR Threat Code**

**0.1:** Seriously threatened in California

**0.2:** Fairly threatened in California

**0.3:** Not very threatened in California

Source: California Natural Diversity Data Base (CNDDDB) California Native Plant Society Electronic Inventory (CNPSEI) Corona South, Prado Dam, Corona North, Riverside West, Black Star Canyon, Lake Mathews, El Toro, Santiago Peak, and Alberhill 7.5-minute quads.

Potential for Occurrence of Sensitive Wildlife Species

<b>Scientific Name Common Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b>Invertebrates</b>			
<b><i>Bombus crotchii</i></b> Crotch bumble bee	Fed: none CA: <b>CAN</b> MSHCP: none	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats. Prefers a diet consisting of certain plant species including milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	<b>Low.</b> Limited nesting habitat was present in the Project Site, in the disturbed lot where small mammal burrows were present. Ornamental vegetation in the urban/developed areas of the Project Site provide foraging habitat for the species. Only historic CNDDDB records exist within 5 miles of Project Site; however, 1 recent record (Occ #423) was documented approximately 9 miles northwest of the Project Site at Chino Hills State Park in July 2020. The closest CNDDDB record (Occ #197) was recorded in March 1933 in Corona, approximately 0.3 miles north of the Project Site. No Bumble Bee Watch records were identified within 5 miles of the Project Site. The closest Bumble Bee Watch records were 8 individuals documented on August 2023 at Walnut Reservoir in Anaheim approximately 8.8 miles west of the Project Site.
<b><i>Branchinecta lynchi</i></b> vernal pool fairy shrimp	Fed: <b>THR</b> CA: none MSHCP: COV	Vernal pools and ephemeral wetlands. Typically occurs in small and shallow pools with mud or grassy bottoms.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Branchinecta sandiegoensis</i></b> San Diego fairy shrimp	Fed: <b>END</b> CA: none MSHCP: none	Restricted to vernal and shallow ephemeral basins in Orange and San Diego Counties.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Danaus plexippus pop. 1</i></b> monarch butterfly  (overwintering population)	Fed: <b>FC</b> CA: none MSHCP: none	Roosts in wind-protected tree groves (Coastal California conifer, Eucalyptus) from Northern Mendocino to Baja California.	<b>Presumed Absent.</b> No suitable overwintering habitat is present on the Project Site. Several lone standing eucalyptus trees were present in the buffer; however, they are not wind protected and no tree grove habitat was present

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
				within the Project Site or 500-ft buffer.
<b><i>Euphydryas editha quino</i></b> Quino checkerspot butterfly	Fed: CA: MSHCP:	<b>END</b> none COV	Occurs in sunny openings within chaparral and coastal sage scrub in parts of Riverside and San Diego counties. Occurs on hills and mesas along the coast. Requires high densities of food plants <i>Plantago erecta</i> , <i>P. insularis</i> , and <i>Orthocarpus purpurescens</i> .	<b>Presumed Absent.</b> No suitable habitat was present within the Project Site or 500-foot buffer.
<b><i>Linderiella santarosae</i></b> Santa Rosa Plateau fairy shrimp	Fed: CA: MSHCP:	none none COV	Occurs in cool-water vernal pools that are formed from Southern Basalt Flows.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Rhaphiomidas terminatus abdominalis</i></b> Delhi Sands flower-loving fly	Fed: CA: MSHCP:	<b>END</b> none COV	Dune habitat, with fine sandy Delhi soils.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site, and the Project Site is outside the known range for the species.
<b><i>Streptocephalus woottoni</i></b> Riverside fairy shrimp	Fed: CA: MSHCP:	<b>END</b> none COV	Occurs in vernal pools, tectonic swales, and earth slump basins in western Riverside, Orange, and San Diego counties in grassland and coastal sage scrub.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b>Fishes</b>				
<b><i>Catostomus santaanae</i></b> Santa Ana sucker	Fed: CA: MSHCP:	<b>THR</b> none COV	Pools and runs of creeks and small to medium rivers with cool, shallow, clear, and unpolluted water.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Gila orcutti</i></b> arroyo chub	Fed: CA: MSHCP:	none SSC COV	Creeks, streams, and rivers with areas of slow-moving water with sand or mud bottoms. Ranges from San Diego to San Luis Obispo county. Requires deep pools, ponds, or slough-like areas and vegetation for spawning.	<b>Presumed Absent.</b> No suitable is present on the Project Site or 500-foot buffer.
<b><i>Oncorhynchus mykiss irideus pop. 10</i></b> steelhead – southern California DPS	Fed: CA: MSHCP:	<b>END</b> <b>CAN</b> none	Typically occurs in slow water steams or rivers.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site.
<b><i>Rhinichthys osculus ssp. 8</i></b>	Fed: CA: MSHCP:	none SSC none	Permanent flowing creeks and streams with shallow gravel and cobble riffles.	<b>Presumed Absent.</b> No suitable habitat is present on

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
Santa Ana speckled dace				the Project Site or 500-foot buffer.
<b>Amphibians</b>				
<b><i>Anaxyrus californicus</i></b> arroyo toad	Fed: CA: MSHCP:	<b>END</b> SSC COV	Sandy banks of rivers, arroyos, and streams with shallow sandy pools. Also found in riparian woodlands or uplands adjacent to arroyos.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Rana draytonii</i></b> California red-legged frog	Fed: CA: MSHCP:	<b>THR</b> SSC COV	Found near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Rana muscosa</i></b> southern mountain yellow-legged frog	Fed: CA: MSHCP:	<b>END</b> <b>END</b> COV	Ponds, streams, lakes, and isolated pools in southern Sierra Nevada Mountains and rocky streams within narrow canyons and the chaparral belt in Southern California mountains.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Spea hammondi</i></b> western spadefoot	Fed: CA: MSHCP:	<b>PT</b> SSC COV	Open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, sandy washes, river floodplains, alluvial fans, playas, and grasslands. Vernal pools are essential for breeding and egg-laying. The species is almost completely terrestrial, entering water only to breed.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Taricha torosa</i></b> coast range newt	Fed: CA: MSHCP:	none SSC COV	Mesic upland areas including grasslands, forests, and woodlands. Burrows in soil or wood debris.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b>Reptiles</b>				
<b><i>Anniella stebbinsi</i></b> <b>(formerly <i>A. pulchra</i>)</b> San Diegan legless lizard	Fed: CA: MSHCP:	none SSC none	Coastal sand dunes, and variety of interior habitats including sandy washes and alluvial fans. Occurs in moist warm loose soil with plant cover and sparsely vegetated beach dunes, pine-oak woodlands, desert scrub, chaparral, and stream terraces with sycamores, cottonwoods, or oaks.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
<b><i>Arizona elegans occidentalis</i></b> California glossy snake	Fed: CA: MSHCP:	none SSC none	Most common in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral. Prefers washes and sandy areas with patchy brush and rocks. Perennial plants necessary in habitat for food source.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Aspidoscelis tigris stejnegeri</i></b> coastal whiptail	Fed: CA: MSHCP:	none SSC COV	Arid habitats including chaparral, woodlands, and dry riparian areas.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site.
<b><i>Charina umbratica</i></b> southern rubber boa	Fed: CA: MSHCP:	none <b>THR</b> COV	Under rocks, woody debris, or in crevices in conifer or conifer-mixed semi-open forests and woodlands, patchy chaparral/shrublands, and meadows.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Coleonyx variegatus abbotti</i></b> San Diego banded gecko	Fed: CA: MSHCP:	none SSC COV	Rocky areas in coastal sage scrub and chaparral.	<b>Presumed Absent.</b> No suitable habitat was Present within the Project Site or 500-foot buffer.
<b><i>Crotalus ruber</i></b> red-diamond rattlesnake	Fed: CA: MSHCP:	none SSC COV	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats. Diet consists of birds, lizards, and small mammals including ground squirrels, wood rats, and rabbits.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Emys marmorata</i></b> <i>[Actinemys pallida]</i> western pond turtle	Fed: CA: MSHCP:	<b>PT</b> SSC COV	Occurs in aquatic, artificial flowing waters, south coast flowing waters, south coast standing waters, and wetland habitats. Needs basking sites (logs, rocks, and exposed banks) and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	<b>Presumed Absent.</b> No suitable habitat is present within the Project Site or 500-foot buffer.
<b><i>Lampropeltis zonata (parvirubra)</i></b> California mountain kingsnake  (San Bernardino population)	Fed: CA: MSHCP:	none none COV	Sun-exposed areas with woody debris and rocky outcrops in coastal sage scrub, chaparral, manzanita, riparian woodlands, oak-pine woodlands, and conifer forests. Occurs in the mountains of Southern California including San Bernardino, San Jacinto, and San Gabriel.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Lampropeltis zonata (pulchra)</i></b> California mountain kingsnake  (San Diego population)	Fed: CA: MSHCP:	none none COV	Sun-exposed areas with woody debris and rocky outcrops in coastal sage scrub, chaparral, manzanita, riparian woodlands, oak-pine woodlands, and conifer forests. Occurs in the Santa Ana and Santa Monica mountains, Hollywood Hills, and central San Diego County peninsular ranges.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Phrynosoma blainvillii</i></b> Blainville's horned lizard	Fed: CA: MSHCP:	none SSC COV	Occurs in chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, and valley & foothill grassland habitats. As well as open areas of valleys, foothills & semiarid mountains. Requires open areas for sunning, bushes to provide cover, and loose soil for burial. Diet consists mainly of ants and also small invertebrates. Most commonly found in lowlands along sandy washes with scattered low bushes.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Salvadora hexalepis virgultea</i></b> coast patch-nosed snake	Fed: CA: MSHCP:	none SSC none	Coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites. Diet consists mostly of lizards, along with small mammals.	<b>Presumed Absent.</b> No suitable habitat or small burrows are present on the Project Site or 500-foot buffer.
<b><i>Sceloporus graciosus vandenburgianus</i></b> southern sagebrush lizard	Fed: CA: MSHCP:	none none COV	Occurs in shrublands like chaparral, manzanita, ceanothus, open pine, and Douglas Fir forests within the mountains.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Thamnophis hammondii</i></b> two-striped gartersnake	Fed: CA: MSHCP:	none SSC none	Occur along aquatic habitats such as pools, creeks, and riparian areas usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests. Found in	<b>Presumed Absent.</b> No suitable habitat was present within the Project Site or 500-foot buffer.

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
			coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Hunts in water.	
<b>Birds</b>				
<b><i>Accipiter gentilis</i></b> northern goshawk  (nesting)	Fed: CA: MSHCP:	none SSC COV	Nesting occurs in mature, old-growth forests with more than 60% closed canopy; breeding has been documented within San Bernardino Mountains and San Jacinto Mountains between 6,560 and 8,860 feet. Often found nesting in ponderosa pines and near gaps in the canopy. Prefer nesting sites near a source of water. Foraging occurs in forests, along riparian corridors, and in open habitat such as sagebrush steppes.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Agelaius tricolor</i></b> tricolored blackbird  (nesting colony)	Fed: CA: MSHCP:	none <b>THR</b> /SSC COV	Occurs in freshwater marsh with marshes with dense cattails, bulrushes, sedges, and tule, swamp, and wetland habitats. Largely endemic to California. Highly colonial species, most numerous in Central Valley & vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. Forages in open habitat such as cultivated fields and pastures.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Ammodramus savannarum</i></b> grasshopper sparrow	Fed: CA: MSHCP:	none SSC COV	Grasslands and prairies of moderate height with clusters of scattered shrubs among patches of bare ground.	<b>Presumed Absent.</b> No suitable grassland or prairie habitat is present within the Project Site or 500-foot buffer. The disturbed lot along Lincoln Avenue was unsuitable due to the high level of disturbance including a prevalence of low-growing nonnative species and evidence of ground disturbance (i.e., tilling).
<b><i>Asio otus</i></b> long-eared owl	Fed: CA: MSHCP:	none SSC none	Occurs in cismontane woodland, Great Basin scrub, riparian forest, riparian woodland, upper	<b>Presumed Absent.</b> No suitable habitat is present



Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
			montane coniferous forest, and dense deciduous and evergreen forests habitats near water. Found in riparian bottomlands within tall willows and cottonwoods. Also found in belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.	within the Project Site or 500-foot buffer.
<p><b><i>Athene cunicularia</i></b> burrowing owl</p> <p>(burrow &amp; some wintering sites)</p>	Fed: CA: MSHCP:	none SSC COV	Open, dry annual or perennial grasslands, deserts, plains, and scrublands characterized by low-growing vegetation. Occurs in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley & foothill grassland habitats. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Also found in vacant lots and airports.	<p><b>Presumed Absent.</b> No suitable habitat is present on the Project Site. The disturbed lot, which was surrounded by development, was unsuitable for this species and would not support wintering or breeding activities due to the lack of habitat and insufficient small mammals to provide shelter sites and prey. In addition to the lack of habitat, the small size of the disturbed lot and urban setting likely precludes the species from occurring in the Project Site and buffer.</p>
<p><b><i>Aquila chrysaetos</i></b> golden eagle</p> <p>(nesting &amp; wintering)</p>	Fed: CA: MSHCP:	PRO FP COV	Occurs in open and semi-open habitats such as grasslands, prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. This species typically avoids developed areas and stretches of thick forests. Found primarily in mountainous areas up to 12,000 feet in elevation. Nesting occurs on cliff edges or in large trees such as Eucalyptus or oak in grassland, chaparral, shrubland, forest, and other vegetated areas.	<p><b>Presumed Absent.</b> No suitable nesting or wintering habitat is present within the Project Site. Trees in the Project Site and buffer were not large enough to provide suitable nesting habitat. Additionally, the location of the Project Site in a urban/developed setting likely precludes the species from nesting or foraging in the Project Site and buffer.</p>
<p><b><i>Buteo swainsoni</i></b> Swainson's hawk</p> <p>(nesting)</p>	Fed: CA: MSHCP:	none <b>THR</b> COV	Occurs in Great Basin grassland, riparian forest, riparian woodland, open pine-oak woodland, savannah, agricultural fields, and valley & foothill grassland habitats. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, &	<p><b>Presumed Absent.</b> The Project Site is just outside of the current known breeding range for this species. Although oaks and cottonwoods were mapped in the buffer and Project Site, no suitable foraging habitat, in the form of</p>

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
			agricultural or ranch lands with groves or lines of trees. Nests in solitary bush or tree, or in small groves. Nesting trees can include willow, black locust, oak, aspen, cottonwood, and conifers. Requires adjacent suitable foraging areas such as grasslands or alfalfa/grain fields supporting rodent populations.	grasslands or alfalfa/grain fields, was present within the Project Site or buffer.
<b><i>Charadrius montanus</i></b> mountain plover  (wintering)	Fed: CA: MSHCP:	none SSC COV	Nesting occurs in shortgrass prairie with blue grama, buffalo grass, and western wheat grass being the dominant species; or in grassy semidesert habitats with saltbush, sage, prickly pear, and yucca. Utilize playas and vernal pool, grassland, and some agriculture habitats during the winter within western Riverside County.	<b>Presumed Absent.</b> No suitable wintering habitat is present on the Project Site or 500-foot buffer.
<b><i>Charadrius nivosus nivosus</i></b> western snowy plover  (nesting)	Fed: CA: MSHCP:	<b>THR</b> SSC none	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting. Known protected population in the Tijuana Estuary.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Coccyzus americanus occidentalis</i></b> western yellow-billed cuckoo  (nesting)	Fed: CA: MSHCP:	<b>THR</b> <b>END</b> COV	Occurs in riparian forest habitat. Nests along broad (≥ 5 hectares) patches of multi-layered riparian woodland, often dominated by willows and cottonwoods of lower flood bottoms of larger river systems.	<b>Presumed Absent.</b> No suitable habitat was present within the Project Site or 500-foot buffer.
<b><i>Coturnicops noveboracensis</i></b> yellow rail	Fed: CA: MSHCP:	none SSC none	Occurs in grassy freshwater marshlands and meadows. Not found in deeper areas with tall vegetation, such as cattail marshes.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Cypseloides niger</i></b> black swift  (nesting)	Fed: CA: MSHCP:	none SSC COV	Open sky over mountains, forests, or coastal cliffs. Nests in crevices or ledges of steep cliffs near streams or mountainous waterfalls or along the coast.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Elanus leucurus</i></b> white-tailed kite  (nesting)	Fed: CA: MSHCP:	none FP COV	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in trees, riparian scrub areas, oak woodlands, and other similar habitats.	<b>Presumed Absent.</b> No suitable is present on the Project Site or 500-foot buffer.
<b><i>Empidonax traillii extimus</i></b> southwestern willow flycatcher  (nesting)	Fed: CA: MSHCP:	<b>END</b> <b>END</b> COV	Occurs in riparian woodland, particularly with willow thickets, habitat in Southern California. Nests in densest areas of riparian tree and shrub communities, and trees with low-density canopies associated with rivers, swamps, and other wetlands, including lakes and reservoirs. Nests are often in nonnative tamarisk ( <i>Tamarisk</i> spp.) and native willow ( <i>Salix</i> spp.), typically in vegetation stands of 4-7 m in height.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Haliaeetus leucocephalus</i></b> bald eagle  (nesting & wintering)	Fed: CA: MSHCP:	DL/PRO <b>END</b> /FP COV	General habitat includes Forested areas, and sometimes dry open uplands, along the coast or near large open bodies of water including lakes. Breeding habitat most commonly includes areas close to coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds. Nests in tall trees or on cliffs or pinnacles near open water.	<b>Presumed Absent.</b> No suitable habitat was present within the Project Site or 500-foot buffer.
<b><i>Icteria virens</i></b> yellow-breasted chat  (nesting)	Fed: CA: MSHCP:	none SSC COV	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Nests in low, dense riparian, consisting of willow, blackberry, wild grape along streams or at the edges of ponds or swamps. Forages and nests within 10 ft of ground.	<b>Presumed Absent.</b> No suitable habitat was present within the Project Site or 500-foot buffer.
<b><i>Lanius ludovicianus</i></b> loggerhead shrike  (nesting)	Fed: CA: MSHCP:	none SSC COV	Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
<p><i>Laterallus jamaicensis coturniculus</i> California black rail</p>	<p>Fed: CA: MSHCP:</p>	<p>none <b>THR</b>, FP none</p>	<p>Occurs in wetland, marsh, wet meadows, and swamp habitats with flat shorelines. Also, occurs in coastal and estuarine saltmarshes especially dominated by pickleweed and matted salt grass. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.</p>	<p><b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.</p>
<p><i>Melospiza lincolni</i> Lincoln's sparrow</p>	<p>Fed: CA: MSHCP:</p>	<p>none none COV</p>	<p>Winter visitor to lowland of Southern California and a rare breeder in higher elevations (4,000-9,000 feet) of San Gabriel, San Bernardino, and San Jacinto Mountains. Breeds in lush and brushy montane wet meadows with corn lilies or small willows. Wintering and migratory areas include lowland shrub and scrub habitats (chaparral, coastal sage scrub, grassland, freshwater marsh, peninsular juniper woodland, riparian scrub, oak woodland and forest, and Riversidean alluvial fan sage scrub).</p>	<p><b>Moderate - wintering / Presumed Absent - nesting.</b> Marginal suitable wintering and foraging habitat is present in the disturbed lot and ornamental vegetation in the urban/landscaped areas within the Project Site and buffer. No suitable nesting habitat is present on the Project Site. Multiple recent records were identified within 5 miles of the Project site in eBird and the Western Riverside County Biological Monitoring Program (WRCBMP). The closest WRCBMP record was documented in November 2019 approximately 3 miles northwest of the Project Site. The closest eBird records were multiple occurrences on April 2021 at the Skyline Drive Trailhead, approximately 1 mile southeast of the Project Site and multiple observations from December 2021 and November 2020 at Mountain Gate Park approximately 1 mile south of the Project Site. No CNDDDB records were identified during the database search.</p>
<p><i>Polioptila californica californica</i> coastal California gnatcatcher</p>	<p>Fed: CA: MSHCP:</p>	<p><b>THR</b> SSC COV</p>	<p>Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub including California sagebrush, California buckwheat, salvia, and prickly pear cactus. Moves about actively in shrubs and low trees to</p>	<p><b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.</p>

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
			forage. Generally found at elevations below 3,000 ft.	
<b><i>Progne subis</i></b> purple martin  (nesting)	Fed: CA: MSHCP:	none SSC COV	Open and semi-open country near water, includes urban areas and agricultural lands. Nests in tree cavities and sometimes rock crevices.	<b>Presumed Absent.</b> No suitable nesting habitat is present on the Project Site or 500-foot buffer.
<b><i>Setophaga petechia*</i></b> yellow warbler  (nesting)  <i>*formerly <i>Dendroica petechia brewsteri</i></i>	Fed: CA: MSHCP:	none SSC COV	In southern California, this species breeds in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, they occur in lowland and foothill woodland habitats such as desert oases, riparian woodlands, oak woodlands, mixed deciduous-coniferous woodlands, suburban and urban gardens and parks, groves of exotic trees, farmyard windbreaks, and orchards (Small 1994). Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. Diet consists primarily of insects.	<b>Presumed Absent.</b> No suitable nesting habitat is present on the Project Site or 500-foot buffer.
<b><i>Sphyrapicus thyroideus</i></b> Williamson’s sapsucker	Fed: CA: MSHCP:	none none COV	Nesting occurs in coniferous and mixed conifer-deciduous forests. Common tree species used include Douglas fir, white fir, ponderosa pine, lodgepole pine, and Jeffrey pine, typically found between 4,920 and 10,500 ft amsl, with breeding generally occurring above 5,200 feet. During winter, uses lowland woodlands and forests especially with conifers.	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.
<b><i>Strix occidentalis occidentalis</i></b> California spotted owl	Fed: CA: MSHCP:	none SSC COV	Occurs in mixed montane evergreen and coniferous forests and montane oak woodlands. Uses mature forests with a canopy characterized as dense, multi-layered, diverse, and with a high closure. Often prefers black oaks in the understory. Nesting	<b>Presumed Absent.</b> No suitable nesting or foraging habitat is present on the Project Site or 500-foot buffer.

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
			occurs in well-shaded, steep and narrow canyons often with canyon live oaks.	
<p><b><i>Vireo bellii pusillus</i></b> least Bell's vireo  (nesting)</p>	<p>Fed: CA: MSHCP:</p>	<p><b>END</b> <b>END</b> COV</p>	<p>Occurs in dense riparian forest, riparian scrub, and riparian woodland habitats between 2,000 feet and 4,270 feet. Summer resident of Southern California in low riparian vegetation in the vicinity of water or in dry river bottoms, below 2,000 ft. Breeds in low riparian vegetation with a dense understory and stratified canopy along water or dry intermittent streams often composed of southern willow scrub, cottonwood forest, mule fat scrub, alluvial woodland, coast live oak riparian forest, and arroyo willow riparian forest. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mule fat, and mesquite. Forages in adjacent upland habitats.</p>	<p><b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.</p>
<b>Mammals</b>				
<p><b><i>Antrozous pallidus</i></b> pallid bat</p>	<p>Fed: CA: MSHCP:</p>	<p>none SSC none</p>	<p>Occurs in mountainous areas chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley &amp; foothill grassland, and arid grassland habitats near water, rocky outcrops and open woodlands. Most commonly found in open, dry habitats with rocky areas for roosting. Frequently roosts in rock crevices, caves, mines, buildings, bridges, and in live trees and snags that have holes and cavities or crevices formed by exfoliating bark. Very sensitive to disturbance of roosting sites.</p>	<p><b>Low.</b> Suitable roosting habitat was present in the Project Site and 500-foot buffer in the form of residential buildings, crevices in the concrete box channel underneath Ontario Avenue. Two CNDDDB records were identified during the literature review; however, both (Occ #16 and 47) are historic and documented more than 5 miles from the Project Site. The closest record (Occ #16) was an observation from 1993 of an individual foraging in Blind Canyon, located approximately 7.3 miles southwest of the Project Site.</p>

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b><i>Chaetodipus fallax fallax</i></b> northwestern San Diego pocket mouse	Fed: CA: MSHCP:	none SSC COV	Coastal scrub, chaparral, sagebrush, and grasslands in western San Diego county.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or within the 500-foot buffer.
<b><i>Dipodomys merriami parvus</i></b> San Bernardino kangaroo rat	Fed: CA: MSHCP:	<b>END</b> <b>END</b> , SSC COV	Gentle slopes of alluvial fans, alluvial sage scrub, on flood plains, along washes, and on adjacent upland areas with soils containing sand, loam, and gravel deposited by rivers and streams. Can also be found in sandy soils that are wind deposited. Found in alluvial sage scrub, coastal sage scrub, and chaparral vegetation.	<b>Presumed Absent.</b> No suitable is present on the Project Site or within the 500-foot buffer.
<b><i>Dipodomys stephensi</i></b> Stephens' kangaroo rat	Fed: CA: MSHCP:	<b>THR</b> <b>THR</b> COV	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain. Prefer open habitats with less than 50% protective cover.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.
<b><i>Eumops perotis californicus</i></b> western mastiff bat	Fed: CA: MSHCP:	none SSC none	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	<b>Low.</b> Limited suitable roosting habitat was present within the Project Site and 500-foot buffer in buildings. Multiple CNDDDB occurrences were identified; however, none were recent or within 5 miles. The closest record (Occ# 211) was documented in 1997 approximately 5.3 miles east of the Project Site.
<b><i>Glaucomys sabrinus californicus</i></b> San Bernardino flying squirrel	Fed: CA: MSHCP:	none SSC COV	Occur in broadleaved upland forest and lower montane coniferous forest	<b>Presumed Absent.</b> No suitable is present on the Project Site or within the 500-foot buffer.
<b><i>Lasiurus xanthinus</i></b> western yellow bat	Fed: CA: MSHCP:	none SSC none	Found in valley foothill riparian, riparian woodland in arid regions, desert riparian, desert wash, and palm oasis habitats, oak or pinyon-juniper woodlands, and human developed areas. Roosts in trees, particularly palms with intact dead frond skirts. Has also been found roosting in	<b>Low.</b> Limited suitable foraging and roosting habitat was present within the Project Site and 500-foot buffer in the form of California and Mexican fan palm trees. Three CNDDDB occurrences were identified; however, all were historical. The closest and most record was of two specimen

<b>Scientific Name Common Name</b>	<b>Status</b>		<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
			cottonwood trees. Forages over water and among trees.	collections from 1999 and located approximately 0.3 mile north of the Project Site.
<b><i>Nyctinomops femorosaccus</i></b> pocketed free-tailed bat	Fed: CA: MSHCP:	none SSC none	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings.	<b>Low.</b> Limited suitable roosting habitat was present within buildings in the Project Site and 500-foot buffer. Multiple CNDDDB occurrences were identified; however, all were historic. The closest record (Occ# 18) was documented in 1986 approximately 0.3 mile east of the Project Site.
<b><i>Onychomys torridus ramona</i></b> southern grasshopper mouse	Fed: CA: MSHCP:	none SSC none	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	<b>Presumed Absent.</b> No suitable is present on the Project Site or the 500-foot buffer.
<b><i>Perognathus longimembris brevinasus</i></b> Los Angeles pocket mouse	Fed: CA: MSHCP:	none SSC COV	Habitats with sandy and fine soils, including grasslands, coastal sage scrub, and alluvial sage scrub.	<b>Presumed Absent.</b> No suitable habitat is present on the Project Site or 500-foot buffer.

**Status Codes:**

**Federal Designations:**  
(Federal Endangered Species Act, U.S. Fish and Wildlife Service)  
**END:** Federally-listed, Endangered  
**THR:** Federally-listed, Threatened  
**PT:** Federally Proposed Threatened  
**FC:** Federal Candidate Species  
DL: Federally-delisted  
PRO: Bald and Golden Eagle Protection Act

**State Designations:**  
(California Endangered Species Act, CDFW)  
**END:** State-listed, Endangered  
**THR:** State-listed, Threatened  
**CAN:** Candidate for state listing  
SSC: Species of Special Concern  
FP: Fully Protected Species

**Other Designations**  
COV: Covered species under the Western Riverside MSHCP

Source: California Natural Diversity Data Base (CNDDDB) Riverside West, Prado Dam, Santiago Peak, El Toro, Alberhill, Black Star Canyon, Corona South, Lake Mathews, and Corona North 7.5-minute quads.



## **APPENDIX C**

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### Representative Site Photographs



**Photo 1: Developed residential area north of and along West Ontario Avenue and west of Taylor Avenue, facing southwest.**



**Photo 2: Developed residential area south of and along West Ontario Avenue and between Oak Avenue and South Lincoln Avenue; facing southeast.**





**Photo 3: Developed residential area between South Lincoln Avenue and Glenhaven Drive, and south of West Ontario Avenue, facing west.**



**Photo 4: Ornamental trees at Ontario Park in developed residential area within the 500-foot buffer north of the Project Site; facing east.**





**Photo 5: Disturbed lot, with evidence of tilling, located east of South Lincoln Avenue; facing north.**



**Photo 6: Large ornamental trees in residential development located within the Project Site, near APN 113140025, and located south of West Ontario Avenue; facing south.**



**Photo 7: California fan palm with dead frond skirt located in Project Site, south of West Ontario Avenue, near APNs 113140006 and 113140008, and between South Lincoln Avenue and Glenhaven Drive, facing south.**



**Photo 8: Mexican fan palms with minimal dead frond skirts located within Project Site, south of West Ontario Avenue near APN 113140005 and between South Lincoln Avenue and Glenhaven Drive, facing south.**





**Photo 9: Fan palm with dead frond skirt located adjacent to the Project Site, south of West Ontario Avenue and west of South Buena Vista Avenue, facing north.**



**Photo 10: Mexican fan palms with large dead frond skirts located north of the Project Site in the 500-foot buffer between Conejo Street and South Buena Vista Avenue, facing north.**



**Photo 11: Concrete box culvert in concrete-lined drainage channel located within the Project Site, under West Ontario Avenue and west of Oak Avenue, facing south.**



**Photo 12: Concrete-lined drainage channel that intersects the Project site, under West Ontario Avenue and west of Oak Avenue, facing north.**

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**APPENDIX D**

Plant Species Observed



<b>SCEINTIFIC NAME</b>	<b>COMMON NAME</b>
<b>VASCULAR PLANTS</b>	
<b>GYMNOSPERMS</b>	
<b>Cupressaceae</b>	<b>Cypress Family</b>
<i>Cupressus sempervirens*</i>	Italian cypress
<b>Cycadaceae</b>	<b>Cycad Family</b>
<i>Cycas revoluta*</i>	Sago palm
<b>Pinaceae</b>	<b>Pine Family</b>
<i>Pinus halepensis*</i>	Aleppo pine
<b>Podocarpaceae</b>	<b>Plumpine Family</b>
<i>Podocarpus sp.*</i>	Plum pine
<b>ANGIOSPERMS (EUDICOTS)</b>	
<b>Aceraceae</b>	<b>Maple Family</b>
<i>Acer palmatum*</i>	Japanese maple
<b>Aizoaceae</b>	<b>Ice plant Family</b>
<i>Carpobrotus edulis*</i>	Iceplant
<b>Amaranthaceae</b>	<b>Amaranth Family</b>
<i>Amaranthus albus*</i>	Prostrate pigweed
<b>Anacardiaceae</b>	<b>Cashew Family</b>
<i>Schinus mole*</i>	Peruvian peppertree
<b>Apocynaceae</b>	<b>Dogbane Family</b>
<i>Plumeria rubra*</i>	Plumeria
<b>Araliaceae</b>	<b>Ginseng Family</b>
<i>Hedera canariensis*</i>	Canary island ivy
<i>Hedera helix*</i>	English ivy
<b>Areaceae</b>	<b>Palm Family</b>
<i>Syagrus romanzoffiana*</i>	Queen palm
<b>Asteraceae</b>	<b>Sunflower Family</b>
<i>Lactuca serriola*</i>	Prickly lettuce
<b>Betulaceae</b>	<b>Birch Family</b>
<i>Alnus rhombifolia</i>	White alder
<b>Bignoniaceae</b>	<b>Trumpet vine Family</b>
<i>Chilopsis linearis x Catalpa bignonioides<sup>1*</sup></i>	Chitalpa <sup>1</sup>
<i>Jacaranda mimosifolia*</i>	Blue jacaranda
<i>Tecoma capensis*</i>	Cape honeysuckle
<i>Tecoma stans*</i>	Yellow trumpet bush
<b>Bombaceae</b>	<b>Silk-floss tree Family</b>
<i>Chlorisia speciosa*</i>	Silk-floss tree

<b>SCEINTIFIC NAME</b>	<b>COMMON NAME</b>
<b>Brassicaceae</b>	<b>Mustard Family</b>
<i>Brassica</i> sp.*	Mustard
<i>Raphanus raphanistrum</i> *	Wild radish
<i>Sisymbrium irio</i> *	London rocket
<b>Chenopodiaceae</b>	<b>Goosefoot Family</b>
<i>Atriplex semibaccata</i> *	Australian saltbush
<i>Chenopodium album</i> *	Common lambs quarters
<i>Salsola tragus</i> *	Russian thistle
<b>Convolvulaceae</b>	<b>Morning Glory Family</b>
<i>Convolvulus arvensis</i> *	Field bindweed
<b>Crassulaceae</b>	<b>Stonecrop Family</b>
<i>Crassula ovata</i> *	Jade plant
<b>Euphorbiaceae</b>	<b>Spurge Family</b>
<i>Euphorbia tirucalli</i> *	Firestick
<i>Ricinus communis</i> *	Castor bean
<b>Fagaceae</b>	<b>Oak Family</b>
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus</i> sp.	Oak
<b>Fabaceae</b>	<b>Pea Family</b>
<i>Bauhinia purpurea</i> *	Orchid tree
<b>Geraniaceae</b>	<b>Geranium Family</b>
<i>Erodium cicutarium</i> *	Redstem filaree
<i>Pelargonium</i> sp.*	Geranium
<b>Hamamelidaceae</b>	<b>Witch-hazel Family</b>
<i>Liquidambar styraciflua</i> *	Sweetgum
<b>Lamiaceae</b>	<b>Mint Family</b>
<i>Rosmarinus officinalis</i> *	Rosemary
<i>Salvia leucantha</i> *	Mexican sage
<i>Westringia fruticosa</i> *	Coastal rosemary
<b>Lauraceae</b>	<b>Laurel Family</b>
<i>Cinnamomum camphora</i> *	Camphor tree
<b>Magnoliaceae</b>	<b>Magnolia Family</b>
<i>Magnolia</i> sp.*	Magnolia
<b>Malvaceae</b>	<b>Mallow Family</b>
<i>Hibiscus rosa sinensis</i> *	Chinese hibiscus
<i>Malva parviflora</i> *	Cheeseweed mallow

<b>SCEINTIFIC NAME</b>	<b>COMMON NAME</b>
<b>Moraceae</b>	<b>Mulberry Family</b>
<i>Ficus benjamina</i> *	Weeping fig
<i>Ficus carica</i> *	Common fig
<b>Myrtaceae</b>	<b>Myrtle Family</b>
<i>Agonis flexuosa</i> *	Australian peppermint willow
<i>Callistemon citrinus</i> *	Crimson bottlebrush
<i>Eucalyptus sideroxylon</i> *	Red ironbark eucalyptus
<b>Nyctaginaceae</b>	<b>Four o'clock Family</b>
<i>Agonis flexuosa</i> *	Australian peppermint willow
<b>Oleaceae</b>	<b>Olive Family</b>
<i>Fraxinus</i> sp.	Ash
<i>Olea europaea</i> *	Common olive
<b>Platanaceae</b>	<b>Plane-tree Family</b>
<i>Platanus occidentalis</i> *	American sycamore
<b>Plantaginaceae</b>	<b>Plantain Family</b>
<i>Plantago major</i> *	Broadleaf plantain
<b>Plumbaginaceae</b>	<b>Plumbago Family</b>
<i>Plumbago capensis</i> *	Cape plumbago
<b>Portulacaceae</b>	<b>Purslane Family</b>
<i>Portulacaria afra</i> *	Elephant bush
<b>Rosaceae</b>	<b>Rose Family</b>
<i>Heteromeles arbutifolia</i>	Toyon
<i>Pyrus calleryana</i> *	Bradford pear
<i>Raphiolepis indica</i> *	Indian hawthorn
<b>Rutaceae</b>	<b>Rue Family</b>
<i>Citrus</i> sp.*	Citrus
<i>Citrus x tangerina</i>	Tangerine
<b>Salicaceae</b>	<b>Willow Family</b>
<i>Populus fremontii</i>	Fremont's cottonwood
<b>Sapindaceae</b>	<b>Lychee Family</b>
<i>Cupaniopsis anacardioides</i> *	Carrotwood
<i>Koelreuteria bipinnata</i> *	Chinese flametree
<b>Scrophulariaceae</b>	<b>Figwort Family</b>
<i>Myoporum parvifolium</i> *	Creeping myoporum
<b>Solanaceae</b>	<b>Nightshade Family</b>
<i>Solanum elaeagnifolium</i> *	Silverleaf nightshade
<b>Sterculiaceae</b>	<b>Peon Family</b>
<i>Brachychiton populneus</i> *	Australian bottle tree

<b>SCEINTIFIC NAME</b>	<b>COMMON NAME</b>
<b>Ulmaceae</b>	<b>Elm Family</b>
<i>Ulmus parvifolia</i> *	Chinese elm
<b>ANGIOSPERMS (MONOCOTS)</b>	
<b>Alliaceae</b>	<b>Onion Family</b>
<i>Tulbaghia violacea</i> *	Society garlic
<b>Arecaceae</b>	<b>Palm Family</b>
<i>Syagrus romanzoffiana</i> *	Queen palm
<i>Washingtonia filifera</i>	California fan palm
<i>Washingtonia robusta</i> *	Mexican fan palm
<b>Asparagaceae</b>	<b>Asparagus Family</b>
<i>Agave americana</i> *	Century plant
<i>Agave attenuata</i> *	Foxtail agave
<i>Dracaena marginata</i> *	Dragon tree
<i>Yucca aloifolia</i> *	Aloe yucca
<b>Asphodelaceae</b>	<b>Aloe Family</b>
<i>Dianella sp.</i> *	Flax lily
<b>Iridaceae</b>	<b>Iris Family</b>
<i>Dietes iridioides</i> *	African iris
<b>Poaceae</b>	<b>Grass Family</b>
<i>Avena sp.</i> *	Wild oat
<i>Bromus diandrus</i> *	Ripgut brome
<i>Cynodon dactylon</i> *	Bermuda grass
<i>Festuca sp.</i> *	Lawn grass
<b>Strelitziaceae</b>	<b>Bird of Paradise Family</b>
<i>Strelitzia nicolai</i> *	Giant white bird of paradise

\*Nonnative species

<sup>1</sup>This is a horticultural hybrid between native *Chilopsis linearis*, Desert willow, and other *Bignoniaceae* species *Catalpa bignonioides*, Southern catalpa, and doesn't naturally occur in the wild.

## **APPENDIX E**

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Wildlife Species Observed

<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>
<b>AVES</b>	<b>BIRDS</b>
<b>Aegithalidae</b>	<b>Bushtits</b>
<i>Psaltriparus minimus</i>	Bushtit
<b>Columbidae</b>	<b>Pigeons and Doves</b>
<i>Patagioenas fasciata</i>	Band-tailed pigeon
<i>Streptopelia decaocto</i> *	Eurasian collared-dove
<i>Zenaida macroura</i>	Mourning dove
<b>Corvidae</b>	<b>Jays and Crows</b>
<i>Corvus brachyrhynchos</i>	American crow
<b>Fringillidae</b>	<b>Finches</b>
<i>Haemorhous mexicanus</i>	House finch
<i>Spinus psaltria</i>	Lesser goldfinch
<b>Mimidae</b>	<b>Mockingbirds and Thrashers</b>
<i>Mimus polyglottos</i>	Northern mockingbird
<b>Passerellidae</b>	<b>New World Sparrows</b>
<i>Chondestes grammacus</i>	Lark sparrow
<b>Regulidae</b>	<b>Kinglets</b>
<i>Corthylio calendula</i>	Ruby-crowned kinglet
<b>Sturnidae</b>	<b>Starlings</b>
<i>Sturnus vulgaris</i> *	European starling
<b>Trochilidae</b>	<b>Hummingbirds</b>
<i>Calypte anna</i>	Anna's hummingbird
<b>Troglodytidae</b>	<b>Wrens</b>
<i>Thryomanes bewickii</i>	Bewick's wren
<b>Tyrannidae</b>	<b>Tyrant Flycatchers</b>
<i>Sayornis nigricans</i>	Black phoebe
<i>Sayornis saya</i>	Say's phoebe
<b>MAMMALIA</b>	<b>MAMMALS</b>
<b>Geomyidae</b>	<b>Pocket Gophers</b>
<i>Thomomys</i> sp.	pocket gopher species

\*Nonnative species

## Appendix

# Appendix C. Archaeological Resources and Archi- tectural History Report



***CONFIDENTIAL***

**Archaeological Resources and Architectural  
History Evaluation Inventory Report  
for the  
Ontario Road Widening at Lincoln Avenue Project**

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**Riverside County, California**

**Prepared For:**

City of Corona  
400 South Vicentia Avenue  
Corona, California 92882

**Prepared By:**

 **ECORP Consulting, Inc.**  
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**July 2024**

## **MANAGEMENT SUMMARY**

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The City of Corona retained ECORP Consulting, Inc. in 2023 to conduct an archaeological and architectural history resources inventory for the Ontario Road Widening at Lincoln Avenue Project in Riverside County, California. The City of Corona proposes to construct civil and road improvements and widen the roadway along Ontario Avenue between Lincoln Avenue and Buena Vista Avenue.

The inventory included a records search, literature review, and field survey. The records search results indicated that three previous cultural resources studies have been conducted within the Project Area. As a result of those studies, one historic-period resource, a historic district, was previously recorded within the Project Area: the Corona Historic District, which was built alongside the growing City of Corona between the 1880s and 1910s. No isolates were previously recorded.

As a result of the field survey, ECORP recorded five new cultural resources within the Project Area: OAW-01, a historic residence located on the southeastern corner of South Lincoln Avenue and Ontario Avenue; OV-07, West Ontario Road; OV-08, South Lincoln Avenue, OV-09, Oak Avenue, and OV-10, Buena Vista Avenue. ECORP evaluated resources OAW-01, OV-07, OV-08, OV-09, and OV-10 using the National Register of Historic Places, California Register of Historical Resources, and local eligibility criteria and determined that they are not eligible for inclusion in the NRHP, the CRHR, or the City of Corona's Historic Landmark list. Recommendations for the management of unanticipated discoveries are provided.

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**LIST OF ACRONYMS AND ABBREVIATIONS**

<b>Term</b>	<b>Definition</b>
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
AT&SF	Atchison, Topeka, & Santa Fe
BP	years before present
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CCRR	California Central Railroad Company
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
EIC	Eastern Information Center
FHA	Federal Housing Administration
GLO	General Land Office
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NETR	National Environmental Title Research LLC
NHPA	National Historic Preservation Act
NPS	National Park Service
NRCS	Natural Resources Conservation
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
PRC	Public Resources Code
Project	Ontario Road Widening at Lincoln Avenue Project
ROW	Right-of-Way
RPA	Registered Professional Archaeologist
SHPO	State Historic Preservation Officer
TCR	tribal cultural resource
USGS	U.S. Geological Survey

## **1.0 INTRODUCTION**

The City of Corona retained ECORP Consulting, Inc. in 2023 to conduct an archaeological and architectural history resources inventory for the Ontario Road Widening at Lincoln Avenue Project in the City of Corona, Riverside County, California. A survey of the Proposed Project Area was required to identify potentially eligible cultural resources (i.e., archaeological sites and historic buildings, structures, and objects) that could be affected by the Project.

### **1.1 Project Location and Project Description**

The 20.13-acre Project Area is located in Townships 3 and 4 South, Range 7 West, San Bernardino Base and Meridian, as depicted on the 1997 photorevised version of the 1994 U.S. Geological Survey (USGS) Corona South, California 7.5-minute topographic quadrangle map (Figure 1). The Project Area is oriented east–west along approximately 0.85 mile of Ontario Avenue, which is a major arterial roadway, within a mixed-use neighborhood in the City of Corona. The Project Area also extends southward along Lincoln Avenue, from the intersection of Ontario Avenue and Lincoln Avenue to Conejo Street; this portion of the Project Area is oriented north–south and is approximately 600 feet long (Figure 1). The Project Area shown in Figure 1 is slightly larger than needed to encompass all potential activities and needs for the Project.

The City proposes to widen Ontario Avenue to the Right-of-Way (ROW) across and south into a section of Lincoln Avenue, between Via Pacifica to the east and just before the western end of Taylor Street, which will provide three lanes of vehicular travel and a single bike lane in each direction, east of Oak Avenue. The Project entails the construction of a raised, landscaped meridian island along Ontario Avenue between Oak Avenue and South Vicentia Avenue. It also entails improvements consisting of curbs and gutters, parkways, sidewalks, driveways approaches, streetlights, and utility relocation on the eastern side of Lincoln Avenue between Ontario Avenue and Othello Lane, and the southern side of Ontario Avenue between Lincoln Avenue and Conejo Street.

Additionally, the City proposes to extend the existing 8-inch-diameter PVC reclaimed water main line on Ontario Avenue from the intersection of Ontario Avenue and Lincoln Avenue to the intersection of Ontario Avenue and South Vicentia Avenue to feed the irrigation system for the proposed and existing median islands. It also proposes the construction of sewer lateral trenches for the homes fronting the proposed widening along the south side of Ontario Avenue that will require trenching from the existing 10-inch diameter vitrified clay pipe (VCP) sewer main in Ontario Avenue to the ROW limits. The City would also construct a signalized intersection at the intersection of Lincoln Avenue and Othello Lane and install fiberoptic communication lines from the intersection to the existing Traffic Management System hub cabinet at Lincoln Avenue and Ontario Avenue.

### **1.2 Area of Potential Effects**

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of a project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing

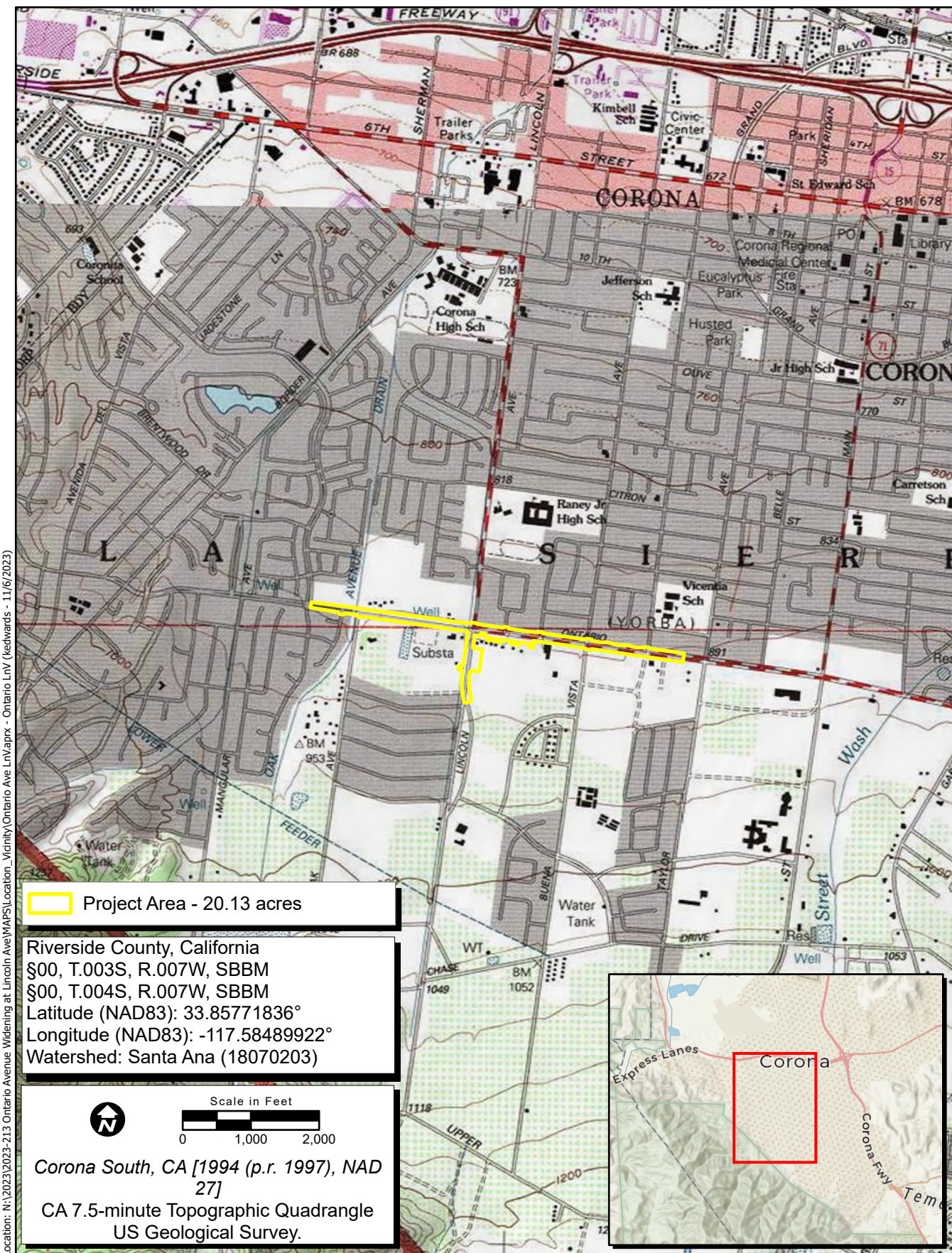
Section 106 (federal law and regulations). For projects subject to the California Environmental Quality Act (CEQA) review, the term Project Area is used rather than APE. The terms Project Area and APE are interchangeable for the purpose of this document.

The horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this Project, equals the Project Area subject to environmental review under the National Environmental Policy Act (NEPA) and CEQA. This includes areas proposed for construction, grading, trenching, stockpiling, staging, paving, and other elements in the official Project description. The horizontal APE is illustrated in Figure 1 and represents the survey coverage area. The horizontal APE is slightly larger than needed to ensure that all Project activities and potential ground disturbance is encompassed.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this Project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project Area, but could extend as deep as 6 feet below the current surface; therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, the above-surface vertical APE is as high as 12 feet above the surface.





Map Date: 11/6/2023  
 Sources: ESRI, USGS

**Figure 1. Project Location and Vicinity**

2023-213 Ontario Avenue Widening at Lincoln Ave

Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Location\_Vicinity\Ontario Ave Ln\Mapx - Ontario Ln\ (kewards - 11/6/2023)

## 1.3 Regulatory Context

The CEQA lead agency for this Project is the City of Corona. The federal lead agency will be determined at a later date, if needed.

A review of the regulatory context is provided below; however, the inclusion of any of these laws and regulations in this report does not make a law or regulation apply when it otherwise would not. Similarly, the omission of any other laws and regulations from this section does not mean that they do not apply. Rather, the purpose of this section is to provide context in explaining why the study was carried out in the manner documented herein.

### 1.3.1 National Environmental Policy Act

NEPA establishes national policy for the protection and enhancement of the environment. Part of the function of the federal government in protecting the environment is to “preserve important historic, cultural, and natural aspects of our national heritage.” Cultural resources need not be determined eligible for the National Register of Historic Places (NRHP) through the National Historic Preservation Act (NHPA) of 1966 (as amended) to receive consideration under NEPA. NEPA is implemented by regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1500-1508).

The definition of *effects* in the NEPA regulations includes adverse and beneficial effects on historic and cultural resources (40 CFR 1508.8). Therefore, the *Environmental Consequences* section of an Environmental Impact Statement [see 40 CFR 1502.16(f)] must analyze potential effects to historic or cultural resources that could result from the proposed action and each alternative. In considering whether an alternative may “significantly affect the quality of the human environment,” a federal agency must consider, among other things:

- Unique characteristics of the geographic area, such as proximity to historic or cultural resources (40 CFR 1508.27(b)(3)), and
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP (40 CFR 1508.27(b)(8)).

Therefore, because historic properties are a subset of *cultural resources*, they are one aspect of the *human environment* defined by NEPA regulations.

### 1.3.2 National Historic Preservation Act

The federal law that covers cultural resources that could be affected by federal undertakings is the NHPA of 1966, as amended. Section 106 of the NHPA requires that federal agencies take into account the effects of a federal undertaking on properties listed in or eligible for the NRHP. The agencies must afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. A federal undertaking is defined in 36 CFR 800.16(y):

A federal undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by



or on behalf of a federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval.

The regulations that stipulate the procedures for complying with Section 106 are in 36 CFR 800. The Section 106 regulations require:

- definition of the APE;
- identification of cultural resources within the APE;
- evaluation of the identified resources in the APE using NRHP eligibility criteria;
- determination of whether the effects of the undertaking or project on eligible resources will be adverse; and
- agreement on and implementation of efforts to resolve adverse effects, if necessary.

The federal agency must seek comment from the State Historic Preservation Officer (SHPO) and, in some cases, the ACHP, for its determinations of eligibility, effects, and proposed mitigation measures. Section 106 procedures for a specific project can be modified by negotiation of a Memorandum of Agreement or Programmatic Agreement between the federal agency, the SHPO, and, in some cases, the project proponent.

Effects to a cultural resource are potentially adverse if the lead federal agency, with the SHPO's concurrence, determines the resource eligible for the NRHP, making it a Historic Property, and if application of the Criteria of Adverse Effects (36 CFR 800.5[a][2] et seq.) results in the conclusion that the effects will be adverse. The NRHP eligibility criteria, contained in 36 CFR 60.4, are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory.

In addition, the resource must be at least 50 years old, barring exceptional circumstances (36 CFR 60.4). Resources that are eligible for, or listed on, the NRHP are *historic properties*.

Regulations implementing Section 106 of the NHPA (36 CFR 800.5) require that the federal agency, in consultation with the SHPO, apply the Criteria of Adverse Effect to historic properties within the APE. According to 36 CFR 800.5(a)(1):

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association.

### **1.3.3 California Environmental Quality Act**

CEQA is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts will be significant, then apply mitigation measures to reduce the impacts.

A Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR, 2) is included in a local register of historical resources, as defined in Public Resources Code (PRC) 5020.1(k), or 3), and has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g) (California Code of Regulations [CCR] Title 14, Section 15064.5(a)).

The eligibility criteria for the CRHR are as follows (CCR Title 14, Section 4852(b)):

- (1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- (2) It is associated with the lives of persons important to local, California, or national history;
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity, which is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, Section 4852(c)). Resources that have been determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would result in a

significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features in the Project Area could also result in significant impacts.

Tribal cultural resources (TCRs) are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are 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 Section 5024.1. Section 1(b)(4) of Assembly Bill (AB) 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of TCRs and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, it only addresses information in this report for which it is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate TCRs. Should California Native American tribes ascribe additional importance to or interpretation of archaeological resources described herein, or provide information about non-archeological TCRs, that information is documented separately in the AB 52 tribal consultation record between the tribe(s) and lead agency and summarized in the TCRs section of the CEQA document, if applicable.

#### **1.3.4 City of Corona Historic Landmark Designation**

An individual City of Corona Historic Landmark must meet the following criteria contained in the Corona Development Code Section 17.63.050 on its own merit:

- (A) Landmarks are those physical elements of Corona's historical development that provide the community with its own unique civic identity and character. A site, improvement or natural feature shall be eligible for listing on the Corona Register as a landmark if the City Council finds that all of the following criteria are satisfied:
  - (1) It has been in existence for a period of at least 50 years, or if less than 50 years old, is of exceptional importance to the community;
  - (2) It has significant historic, cultural or architectural value and its designation as a landmark is reasonable, appropriate and necessary to promote, preserve and further the purposes and intent of this chapter;
  - (3) It exhibits one or more of the following characteristics:
    - (a) It is associated with events that have made a significant contribution to the history of Corona, the region, the state or the nation;
    - (b) It is associated with the lives of persons significant in Corona's past;

- (c) It embodies distinctive characteristics of a style, type, period or method of construction or a valuable example of the use of materials or craftsmanship;
  - (d) It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural or natural history;
  - (e) It is representative of the work of a notable builder, designer or architect;
  - (f) It exemplifies one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period;
  - (g) It is in a unique location or contains physical characteristics representing an established and familiar visual feature of a neighborhood;
  - (h) It is a potential source of archeological or paleontological interest;
  - (i) It is or contains a natural setting or feature that strongly contributes to the well being of the people of the city;
- (4) It has integrity of location, design, setting, materials, workmanship, feeling and association;
- (a) Integrity is the authenticity of an historic resource's physical identity, as evidenced by the survival of characteristics that existed during the historic resource's period of significance, to be recognizable and to convey the reasons for its significance;
  - (b) A site, improvement or natural feature that has diminished historic character or appearance may still have sufficient integrity for the Corona Register if it retains the potential to yield significant scientific or historical information or specific data or retains sufficient character to convey the reasons for its significance. Thus, it is possible that a site, improvement or natural feature may not retain sufficient integrity to meet the criteria for listing on the California Register or National Register, but it may still be eligible for listing on the Corona Register;
  - (c) Integrity shall be judged with reference to the particular criterion or criteria which provide its eligibility. An improvement removed from its original location shall be eligible if it is significant primarily for its architectural value or it is the surviving structure most importantly associated with an historic person or event.
- (B) A reconstructed improvement shall be eligible if the reconstruction is historically accurate, the improvement is presented in a dignified manner as part of a restoration master plan and no other original improvement survives that has the same association.
- (C) A site, improvement or natural feature that is intended to be primarily commemorative shall be eligible if its design, age, tradition or symbolic value creates its own historic significance. Examples include, but are not limited to, public statuary, murals, monuments, sculptures, graves and

birthplaces. These sites or improvements may be identified by the placement of an historic marker (78 Code, § 17.63.050) (Ord. 2522 § 1, 2001).

## 1.4 Report Organization

The following report documents the study and its findings and was prepared in conformance with the California Office of Historic Preservation's (OHP) *Archaeological Resource Management Reports: Recommended Contents and Format*. Appendix A includes a confirmation of the records search with the California Historical Resources Information System (CHRIS) and historical society coordination. Appendix B contains documentation of a search of the Sacred Lands File. Appendix C presents photographs of the Project Area. Appendix D contains confidential cultural resource site locations and site records.

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Because the disclosure of information about the location of cultural resources is prohibited by the Archaeological Resources Protection Act of 1979 (16 U.S. Code 552 470hh) and Section 307103 of the NHPA, it is exempted from disclosure under Exemption 3 of the federal Freedom of Information Act (5 U.S. Code 552) Likewise, the Information Centers of the CHRIS maintained by the OHP prohibit public dissemination of records search information.

## 2.0 SETTING

### 2.1 Environmental Setting

The Project Area is situated at the base of the Santa Ana Mountains in northwestern Riverside County. The Project Area is located on active high-density roadways (Ontario Avenue, Lincoln Avenue, South Vicentia Avenue, and Conejo Street) and consists of paved areas within mixed-use and residential communities. The Project Area abuts paved residential and commercial driveways, sidewalks, landscaped vegetation, and roadway infrastructure.

The Prado Basin is located approximately 5 miles northwest of the Project Area. Main Street Wash (also known as Temescal Wash or Temescal Creek) is located 0.7 mile east of the Project Area. The Santa Ana River is located 3.5 miles north of the Project Area. Elevations within the Project Area range from 878 to 920 feet above mean sea level.

### 2.2 Geology and Soils

The Geologic Map of California identifies the underlying geology of the Project Area as both marine and nonmarine continental sedimentary rocks that date to the Late to Middle Pleistocene (State of California 2015). The underlying geology is described as containing older alluvium, valley, and terrace deposits.

According to the Natural Resources Conservation (NRCS) Web Soil Survey website (NRCS 2023), five soil types are present within the Project Area (Table 1).

<b>Table 1. Soil Types within the Project Area</b>					
<b>Map Unit Symbol</b>	<b>Map Unit Name</b>	<b>Soil Description</b>	<b>Drainage Classification</b>	<b>Portion of Project Area (Percentage)</b>	<b>Portion of Project Area (Acres)</b>
AIC	Arbuckle gravelly loam, 2 to 9 percent slopes, dry, MLRA 19	Alluvium derived from Igneous, Metamorphic and Sedimentary Rock	Well-Drained	8.0	1.6
AmC	Arbuckle gravelly clay loam, 2 to 8 percent slopes	Alluvium derived from Metasedimentary Rock	Well-Drained	22.2	4.5
CnC	Cortina gravelly coarse sandy loam, 2 to 8 percent slopes	Alluvium derived from Metasedimentary Rock	Somewhat Excessively Drained	2.7	0.5
GdC	Garretson gravelly very fine sandy loam, 2 to 8 percent slopes	Alluvium derived from Metasedimentary Rock	Well-Drained	61.1	12.3
PbG	Perkins gravelly loam, 2 to 10 percent slopes, low precipitation, MLRA 19	Alluvium derived from Igneous, Metamorphic and Sedimentary Rock	Well-Drained	6.0	1.2
<b>Total:</b>				<b>100%</b>	<b>20.1</b>

The Project Area has a moderate potential for buried archaeological deposits because it is located approximately 0.7 mile east of the Main Street Wash, which is a tributary of the Santa Ana River, and the Project Area's underlying soil contains alluvium from the Santa Ana River. However, the likelihood of buried archaeological sites within the Project Area reduces to a low potential due to the Pleistocene age of the underlying soil, which predates human occupation in the vicinity. Furthermore, the distance from Main Street Wash, and the elevation of the Project Area relative to the Wash and the Santa Ana River, would not have allowed cultural material on the surface to be covered with alluvial soils. Therefore, the Project Area has a low potential for buried archaeological deposits.

### **2.3 Vegetation and Wildlife**

Prior to the arrival of European Americans and the start of ranching and farming activities, the Project Area would have been a chaparral consisting of a dense community of needle-leaved and broad-leaved evergreen sclerophyll scrubs (Küchler 1977). The dominant plants would have been chamise, manzanita, and California lilac.

Prior to the arrival of European-Americans, fauna within and near the Project Area would have included black-tailed deer, Roosevelt elk, antelope, grizzly bears, mountain lions, raccoons, skunks, cottontail and brush rabbits, jackrabbits, tree and ground squirrels, and rodents such as woodrats, mice, and moles. Avifauna would have included various species of geese and ducks, mourning dove, robins, California quail, hawks, owls, and ravens.



## **3.0 CULTURAL CONTEXT**

### **3.1 Regional Pre-Contact History**

It is generally believed that human occupation of California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted probably consisted mostly of large species still alive today. Bones of extinct species have been found but cannot definitively be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and floral foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978). Around 8,000 BP, there was a shift in focus from hunting toward a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 5,000 BP, is sometimes referred to as the Millingstone Horizon (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to 8,000 BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978). Archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments in sites dating to after about 5,000 BP. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Flaked-stone tools became more refined and specialized, and bone tools were more common. New peoples from the Great Basin began entering Southern California during this period. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. During this period, known as the Late Horizon, population densities were higher than before, and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups that the first Europeans encountered during the 18th century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The presence of small projectile points indicates the introduction of the bow and arrow into the region sometime around 2,000 BP (Moratto 1984; Wallace 1978).

### **3.2 Local Pre-Contact History**

#### **3.2.1 Paleo-Indian Period/Terminal Pleistocene (12,000 to 10,000 Before Present)**

The first inhabitants of southern California were big game hunters and gatherers exploiting extinct species of Pleistocene megafauna (e.g., mammoth and other Rancholabrean fauna). Local "fluted point" assemblages composed of large spear points or knives are stylistically and technologically similar to the

Clovis Paleo-Indian cultural tradition dated to this period elsewhere in North America (Moratto 1984). Archaeological evidence for this period in southern California is limited to a few small temporary camps with fluted points found around late Pleistocene lake margins in the Mojave Desert and around Tulare Lake in the southern San Joaquin Valley. Single points are reported from Ocotillo Wells and Cuyamaca Pass in eastern San Diego County and from the Yuha Desert in Imperial County (Rondeau et al. 2007).

### **3.2.2 Early Archaic Period/Early Holocene (10,000 to 8,500 BP)**

Approximately 10,000 years ago, at the beginning of the Holocene, warming temperatures and the extinction of the megafauna resulted in changing subsistence strategies with an emphasis hunting smaller game and increasing reliance on plant gathering. Previously, Early Holocene sites were represented by only a few sites and isolates from the Lake Mojave and San Dieguito Complexes found along former lakebeds and grasslands of the Mojave Desert and in inland San Diego County. More recently, southern California Early Holocene sites have been found along the Santa Barbara Channel (Erlandson 1994), in western Riverside County (Goldberg 2001; Grenda 1997), and along the San Diego County coast (Gallegos 1991, Koerper et al. 1991, Warren 1967).

The San Dieguito Complex was defined based on material found at the Harris site (CA-SDI-149) on the San Dieguito River near Lake Hodges in San Diego County. San Dieguito artifacts include large leaf-shaped points; leaf-shaped knives; large ovoid, domed, and rectangular end and side scrapers; engraving tools; and crescentic (Koerper et al. 1991). The San Dieguito Complex at the Harris site dates to 9,000 to 7,500 BP (Gallegos 1991). However, sites from this time period in coastal San Diego County have yielded artifacts and subsistence remains characteristic of the succeeding Encinitas Tradition, including manos, metates, core-cobble tools, and marine shell (Gallegos 1991; Koerper et al. 1991).

### **3.2.3 Encinitas Tradition or Milling Stone Period/Middle Holocene (8,500 to 1,250 BP)**

The Encinitas Tradition (Warren 1968) and the Milling Stone Period (Wallace 1955) refer to a long period of time during which small mobile bands of people who spoke an early Hokan language (possibly proto-Yuman) foraged for a wide variety of resources including hard seeds, berries, and roots/tubers (yucca in inland areas), rabbits and other small animals, and shellfish and fish in coastal areas. Sites from the Encinitas Tradition consist of residential bases and resource acquisition locations with no evidence for overnight stays. Residential bases have hearths and fire-affected rock indicating overnight stays and food preparation. Residential bases along the coast have large amounts of shell and are often termed shell middens.

The Encinitas Tradition as originally defined (Warren 1968) applied to all of the non-desert areas of southern California. Recently, four patterns within the Encinitas Tradition have been proposed which apply to different regions of southern California (Sutton and Gardner 2010). The Topanga Pattern includes archaeological material from the Los Angeles Basin and Orange County. The Greven Knoll Pattern pertains to southwestern San Bernardino County and western Riverside County (Sutton and Gardner 2010). Each of the patterns is divided into temporal phases. The Topanga Pattern included the Los Angeles Basin and Orange County. The Topanga I phase extends from 8,500 to 5,000 BP and Topanga II runs from 5,000 BP

to 3,500 BP. The Topanga Pattern ended about 3,500 BP with the arrival of Takic speakers, except in the Santa Monica Mountains where the Topanga III phase lasted until about 2,000 BP.

The Encinitas Tradition in inland areas east of the Topanga Pattern (southwestern San Bernardino County and western Riverside County) is the Greven Knoll Pattern (Sutton and Gardner 2010). Greven Knoll I (9,400 to 4,000 BP) has abundant manos and metates. Projectile points are few and are mostly Pinto points. Greven Knoll II (4,000 to 3,000 BP) has abundant manos and metates and core tools. Projectile points are mostly Elko points. The Elsinore site on the east shore of Lake Elsinore was occupied during Greven Knoll I and Greven Knoll II. During Greven Knoll I faunal processing (butchering) took place at the lakeshore and floral processing (seed grinding), cooking, and eating took place farther from the shore. The primary foods were rabbit meat and seeds from grasses, sage, and ragweed. A few deer, waterfowl, and reptiles were consumed. The recovered archaeological material suggests that a highly mobile population visited the site at a specific time each year. It is possible that their seasonal round included the ocean coast at other times of the year. These people had an unspecialized technology as exemplified by the numerous crescents, a multi-purpose tool. A few projectile points suggest that most of the small game was trapped using nets and snares (Grenda 1997:279). During Greven Knoll II, which included a warmer drier climatic episode known as the Altithermal, it is thought that populations in interior southern California concentrated at oases and that Lake Elsinore was one of these oases. The Elsinore site (CA-RIV-2798) is one of five known Middle Holocene residential sites around Lake Elsinore. Tools were mostly manos, metates, and hammerstones. Scraper planes were absent. Flaked-stone tools consisted mostly of utilized flakes used as scrapers. The Elsinore site during the Middle Holocene was a "recurrent extended encampment," which could have been occupied during much of the year.

The Encinitas Tradition lasted longer in inland areas because Takic speakers did not move east into these areas until circa 1,000 BP. Greven Knoll III (3,000 to 1,000 BP) is present at the Liberty Grove site in Cucamonga (Salls 1983) and at sites in Cajon Pass that were defined as part of the Sayles Complex (Kowta 1969). Greven Knoll III sites have a large proportion of manos and metates and core tools as well as scraper planes. Kowta (1969) suggested the scraper planes may have been used to process yucca and agave. The faunal assemblage consists of large quantities of lagomorphs (rabbits and hares) and lesser quantities of deer, rodents, birds, carnivores, and reptiles.

### **3.2.4 Palomar Tradition (1,250 to 150 BP)**

The Native people of southern California (north of a line from Agua Hedionda to Lake Henshaw in San Diego County) spoke Takic languages, which form a branch or subfamily of the Uto-Aztecan language family. The Takic languages are divided into the Gabrielino-Fernandeño language, the Serrano-Kitanemuk group (the Serrano [includes the Vanyume dialect] and Kitanemuk languages), the Tataviam language, and the Cupan group (the Luiseño-Juaneño language, the Cahuilla Language, and the Cupeño language) (Golla 2011). According to Sutton (2009), Takic speakers occupied the southern San Joaquin Valley before 3,500 BP. Perhaps as a result of the arrival of Yokutsan speakers (a language in the Penutian language family) from the north, Takic speakers moved southeast. The ancestors of the Kitanemuk moved into the Tehachapi Mountains and the ancestors of the Tataviam moved into the upper Santa Clara River drainage. The ancestors of the Gabrielino (Tongva) moved into the Los Angeles Basin about 3,500 BP, replacing the

native proto-Yuman (Hokan) speakers. Speakers of proto-Gabrielino reached the southern Channel Islands by 3,200 BP (Sutton 2009) and moved as far south as Aliso Creek in Orange County by 3,000 BP.

Takic people moved south into southern Orange County after 1,250 BP and became the ancestors of the Juaneño. Takic people moved inland from southern Orange County about 1,000 BP, becoming the ancestors of the Luiseño, Cupeño, and Cahuilla. At the same time, Takic people from the Kitanemuk area moved east along the northern slopes of the San Gabriel Mountains and spread into the San Bernardino Mountains and along the Mojave River, becoming the ancestors of the Serrano and the Vanyume.

The material culture of the inland areas where Takic languages were spoken at the time of Spanish contact is part of the Palomar Tradition (Sutton 2011). San Luis Rey I Phase (1,000 BP to 500 BP) and San Luis Rey II Phase (500 BP to 150 BP) pertain to the area occupied by the Luiseño at the time of Spanish contact. The Peninsular I (1,000 BP to 750 BP), II (750 BP to 300 BP), and III (300 BP to 150 BP) phases are used in the areas occupied by the Cahuilla and Serrano (Sutton 2011).

San Luis Rey I is characterized by Cottonwood Triangular arrow points, use of bedrock mortars, stone pendants, shell beads, quartz crystals, and bone tools. San Luis Rey II sees the addition of ceramics, including ceramic cremation urns, red pictographs on boulders in village sites, and steatite arrow straighteners. San Luis Rey II represents the archaeological manifestation of the antecedents of the historically known Luiseño (Goldberg 2001: I-43). During San Luis Rey I there were a series of small permanent residential bases at water sources, each occupied by a kin group (probably a lineage). During San Luis Rey II people from several related residential bases moved into a large village located at the most reliable water source (Waugh 1986). Each village had a territory that included acorn harvesting camps at higher elevations. Villages have numerous bedrock mortars, large dense midden areas with a full range of flaked- and ground stone tools, rock art, and a cemetery.

### **3.3 Ethnographic History**

#### **3.3.1 Gabrieliño**

Ethnographic accounts of Native Americans indicate that the Gabrieliño (also known as Gabrieleno, or Tongva) once occupied the region that encompasses the Project Area. At the time of contact with Europeans, the Gabrieliño were the main occupants of the southern Channel Islands, the Los Angeles Basin, much of Orange County, and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the group's association with Mission San Gabriel Arcángel, established in 1771. The Gabrieliño are believed to have been one of the most populous and wealthy Native American tribes in southern California prior to European contact, (Bean and Smith 1978; McCawley 1996; Moratto 1984) and spoke a Takic language. The Takic group of languages is a subgroup of the Uto-Aztecan language family.

The Gabrieliño occupied villages located along rivers and at the mouths of canyons. Populations ranged from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Gabrieliño society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources (Bean and Smith 1978; McCawley 1996; Miller 1991).

Vegetal staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes. The Gabrieliño also fished and collected marine shellfish (Bean and Smith 1978; McCawley 1996; Miller 1991).

By the late 18th century, the Gabrieliño population had significantly dwindled due to introduced European diseases and dietary deficiencies and communities disintegrated as families were taken to the missions (Bean and Smith 1978; McCawley 1996; Miller 1991). Recently, Gabrielino culture has undergone a resurgence and current descendants are actively preserving their heritage.

### **3.3.2 Luiseño**

The Luiseño are a Takic-speaking people who occupied what is now western Riverside County and northern San Diego County (the San Luis Rey River drainage) in pre-contact and historic times. The term Luiseño was given by the Spanish to the native groups who were living in this area and who were forcibly removed to Mission San Luis Rey. The Luiseño believe the world was created in the area now known as Temecula and that they have been here since the beginning of time.

The Luiseño lived in sedentary and autonomous village groups, each with specific subsistence territories encompassing hunting, collecting, and fishing areas. Villages were typically located in valley bottoms, along streams, or along coastal strands near mountain ranges where water was available and village defense was possible. Inland populations had access to fishing and gathering sites on the coast, which they used during the winter months (Bean and Shipek 1978).

Luiseño subsistence was centered around the gathering of acorns, seeds, greens, bulbs, roots, berries, and other vegetal foods. This was supplemented with hunting mammals such as deer, antelope, rabbit, woodrat, ground squirrels, and mice, as well as quail, doves, ducks, and other birds. Bands along the coast also exploited marine resources, such as sea mammals, fish, crustaceans, and mollusks. Inland, trout and other fish were taken from mountain streams (Bean and Shipek 1978).

Hunting was carried out both individually and by organized groups. Tool technology for food acquisition, storage, and preparation reflects the size and quantity of items procured. Small games were hunted with the use of curved throwing sticks, nets, slings, or traps. Bows and arrows were used for hunting larger game. Dugout canoes, basketry fish traps, and shell hooks were used for near-shore ocean fishing. Coiled and twined baskets were made for food gathering, preparation, storing, and serving. Other items used for food processing included large shallow trays for winnowing chaff from grain, ceramic and basketry storage containers, manos and metates for grinding seeds, and ceramic jars for cooking (Bean and Shipek 1978).

Villages had hereditary chiefs who controlled religious, economic, and territorial activities (Bean and Shipek 1978, Boscana 1933). An advisory council of ritual specialists and shamans was consulted for environmental and other knowledge. Large villages located along the coast or in inland valleys may have had more complex social and political structures than settlements controlling smaller territories (Bean and Shipek 1978; Strong 1929).

Most Luiseño villages contained a ceremonial structure, enclosed by circular fencing and located near the center of the village. Houses were semisubterranean and thatched with locally available brush, bark, or

reeds. Earth-covered semisubterranean sweathouses were also common and were used for purification and curing rituals (Bean and Shipek 1978).

The Luiseño first encountered Europeans in 1769 when the expedition led by Gaspar de Portolá arrived in their territory. That same year, the San Diego Mission was established just to the south, followed by the San Juan Capistrano Mission in 1776 and the San Luis Rey Mission in 1798. Poor living conditions at the missions and European-introduced diseases led to a rapid decline of the Luiseño population. Following the Mission Period (1769–1834), Luiseño Indians scattered throughout southern California. Some became serfs on the Mexican ranchos, others moved to newly founded pueblos established for them, some sought refuge among inland groups, and a few managed to acquire land grants. Later, many moved to or were forced onto reservations. Though many of their cultural traditions had been suppressed during the Mission Period, the Luiseño were successful at retaining their language and certain rituals and ceremonies. Starting in the 1970s, there was a revival of interest in the Luiseño language and classes were organized. Since then, traditional games, songs, and dances have been performed, traditional foods have been gathered and prepared, and traditional medicines and curing procedures have been practiced (Bean and Shipek 1978).

### **3.4 Regional History**

The first European to visit Alta California (the area north of Baja California) was Spanish maritime explorer Juan Rodriguez Cabrillo, in 1542. Sent north by the Viceroy of New Spain (Mexico) to look for the Northwest Passage, Cabrillo visited San Diego Bay, Catalina Island, San Pedro Bay, and the northern Channel Islands. In 1579, the English adventurer Francis Drake visited the Miwok Native American group at Drake's Bay or Bodega Bay. Sebastian Vizcaíno explored the coast as far north as Monterey in 1602. He reported that Monterey was an excellent location for a port (Castillo 1978). Vizcaíno also named San Diego Bay to commemorate Saint Didacus. The name began to appear on European maps of the New World by 1624 (Gudde 1998). Colonization of Alta California began with a land expedition led by Spanish army captain Gaspar de Portolá. In 1769, Portolá and Father Junipero Serra, a Franciscan missionary, explored the California coast from San Diego to the Monterrey Bay area. As a result of this expedition, Spanish missions to convert the native population to Catholicism, presidios (forts), and pueblos (towns) were established. The Franciscan missionary friars built 21 missions in Alta California, beginning with Mission San Diego in 1769 and ending with the missions in San Rafael and Sonoma, founded in 1823. Mission San Diego was established to convert the Native Americans that lived in the area, known as the Kumeyaay or Diegueño. Mission San Gabriel Archangel began in 1771, east of what is now Los Angeles, to convert the Tongva or Gabrielino. Mission San Fernando, also in Tongva/Gabrielino territory, was built in 1797. Mission San Juan Capistrano was established in 1776 on San Juan Creek (in what is now southern Orange County) to convert the Agjachemem or Juaneño. Mission San Luis Rey began in 1798 on the San Luis Rey River (in what is now northern San Diego County) to convert the Luiseño (Castillo 1978). Some missions later established outposts in inland areas. An asistencia (mission outpost) of Mission San Luis Rey, known as San Antonio de Pala, was built in Luiseño territory along the upper San Luis Rey River near Mount Palomar in 1810 (Pourade 1961). A chapel administered by Mission San Gabriel Arcángel was established in the San Bernardino area in 1819 (Bean and Smith 1978). The present asistencia within the western outskirts of present-day Redlands was built circa 1830 (Haenszel and Reynolds 1975). The

missions sustained themselves through cattle ranching and traded hides and tallow for supplies brought by ship. Large cattle ranches were established by Mission San Luis Rey at Temecula and San Jacinto (Gunther 1984). The Spanish also constructed presidios, or forts, at San Diego and Santa Barbara, and a pueblo, or town, was established at Los Angeles. Phase I Cultural Resources Inventory for the Ontario Avenue Widening Project in the City of Corona ECORP Consulting, Inc. Ontario Avenue Widening 11 April 2020 2019-096 The Spanish period, which had begun in 1769 with the Portolá expedition, ended in 1821 with Mexican independence, and what is now California became the Mexican province of Alta California. The Mexican government secularized the missions in the 1830s and former mission lands were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants, or ranchos (Robinson 1948). Rancho owners sometimes lived in one of the towns, such as San Diego (near the presidio), San Juan Capistrano (around the mission), or Los Angeles, but often resided in an adobe house on their own land.

### **3.5 City of Corona History**

As early as 1825, brothers Bernardo and Tomás Yorba used the land encompassing the Project Area for cattle grazing, calling it La Sierra, although they held no legal title. In 1846, shortly before California became part of the United States, Mexican Governor Pio Pico signed two grants for adjacent lands along the Santa Ana River, dividing La Sierra in two: Rancho La Sierra (Yorba) and Rancho La Sierra (Sepulveda). These grants, to Bernardo Yorba and Tomás Yorba's widow, Doña Vicenta Sepulveda, respectively, comprised a total of eight leagues (approximately 35,560 acres). Rancho La Sierra (Yorba) consisted of the southwestern half of the former La Sierra, and Rancho La Sierra (Sepulveda) comprised the northeastern half. The present-day city of Corona is situated on former Rancho La Sierra (Yorba) land (Gunther 1984). The Mexican Period, which began with independence from Spain in 1821, continued until the Mexican-American War of 1846-1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the Territory of California. Rapid population increase occasioned by the Gold Rush of 1849 led to statehood in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult for their owners to pay the new American taxes on their thousands of acres. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. Foreclosures and land sales eventually resulted in the transfer of most of the land grants into the hands of Anglo-Americans (Cleland 1941).

Rancho La Sierra (Yorba) was eventually surveyed and was patented at 17,787 acres on February 4, 1875. Eleven years later, in February 1886, an entrepreneur from Iowa named Robert B. Taylor formed the South Riverside Land & Water Company and purchased 11,500 acres of Rancho La Sierra (Yorba) for \$109,800. Taylor and his board of directors, composed of Des Moines and Sioux City, Iowa, investors Adolph Rimpau, A. S. Garretson, George L. Joy, and former Iowa governor Samuel Merrill, bought water rights in nearby Temescal Valley to irrigate their land, and hired Anaheim engineer H. Clay Kellogg to survey a townsite they called South Riverside. From a variety of potential plans, the board and Kellogg decided on a traditional grid of streets within a wide, circular thoroughfare, nearly one mile in diameter, called Grand

Boulevard. Many lots in South Riverside were sold and the South Riverside post office was established in 1887 to serve the rapidly growing population. Grand Boulevard was soon lined with two-story mansions, schools, churches, and businesses. Most of the new residents owned or worked in the orange and lemon groves that were rapidly spreading across the acres of land surrounding the community (Freel 2011; Gunther 1984).

In 1887, just as South Riverside began to grow, the California Central Railroad Company (CCRR), a subsidiary of the Atchison, Topeka, & Santa Fe (AT&SF) Railroad, completed a line to Los Angeles from San Bernardino via Riverside, South Riverside, and Orange. In 1889, the CCRR and another AT&SF subsidiary, the California Southern Railroad Company, were merged into the Southern California Railway Company, which was purchased by the AT&SF in 1906 (Bryant 1974; Gunther 1984; Robertson 1998). The railroad tracks, which passed just north of the great circle formed by Grand Avenue, became the site of the city's industrial buildings and citrus packing houses (Freel 2011). South Riverside was nicknamed "Queen Colony" and "Circle City" by many of its early citizens, who resented that its formal name implied that it was merely a suburb of Riverside, the larger city to the north. Around 1889, residents began to agitate for a change of name. A vote was held in 1894, with fanciful names like "Lemonton," "Grevilla," "Hesperides," and "Circleville" up for choosing. The original name was retained until 1896, when on July 13, the settlement was incorporated as the City of Corona. The new name was the suggestion of Baron Harden Hickey, an adventurer, eccentric character, owner of the nearby Cerreto Ranch, and friend of the city's founder, Robert Taylor. Immediately, the name of the local railroad station was changed from South Riverside to Corona, and the *South Riverside Bee* newspaper was renamed the *Corona Courier*. The post office was changed to Corona in 1897 (Gunther 1984). By the turn of the twentieth century, the population of Corona was more than 1,400. Five thousand acres of citrus groves covered the land surrounding the city by 1912, and the packing houses along the AT&SF tracks at the north end of town shipped more fruit than those of any other southern California city. By the 1950s, Corona was known as the "lemon capital of the world," exporting lemon juice, citric acid, lemon oil, and pectin, in addition to whole lemons, all over the globe. The orange and lemon industries were the leading employers in the Corona area through the 1960s (Freel 2011).

After World War II, residential development began to spread from the City's center into the citrus groves, as the value of real estate exceeded the potential profits from fruit crops. By the 1970s, housing tracts had displaced so many Corona lemon and orange groves that the demand for fruit could not be met by local harvests. Sunkist closed its Corona packing houses in 1982, and other producers soon followed. Agriculture has continued to diminish in the last three decades (Freel 2011). By 1954, the population of Corona was more than 11,000. State Route 91, the Riverside Freeway, cut through the north edge of the Grand Boulevard circle in 1962, initiating a period of growth and downtown renewal that lasted through the 1970s. I-15 was completed through the east side of the City in 1989. As suburban developments such as Corona Hills, Sierra del Oro, and South Corona have grown up around the original central town in recent years, the City has become a bedroom community (Freel 2011). The population of Corona is now over 160,000 (City of Corona 2018).



## **3.6 Roads in California**

During the second half of the 19th century, a period of rapid railroad development in the United States, public roads in California and other western states became neglected and degraded. By 1900, “the nation with the greatest railway system in the world had the worst roads” (Johnson 1990:139). Interest in road building revived around the turn of the century when farmers and ranchers, many disillusioned with high railroad rates, began asking county officials for better surface roads. They were joined by millions of bicyclists who called for smoother roads in town and in the countryside. Joining forces, farmers, ranchers, and bicyclists organized local, state, and national “good roads” campaigns. In response, the federal government established the Office of Road Inquiry in the Department of Agriculture to study new road building techniques (Jackson 1998).

Dusty during summer months and muddy during the winter and spring, unpaved roads played havoc with wagons, carriages, and bicycles. Plank roads made from lumber first appeared in California during the 1850s. Gravel roads and macadam, a form of compacted gravel coated with oil, came into use during the late 19th century. Finally, after 1900, concrete roads topped by a mixture of bitumen, aggregate, and sand called asphalt became the standard modern road surface. Durable, smooth, and impervious to water, asphalt withstood winter weather, reduced vehicular wear and tear, and better facilitated drainage (Kostof 1992).

After 1910, as automobile usage surged, and as suburbanization occurred on the edges of town and cities in California and elsewhere, city planners began articulating a hierarchy of streets to distinguish residential roads, collector roads, arterial roads, and highways, each handling progressively higher volumes of traffic. Through the remainder of the twentieth century, as commercial and residential growth supplanted farms and ranches on the edges of California towns and cities, many rural county roads became adapted to suit the new suburban landscape. In many places, older two-lane rural roads became two- and four-lane suburban arterial streets lined with shopping centers and parking lots; others became two-lane collector streets lined with new residential subdivisions.

In 1936, the Federal Housing Administration (FHA), a New Deal program designed to boost mortgage lending in the United States, developed design standards for new suburban residential streets. FHA standards called for quieter streets with T-intersections, cul-de-sacs, and curvilinear patterns in an effort to slow traffic. With few exceptions, homebuilders in California and other western states after 1940 adhered to FHA standards; homebuilders also eliminated alleys behind residential properties in favor of driveways leading to street-facing garages (Kostof 1992). After 1960, homebuilders also began creating large master planned suburban developments featuring winding arterial parkways deliberately separated from residential zones to permit higher speeds.

### **3.6.1 Roads in Corona**

Roads first developed in Corona’s historic core on Grand Boulevard, a circle street that is 3 miles in circumference, 1 mile in diameter, and 100-feet wide. Two principal thoroughfares, Main Street (north–south) and Sixth Street (east–west), intersect at the center of the circle. Inside the circle, a grid of pedestrian-oriented, rectangular blocks and streets create neighborhoods and small commercial nodes.

Most residential neighborhoods in the historic core contain single-family and low-density multifamily homes, most of which are accessed by rear alleys (City of Corona 2021).

Residential streets outside the historic core serve typical suburban neighborhoods built after World War II that are characterized by cul-de-sacs and wide curvilinear streets. Community-serving commercial centers exist at major street intersections of the primary entries and in most neighborhoods (City of Corona 2021).

Roads within the Project Area include West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue. While Riverside County crews constructed all four roads circa 1920s, research found little indication that they shared an association with the Good Roads Movement that lasted until the late 1920s. A 1948 aerial image depicts all four roads in their current confirmation except for S. Lincoln Avenue which was realigned roughly 600 feet south of W. Ontario Avenue in the 1990s. Riverside County paved all four roads during 1970s according to aerial images. From at least the 1940s to the 1960s, these roads served the surrounding agriculture activities but by 1970s and 1980s suburban single-family neighborhoods developed adjacent to these roads (City of Corona 2021; National Environmental Title Research LLC [NETR] 2023).

### **3.7 2201 South Lincoln Avenue Property History**

The dwelling at 2201 South Lincoln Avenue first appears in a 1948 aerial image surrounded mainly by agricultural land with a scattering of single-family homes. Aerials from the 1950s and 1960s indicate increased single-family development surrounding the property but with agricultural land to the north and south. By the 1967 aerial image, the house contains an attached garage addition to the south elevation. From 1967 to circa 1993, the building footprint remained unchanged but with increasing density north of W. Ontario Avenue. By 1994, the house featured an 8-by-30-foot addition on the west elevation of the dwelling. From 1994 through 2002, several tract developments were built both north and south of W. Ontario Avenue. The 1990s era phase of development effectively removed almost all remaining agricultural properties surrounding the dwelling at 2201 South Lincoln Avenue (NETR 2023).

### **3.8 Minimal Traditional (c. 1935–1950)**

The property at 2001 S. Lincoln is an example of the Minimal Traditional style, which was a nationally prevalent style that emerged during the Great Depression. Minimal Traditional homes were designed to be simplistic, economical, and able to be produced at a mass scale. The prevalence of the style was the result of federal policies. Franklin D. Roosevelt enacted the National Housing Act in 1934, creating the Federal Housing Administration (FHA). The Minimal Traditional-style house was explicitly preferred in FHA guidelines for homeowners to secure FHA-insured home loans. The style continued to be popular through World War II and the postwar housing boom due to the increased use of factory-produced materials, the ability to be quickly mass-produced and deployed, and the general rejection of excessive, material-intensive Craftsman, Victorian, or Period Revival styles. The popularity of the Minimal Traditional style faded by the mid-1950s because the effects of the Great Depression and war-time fiscal conservatism were forgotten (Architectural Resources Group 2019; California Department of Transportation (Caltrans) 2011; McAlester 2015).

The character-defining features of the Minimal Traditional style include the following:

- Small scale
- One-story or one-and-a-half stories in height
- Low- or intermediate-pitched gable roof with little to no eave overhang
- Typically features double-hung windows with either multi-pane or simulated multi-pane
- Window placement occasionally includes two windows set near the building corner
- Exterior cladding materials may include vertical and horizontal wood boards, shingles, brick veneer, and board-and-batten siding
- Minimal, limited architectural decoration, usually American Colonial Revival in character
- Roof dormers are rare, except on Cape Cod-style Minimal Traditional houses
- May have an attached or detached garage

## 4.0 METHODS

### 4.1 Personnel Qualifications

Registered Professional Archaeologist (RPA) Christa Westphal, who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology, was responsible for this cultural resource investigation. Casey LeJune, RPA conducted the fieldwork. Associate Archaeologist Erica Ramirez-Schroeder and Associate Archaeologist Evelyn Hildebrand, RPA prepared the technical report. Architectural Historian Andrew Bursan evaluated the resources. Lisa Westwood, RPA provided technical report review and quality assurance.

Christa Westphal, RPA is a Senior Archaeologist with more than 10 years of experience in California cultural resources management. She has experience in many aspects of archaeological fieldwork, laboratory, and reporting. These include archaeological survey, excavation, monitoring, artifact analysis, artifact collections management, graphics production, Geographic Information System analysis, CHRIS records searches, Native American Heritage Commission (NAHC) requests, preparation of Department of Parks and Recreation (DPR) forms and author and contributor of technical reports. She holds a B.A. and M.A. in Anthropology.

Casey LeJeune, RPA is a Staff Archaeologist who has worked in cultural resource management since 2020, with experience in the Southeast and southern California. She holds an M.A. in anthropology with a focus in forensic anthropology and bioarchaeology. She meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology. Ms. LeJeune has served as a field crew supervisor and participated in fieldwork on forensic and historic burials, survey, large-scale data recovery, testing, and construction monitoring. She also has extensive laboratory experience in human osteology and analysis of historic and prehistoric artifacts. Additionally, she has contributed to numerous cultural resource technical reports.

Erica Ramirez-Schroeder is an Associate Archaeologist with 4 years of experience in California cultural resources management. She has experience in many aspects of archaeological fieldwork, laboratory, and reporting. These include archaeological survey, monitoring, artifact collection management, artifact analysis, CHRIS record searches, preparation of DPR forms, and ground penetrating radar. She holds a B.A. in History and an M.A. in Cultural Resources Management.

Evelyn Hildebrand, RPA, is an Associate Archaeologist with over five years of experience working in cultural resource management across California. She holds an M.A. in Applied Archaeology and a B.A. in Anthropology with a focused curriculum in archaeology. She meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology. She has participated in various aspects of archaeological fieldwork including survey, test excavation, data recovery, artifact analysis, construction monitoring, both as an archaeological monitor and field lead, and the recording and recovery of pre-contact and historic-period archaeological sites. She has contributed to and authored multiple cultural resources reports.

Andrew Bursan is an Architectural Historian with 16 years of experience in historic preservation and land planning. He has worked on a variety of projects with organizations like Caltrans, LA County Metro, and several city governments, including Pasadena, Santa Monica, San Francisco, and Los Angeles. Andrew's expertise covers project management, architectural surveys, historical assessments, and extensive historical research. He has contributed to historic context statements, technical reports, and impact analyses for cultural resources.

Lisa Westwood, RPA has 29 years of experience and meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology. She holds a B.A. in Anthropology and an M.A. in Anthropology (Archaeology). She is the Director of Cultural Resources for ECORP.

## **4.2 Records Search Methods**

ECORP conducted a records search for the Project Area at the Eastern Information Center (EIC) of the CHRIS at University of California, Riverside on November 14, 2023 (Appendix A). The purpose of the records search was to determine the extent of previous surveys within a 0.25-mile (400-meter) radius of the Proposed Project Area, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area.

In addition to the official records and maps for archaeological sites and surveys in Riverside County, the following references were also reviewed: Built Environment Resource Directory (OHP 2020); the National Register Information System (National Park Service [NPS] 2023); Office of Historic Preservation, California Historical Landmarks (CHL; OHP 2023); CHL (OHP 1996 and updates); California Points of Historical Interest (OHP 1992 and updates); Caltrans Local Bridge Survey (Caltrans 2019); Caltrans State Bridge Survey (Caltrans 2018); and *Historic Spots in California* (Kyle 2002).

Other references examined include maps and photographs. Because the Project Area is located within land that was originally part of a land grant, no patent records are available. Aerial photographs and maps reviewed include following:

- 1876 General Land Office (GLO) Plat for Township 3 South, Range 7 West;
- 1902 USGS Corona, California topographic quadrangle map (1:125,000 scale);
- 1947 photorevised version of 1942 USGS Corona, California topographic quadrangle map (1:62,500 scale);
- 1955 photorevised version of 1954 USGS Corona South, California topographic quadrangle map (1:24,000 scale);
- 1969 photorevised version of 1967 USGS Corona South, California topographic quadrangle map (1:24,000 scale); and
- 1988 photorevised version of the 1967 USGS Corona South, California topographic quadrangle map (1:24,000 scale).

ECORP reviewed aerial photographs taken in 1948, 1959, 1966, 1967, 1980, 1985, 1994, 1998, 1999, 2002, 2005, 2009, and every two years between 2010 and 2020 for any indications of property usage and built environment.

ECORP conducted a search for a local historical registry; the City of Corona has their own Historic Landmark Designation list. Riverside County does not have a local historical registry.

### **4.3 Sacred Lands File Coordination Methods**

In addition to the records search, ECORP contacted the California NAHC on December 6, 2023 to request a search of the Sacred Lands File for the Project Area (Appendix B). This search determines whether the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding TCRs, but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation.

### **4.4 Field Methods**

ECORP subjected the Project Area to an intensive pedestrian survey on December 6, 2023 under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (NPS 1983) using 15-meter-spaced transects (Figure 2). ECORP expended 1 person-day in the field. At the time, ECORP examined the ground surface for indications of surface or subsurface cultural resources and inspected the general morphological characteristics of the ground surface for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. The ECORP archaeologists did not conduct subsurface investigations or artifact collections during the pedestrian survey.

Standard professional practice requires that all cultural resources encountered during the survey be recorded using DPR 523-series forms approved by the California OHP. The resources are usually photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence using appropriate DPR forms.

## 5.0 RESULTS

### 5.1 Records Search

The records search consisted of a review of previous research and literature, records on file with the EIC for previously recorded resources, and aerial photographs and maps of the vicinity.

#### 5.1.1 Previous Research

Nine previous cultural resource investigations have been conducted within 0.25 mile of the Project Area, covering approximately 10 percent of the total area surrounding the Project Area within the records search radius (Table 2). Of the nine studies, three were conducted within the Project Area. Appendix A provides a map that depicts the locations of the investigations within 0.25 mile of the Project Area. These studies did not reveal the presence of any pre-contact or historic-period sites within the Project Area. The previous studies were conducted between 1976 and 2015.

The results of the records search indicate that 10 percent of the Project Area has been previously surveyed for cultural resources; however, these studies were conducted in smaller segments, at different times, by different consultants, and as many as 47 years ago under obsolete standards. Therefore, ECORP conducted a pedestrian survey of the Project Area under current protocols.

The record search also determined that one previously recorded historic-period resource is located within the Project Area: Corona Historic District (EIC Primary No. 33-6444), which was originally recorded by Gloria Scott in 1983. The southwestern portion of the Corona Historic District overlaps with the eastern portion of the Project Area and is bounded by Ontario Avenue to the south and Lincoln Avenue to the west. No structures are located within the Project Area.

<b>Report Number</b>	<b>Author(s)</b>	<b>Report Title</b>	<b>Year</b>	<b>Includes Portion of the Project Area?</b>
189	Mary A. Brown	Letter Report: Cultural Resources Evaluation for Proposed Water Supply Facilities for the City of Corona and Surrounding Communities (Phase III)	1976	No
3391	Joan C. Brown	Cultural Resources Reconnaissance of Main Street South Plaza Commercial Project Area in Corona, Riverside County, California	1991	No

<b>Table 2. Previous Cultural Studies within 0.25 Mile of the Project Area</b>				
<b>Report Number</b>	<b>Author(s)</b>	<b>Report Title</b>	<b>Year</b>	<b>Includes Portion of the Project Area?</b>
5201	Adrianna Jackson	Letter Report: Records Search Results for Sprint PCS Facility RV54XC471A (Jefferson Substation Site) Corona, Riverside County, CA	2000	No
7218	Deborah K. B. McLean and Brooks R. Smith	Cultural Resources Survey Report for Pacific Bell Mobile Services Telecommunications Facility (CM 341-02) in the City of Corona, Riverside County, California	1997	Yes
7219	Theodore G. Cooley	Archaeological Survey Report for Southern California Edison Company Underground Cable Conduit Installations for the East and West Taps to the Chase Substation, City of Corona, Riverside County, California	2007	Yes
8046	Sherri Gust, Amy Glover, and Veronica Harper	Phase I Cultural Resources Assessment Report for the Vicentia Elementary School Project in Corona, California	2008	No
9526	Gabriel Ocampo	Cultural Resources Survey Macbeth/Ensite #24085 (288217)	2015	Yes
10280	Andrew Belcourt	Cultural Resource Assessment Reclaimed Waterlines Section 106 Project City of Corona Riverside County, California	2011	No
10355	Curt Duke	Cultural and Paleontological Resources Assessment for the Proposed Rite Aid Pharmacy Project, City of Corona, Riverside County, California (Duke CRM Project C-0179)	2015	No





**Figure 2. Survey Coverage**



### 5.1.2 Map Review and Aerial Photographs

The review of aerial photographs and maps of the Project Area provides information on the past land uses of the Project Area and potential for buried archaeological sites. This information shows that the Project Area was initially used as a road. Following is a summary of the review of maps and photographs.

- The 1876 GLO Plat for Township 3 South, Range 7 West indicates that the Project Area is situated within Lot No. 37 of the La Sierra (B. Yorba) Land Grant. The Santa Ana River is depicted flowing in a northeast–southwest direction, approximately 1.5 miles north of the Project Area. The map does not depict any development or structures within the Project Area.
- The 1902 USGS Corona, California topographic quadrangle map (1:125,000 scale) depicts the Project Area in the town of Corona, within the La Sierra (Yorba) Land Grant. The map depicts a road grid, and the grid’s central east–west-oriented road corresponds with the alignment of present-day Ontario Avenue. The map also depicts two north–south-oriented roads that correspond with the alignments of present-day Lincoln and Buena Vista avenues as bisecting the east–west-oriented road. The map depicts an unimproved north–south-oriented road as terminating at Ontario Avenue, located between present-day Lincoln Avenue and present-day Buena Vista Avenue. The map depicts at least four structures in the vicinity of the Project Area, in addition to an unnamed waterway east of the Project Area.
- The 1947 photorevised version of 1942 USGS Corona, California topographic quadrangle map (1:62,500 scale) depicts an east–west-oriented railroad track alignment that parallels Ontario Avenue to the south. The map depicts a north–south-oriented road that corresponds with the alignment of present-day Oak Avenue. The map also depicts at least 10 additional structures in the vicinity of the Project Area compared to the previous map.
- An aerial photograph from 1948 shows that the Project Area was a road surrounded by agricultural land. The photograph shows an east–west-oriented road, which corresponds with present-day Ontario Avenue, within the Project Area. The photograph shows at least five structures along the Ontario Avenue alignment, all of which are outside of and to the north and south of the Project Area.
- The 1955 photorevised version of 1954 USGS Corona South, California topographic quadrangle map (1:24,000 scale) depicts the railroad track alignment, which is labeled as “Atchison and Topeka”. The map depicts Oak Avenue as an unimproved north–south-oriented road that terminates at Ontario Avenue. The map also depicts one unnamed stream meandering through the Project Area in a north-to-south direction at the intersection of present-day Oak and Ontario avenues. The map also depicts another small waterway paralleling Ontario Avenue on the western side; it ends outside of the Project Area.
- An aerial photograph from 1959 shows one unimproved north–south-oriented road, which corresponds to present-day Lincoln Avenue. The photograph also shows a drainage flowing through the Project Area in the same alignment as present-day Oak Avenue. The photograph also shows an unimproved north–south-oriented road that corresponds with present-day Oak Avenue.

- Aerial photographs from 1966 and 1967 do not show any changes to the Project Area compared to the 1959 aerial photograph.
- The 1969 photorevised version of 1967 USGS Corona South, California topographic quadrangle map (1:24,000 scale) depicts the Project Area as unchanged compared to the 1955 map. It depicts significant commercial and residential growth north of the Project Area. This map does not depict the Atchison and Topeka railroad tracks that were depicted on the 1955 map.
- An aerial photograph from 1980 shows further residential and commercial development immediately north of the Project Area. The photograph also shows that the area south of the Project Area is agricultural land; the section of the Project Area along Lincoln Avenue and Othello Lane is residential property.
- The 1988 photorevised version of the 1967 USGS Corona South, California topographic quadrangle map (1:24,000 scale) depicts a north–south-oriented road that corresponds with the alignment of present-day South Vincentia Avenue as bisecting Ontario Avenue.
- An aerial photograph from 1985 does not show any changes to the Project Area compared to the 1980 aerial photograph.
- Aerial photographs from 1994, 1998, and 1999 do not show any further changes to or development of the Project Area; however, the Project Area and most of the land to the south along Ontario Avenue remain largely agricultural land; the photographs show at least three farm complexes in this area. The 1994 aerial photograph shows that the unnamed stream that passes under Ontario Avenue has been channelized and lined with concrete.
- An aerial photograph from 2002 does not show any changes to or development of the Project Area; however, the farm complexes south of Ontario Avenue and the Project Area have been cleared, and several buildings have been constructed. The section of the Project Area along Lincoln Avenue and Othello Lane remains undeveloped.
- An aerial photograph from 2005 does not show any changes to or development of the Project Area; however, the land north of Ontario Avenue and the Project Area, which is located between Oak and Lincoln avenues, is under residential construction.
- All other aerial photographs from 2009 and every two years between 2009 and 2020 show the Project Area in its current state.

In sum, the majority of the Project Area has been developed since at least 1902, as evidenced by the inclusion of the town of Corona on the 1902 topographic map. The surrounding land remained mostly agricultural until the early 2000s, when residential and commercial development increased in the vicinity.

### **5.1.3 Records**

The OHP's Built Environment Resource Directory for Riverside County (dated March 3, 2020) included one resource within 0.25 mile of the Project Area: the Historic Corona District, which appears to run parallel to the northeastern edge of the Project Area (OHP 2020).

The National Register Information System (NPS 2023) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register property is located in the City of Corona, approximately 1 mile northeast of the Project Area.

ECORP reviewed resources listed as *California Historical Landmarks* (OHP 1996) by the OHP (2023) on January 16, 2024. The nearest listed landmark is No. 190, Painted Rock; its plaque is located at the Corona Women's Improvement Club, approximately 1 mile northeast of the Project Area.

*Historic Spots in California* (Kyle 2002) mentions a monument for the Old Temescal Road, which is located in the City of Corona, approximately 9 miles southeast of the Project Area. This road was first utilized by Native American tribes that travelled through the area and is still used today as a paved highway. Kyle also mentions the Corona Women's Improvement Club—a volunteer organization committed to improving the community of Corona—which is now included in the National Register of Historic Places.

The Caltrans Bridge Local and State Inventories (Caltrans 2018, 2019) did not list any historic bridges within 0.25 mile of the Project Area.

The *Handbook of North American Indians* (Bean and Smith 1978) lists the nearest Native American village as Paxauxa of the Gabrielino village along Temescal Creek, which is directly across from a large Luiseno village in the City of Corona.

## **5.2 Sacred Lands File Results**

The results of the Sacred Lands File search by the NAHC were negative for the presence of Native American cultural resources within the Project Area. A record of all correspondence is provided in Appendix B.

## **5.3 Field Survey Results**

ECORP surveyed the Project Area for cultural resources on December 6, 2023 (Figures 3 and 4). Ground surface visibility was 100 percent in one of the residential lots. The remainder of the survey consisted of walking both sides of the sidewalk along Ontario Avenue; ground surface visibility in these areas was 0 percent due to the presence of built environments and paved streets and roads.



**Figure 3. Project Area Overview (view southwest; December 6, 2023).**



**Figure 4. Project Area Overview (view northeast; December 6, 2023).**

### **5.3.1 Cultural Resources**

As a result of previous investigations by other firms, the Corona Historic District (33-6444) was recorded within the Project Area; ECORP revisited the Corona Historic District during the 2023 pedestrian survey. The 2023 survey by ECORP also identified five new cultural resources within the Project Area.

The following sections provide resource descriptions and evaluations of the five new cultural resources identified during the 2023 pedestrian survey. Confidential DPR site records are provided in Appendix D.

### 5.3.1.1 *Previously Recorded Resources*

#### **Resource HRI 33-6444**

Resource HRI 33-6444 is located on Lincoln Avenue and is commonly referred to as the Corona Historic District. The historic district area is bound by the railroad tracks to the north, Rimpau Avenue to the east, Ontario Avenue to the south, and Lincoln Avenue to the west. The growth of Corona between 1887 and 1910 featured Victorian-style wood-frame houses. The southwestern boundary of this historic district is parallel to the northeastern boundary of the Project Area.

ECORP revisited the location of the district on December 6, 2023 (Figure 5). The houses within the district parallel Ontario Avenue on the north but are outside the Project Area. The boundary drawn by the EIC follows Lincoln Avenue and Ontario Avenue.



**Figure 5. West Ontario Road (view west; December 12, 2023).**

### 5.3.1.2 *Newly Recorded Resources*

#### **Residence at 2201 South Lincoln Avenue**

The residence at 2201 South Lincoln Avenue (Resource OAW-01) consists of a one-story, single-family, Minimal Traditional-style house on an irregular plan (Figure 6). A side-gabled roof with slightly overhanging eaves tops the residence. Stucco and a small section of board-and-batten wood siding compose the exterior surfaces, along with wood and brick trim. Double-hung wood-frame windows and metal casement windows punctuate the primary northern façade, along with fixed-pane wood-frame windows on side elevations. An exterior brick chimney distinguishes the primary facade. An attached two-car garage spans the southern end of the house. The residence sits on a 0.46-acre property, and vegetation surrounding the house includes cactus trees on the front grass lawn and pine, palm, and pepper trees in the rear.



Although the dwelling at 2201 South Lincoln Avenue is located just south of HRI 33- 6444, a potential Corona Historic District surveyed in 1983 by the Riverside County Historical Commission, the property shows little potential to be a contributor. The district is characterized by Queen Anne, Colonial Revival, and Craftsman style residences built prior to 1940 while the residential property is characterized as a later 1940s Minimal Traditional style dwelling that is not typical of architectural styles or historic themes in the district.



**Figure 6. Primary Façade of the Residence at 2201 South Lincoln Avenue (view south; December 12, 2023).**

### ***Evaluation***

The residence at 2201 South Lincoln Avenue (Resource OAW-01) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

Archival research of 2201 South Lincoln Avenue did not indicate any associations with events that have made a significant contribution to the broad patterns of history. Though the residence is reflective of the trend of 1940s-era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The residence was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local, state, or national level. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

To be eligible under NRHP/CRHR Criterion B/2, the subject property would need to be directly associated with a person considered historically significant at the local, state, or national level. There is no indication

that current residents—Kiran and Swatiben Patel—or any other former owners are people of great historical significance. In addition, directory and newspaper research did not uncover other names associated with the residence at 2201 South Lincoln Avenue. As a result, archival research failed to indicate any associations with any significant persons. It is not eligible for the NRHP/CRHR under Criterion B/2.

*NRHP/CRHR Criterion C/3*

Built in 1944, the residence at 2201 South Lincoln Avenue represents a typical example of a Minimal Traditional-style house, which was a common housing type in California from 1935 to 1950. This Minimal Traditional dwelling is not a fully realized expression of the style, which may feature dormers, original metal casement corner windows, and a recessed main entrance. More high style and intact versions of Minimal Traditional dwellings are located throughout Corona and Riverside County. As a commonplace 1940s-era house, it does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

*NRHP/CRHR Criterion D/4*

The information potential for 2201 South Lincoln Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

*Integrity*

The residence at 2201 South Lincoln Avenue possesses integrity because it has not been moved. The setting around the property has changed from being mostly agricultural land in the mid-1940s to being surrounded by single-family suburban tract homes. Therefore, the change in surroundings has resulted in a lack of integrity of setting, feeling, and association. A major addition to the western side of the house that completely altered the primary northern façade and the loss of original windows and siding have resulted in a loss of integrity of design, materials, workmanship.

Regardless of integrity, due to lack of historical significance, 2201 South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

*17.63.050 Corona Register – Landmark listing criteria.*

Criterion A, 1. Though the property is greater than 50 years old, ECORP found no indication that the property is of exceptional importance.

Criterion A, 2. Though the property is reflective of the trend of 1940s era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The dwelling was not the first or last of its type, and similar types exist throughout the region. Furthermore,

research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the property is reflective of the trend of 1940s era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The dwelling was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the residence at 2201 South Lincoln Avenue is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. Built in 1944, the dwelling at 2201 South Lincoln Avenue represents a typical example of a Minimal Traditional-style house, which was a common housing type in California from 1935 to 1950. This Minimal Traditional dwelling is not a fully realized expression of the style, which may feature dormers, original metal casement corner windows, and a recessed main entrance. More high style and intact versions of Minimal Traditional dwellings are located throughout Corona and Riverside County.

Criterion A, 3d. 2201 South Lincoln Avenue is a commonplace dwelling in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that 2201 South Lincoln Avenue is the work of a notable builder, designer, or architect.

Criterion A, 3f. 2201 South Lincoln Avenue represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period.

Criterion A, 3g. 2201 South Lincoln Avenue is not in a unique location.

Criterion A, 3h. 2201 South Lincoln Avenue is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that 2201 South Lincoln Avenue contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. A major addition to the western side of the house that completely altered the primary northern façade, a garage addition, and the loss of original windows and siding have resulted in a loss of integrity of design, materials, and workmanship. The setting around the property has changed from being mostly agricultural land in the mid-1940s to being completely developed with single-family suburban tract homes. Therefore, the change in surroundings has resulted in a lack of integrity of setting, feeling, and association.

Criterion C. The subject dwelling is not a reconstructed improvement.



Criterion D. The subject dwelling is not a site, improvement, or natural feature that is intended to be primarily commemorative.

### **West Ontario Avenue**

West Ontario Avenue (Resource OV-07) is an approximately 5,400-foot-long, east–west-oriented segment road in Corona. It is a 70-foot-wide, five-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps and reflective paint, which includes white side-stripes and turn arrows.

### ***Evaluation***

West Ontario Avenue (Resource OV-07) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

West Ontario Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County, as well as access to rural properties in southern Corona. Furthermore, the construction of West Ontario Avenue did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that West Ontario Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained West Ontario Avenue. However, there is nothing in the archival record to suggest that it is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional five-lane suburban road, indistinguishable from multiple similar roads in Riverside County, West Ontario Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### *NRHP/CRHR Criterion D/4*

The information potential of West Ontario Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

### *Integrity*

Though West Ontario Avenue possesses integrity of location, the road has gone from a circa 1920s two-lane dirt road to a five-lane paved road. In addition, the setting has completely changed from primarily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, West Ontario Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

#### *17.63.050 Corona Register – Landmark listing criteria.*

This section evaluates the resource against the Corona Register's Landmark listing criteria (Section 1.3.4)

Criterion A, 1. Though the subject road is greater than 50 years old, research found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar examples exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional five-lane suburban road, indistinguishable from multiple similar roads in Riverside County, West Ontario Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials, or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though West Ontario Avenue possesses integrity of location, the road has gone from a circa 1920s two-lane dirt road to a five-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, West Ontario Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

### **South Lincoln Avenue**

South Lincoln Avenue (Resource OV-08) is an approximately 1,300-foot-long, north-south-oriented segment road in Corona (Figure 7). It is an 80-foot-wide, four-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s; a c. 1980s section extends south of West Ontario Avenue. The western and eastern sides of the road include concrete gutters and bike lanes. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.



**Figure 7. South Lincoln Avenue (view south; December 12, 2023).**

### ***Evaluation***

South Lincoln Avenue (Resource OV-08) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

South Lincoln Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of South Lincoln Avenue did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that South Lincoln Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained South Lincoln Avenue. However, there is nothing in the archival record to suggest that it is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional four-lane suburban road, indistinguishable from multiple similar roads in Riverside County, South Lincoln Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

*NRHP/CRHR Criterion D/4*

The information potential of South Lincoln Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

*Integrity*

Though South Lincoln Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a four-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

*17.63.050 Corona Register – Landmark listing criteria.*

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional four-lane suburban road, indistinguishable from multiple similar roads in Riverside County, South Lincoln Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though South Lincoln Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a four-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

### **Oak Avenue**

Oak Avenue (Resource OV-09) is an approximately 170-foot-long, north-south-oriented segment road in Corona (Figure 8). It is a 50-foot-wide, two-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.



**Figure 8. Oak Avenue (view southwest; December 12, 2023).**

### ***Evaluation***

Oak Avenue (Resource OV-09) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

Oak Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of Oak Avenue also did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that Oak Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained Oak Avenue. However, there is nothing in the archival record to suggest that Oak Avenue is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional two-lane suburban section line road, indistinguishable from multiple similar roads in Riverside County, Oak Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

*NRHP/CRHR Criterion D/4*

The information potential of Oak Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

*Integrity*

Though Oak Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Oak Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

*17.63.050 Corona Register – Landmark listing criteria.*

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional two-lane suburban road, indistinguishable from multiple similar roads in Riverside County, Oak Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.



Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials, or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though Oak Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Oak Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

### **Buena Vista Avenue**

Buena Vista Avenue (Resource OV-10) is an approximately 170-foot-long, north-south-oriented segment road in Corona (Figure 9). It is a 70-foot-wide, two-lane section of suburban road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.



**Figure 9. Buena Vista Avenue (view northeast; December 12, 2023).**

### ***Evaluation***

Buena Vista Avenue (Resource OV-10) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

Buena Vista Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of Buena Vista Avenue also did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that Buena Vista Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained Buena Vista Avenue. However, there is nothing in the archival record to suggest that Buena Vista Avenue is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional two-lane suburban road, indistinguishable from multiple similar roads in Riverside County, Buena Vista Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

*NRHP/CRHR Criterion D/4*

The information potential of Buena Vista Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

*Integrity*

Though Buena Vista Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Buena Vista Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

*17.63.050 Corona Register – Landmark listing criteria.*

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional two-lane suburban section line road, indistinguishable from multiple similar roads in Riverside County, Buena Vista Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though Buena Vista Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Buena Vista Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

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## **6.0 MANAGEMENT CONSIDERATIONS**

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### **6.1 Conclusions**

ECORP identified five historic built environment resources within the Project Area, including 2201 South Lincoln Avenue (OAW-01) and West Ontario Avenue (OV-07), South Lincoln Avenue (OV-08), Oak Avenue (OV-09), and Buena Vista Avenue (OV-10). ECORP evaluated these resources using eligibility criteria for the NRHP, CRHR, and the City of Corona's Historic Landmarks list. Archival research, field survey, and evaluations of the residential property and roads reveal that none of the resources are considered Historical Resources for the purposes of CEQA, nor a Historic Property for the purposes of Section 106 of the NHPA. Furthermore, no potential indirect impacts to Historical Resources were identified.

In cases where ground visibility is hindered by impervious or impenetrable surfaces, such as pavement, buildings, or structures, and where such circumstances prevent archaeological survey or testing by traditional field methods, other sources of information must be utilized in assessing the potential for archaeological deposits. These sources may include, as appropriate and available, records search and literature review information, archival records, historic maps and aerial photographs, topographic maps, or

geoarchaeological sensitivity modeling. As a last resort, archaeological monitoring during the removal of such impervious surfaces during project construction may be necessary.

## **6.2 Likelihood for Subsurface Cultural Resources**

The previous ground disturbing activities during the development of the subdivision within the Project Area would have exposed or destroyed any intact subsurface pre-contact or historic-era archaeological deposits; however, there is always a possibility that subsurface cultural resources may be present. Overall, there is a low potential for buried archaeological deposits in the Project Area.

## **6.3 Recommendations**

### **6.3.1 Post-Review Discoveries**

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, ECORP recommends the following procedures.

- If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:
  - If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
  - If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined by CEQA or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
  - If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Riverside County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify

the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

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## LIST OF APPENDICES

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Appendix A – Records Search Confirmation and Historical Society Coordination

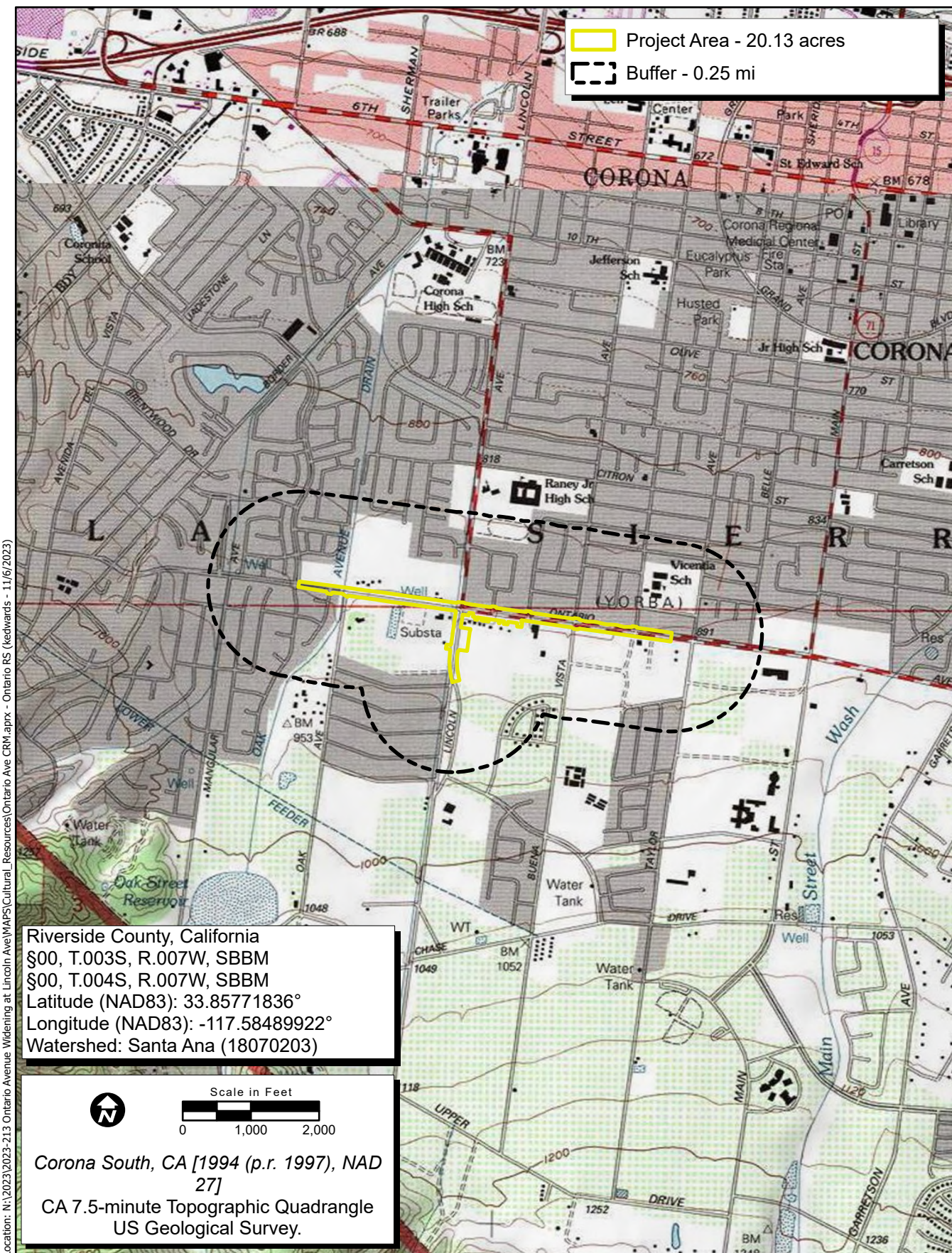
Appendix B – Sacred Lands File Coordination

Appendix C – Project Area Photographs

Appendix D – ***Confidential*** Cultural Resource Site Locations and Site Records

Records Search Confirmation and Historical Society Coordination





Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Cultural\_Resources\Ontario Ave CRM.aprx - Ontario RS (kewards - 11/6/2023)

Riverside County, California  
 §00, T.003S, R.007W, SBBM  
 §00, T.004S, R.007W, SBBM  
 Latitude (NAD83): 33.85771836°  
 Longitude (NAD83): -117.58489922°  
 Watershed: Santa Ana (18070203)

Scale in Feet  
 0 1,000 2,000

Corona South, CA [1994 (p.r. 1997), NAD 27]  
 CA 7.5-minute Topographic Quadrangle  
 US Geological Survey.

Map Date: 11/6/2023  
 Sources: ESRI, USGS

**Records Search**



2023-213 Ontario Avenue Widening at Lincoln Ave





HABS \_\_\_\_\_ HAER \_\_\_\_\_ NR 7 SHL \_\_\_\_\_ Loc \_\_\_\_\_  
UTM: A 11/448580/3749740 B 11/449720/3748090  
C 11/448150/3747000 D 11/445880/3746320  
E 11/446870/3749740

**HISTORIC RESOURCES INVENTORY**

**IDENTIFICATION**

1. Common name: Corona Historic District
2. Historic name: 33-6444
3. Street or rural address: Lincoln Avenue  
City Corona Zip 91720 County Riverside
4. Parcel number: N/A
5. Present Owner: N/A Address: \_\_\_\_\_  
City \_\_\_\_\_ Zip \_\_\_\_\_ Ownership is: Public \_\_\_\_\_ Private \_\_\_\_\_
6. Present Use: N/A Original use: \_\_\_\_\_

**DESCRIPTION**

- 7a. Architectural style: (District--N/A)
- 7b. Briefly describe the present *physical description* of the site or structure and describe any major alterations from its original condition:

The Corona Historic area is bounded by the railroad tracks to the north, Rimpau Avenue to the east, Ontario Avenue to the south, and Lincoln Avenue on the west. The initial growth of the town from about 1887 to 1910 featured sturdy vernacular and Victorian style wood frame houses. From about 1910 through the thirties the increase in the working class brought about many bungalows and smaller vernacular wood frame homes on the streets within the Grand Boulevard circle. Large stately homes, including Queen Annes, Colonial Revivals, and Craftsman bungalows, belonging to well to do citrus owners and influential businessmen are along the southern section of Grand Boulevard and on major street corners. Commercial structures were built along Sixth and Main Streets. In between the residential areas were stately schools and small family markets. The area to the north of Sixth Street developed into a lower class neighborhood of Italian and Mexican immigrants. Above Olive Street on the south were thriving citrus groves and large two-story homes of various styles.

Attach Photo(s) Here

[NO PHOTO]

8. Construction date: N/A  
Estimated \_\_\_\_\_ Factual \_\_\_\_\_
9. Architect ----
10. Builder \_\_\_\_\_
11. Approx. property size (in feet)  
Frontage \_\_\_\_\_ Depth \_\_\_\_\_  
or approx. acreage \_\_\_\_\_
12. Date(s) of enclosed photograph(s) \_\_\_\_\_

33-6444

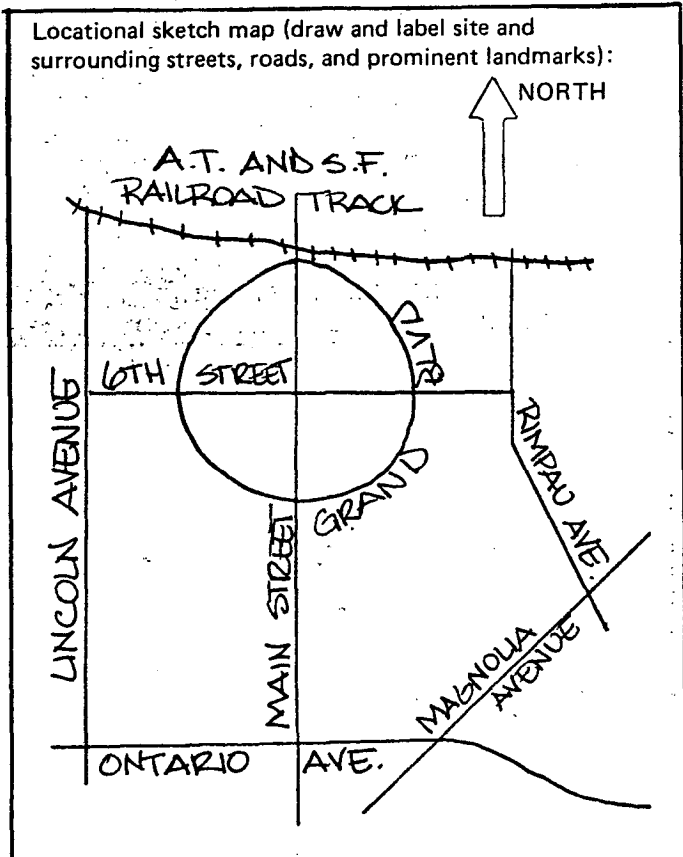
- 13. Condition: Excellent  Good  Fair  Deteriorated  No longer in existence  N/A
- 14. Alterations: \_\_\_\_\_
- 15. Surroundings: (Check more than one if necessary) Open land  Scattered buildings  Densely built-up   
Residential  Industrial  Commercial  Other: N/A
- 16. Threats to site: None known  Private development  Zoning  Vandalism   
Public Works project  Other: N/A
- 17. Is the structure: On its original site?  Moved?  Unknown?  N/A
- 18. Related features: N/A

**SIGNIFICANCE**

19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site.)  
 The city of South Riverside, now known as Corona, was founded in 1886 by Robert B. Taylor. He helped to organize the South Riverside Land and Water Company which hired H. Clay Kellogg to survey the townsite. The new plans for the area included the 3 mile circular Grand Boulevard with interior streets set at right angles. The Boulevard was used in 1913, 1914 and 1916 for an international road racing event. The land to the south of the circle was ideally suited to citrus, and within a few years the groves in this area were flourishing. Many of these groves have now been replaced with modern housing. Light industry such as packing houses and lemon processing plants sprang up along the railroad tracks which were north of the Boulevard. Most of the early packing houses are gone and the lemon processing plant is scheduled for demolition in 1984. The center of the circle, Sixth and Main Streets, became the core of the town's commercial district. This business area was completely remodeled and changed during the 1960s through an urban renewal project. Though the city's early residential areas are

- 20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)  
 Architecture 1 Arts & Leisure \_\_\_\_\_  
 Economic/Industrial 2 Exploration/Settlement \_\_\_\_\_  
 Government \_\_\_\_\_ Military \_\_\_\_\_  
 Religion \_\_\_\_\_ Social/Education \_\_\_\_\_
- 21. Sources (List books, documents, surveys, personal interviews and their dates).

22. Date form prepared September 12, 1983  
 By (name) Gloria Scott  
 Organization Riv. Co. Historical Comm.  
 Address: P.O. Box 3507  
 City Riverside Zip 92519  
 Phone: (714) 787-2551





CORONA HISTORIC DISTRICT  
Significance Continued:

still intact, there have been some significant changes. First, the lower middle class district that had housed the early Mexican and Italian settlers has changed due to either major structural improvements or demolition of buildings during construction of the 91 Freeway. Many of the larger homes along Grand Boulevard have been split into apartments and are either structurally changed and/or deteriorated. Despite these problems many of these earlier homes remain.



# Sacred Lands File & Native American Contacts List Request

## Native American Heritage Commission

1550 Harbor Blvd, Suite 100

West Sacramento, CA 95691

916-373-3710

916-373-5471 – Fax

[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

*Information Below is Required for a Sacred Lands File Search*

**Project:** Ontario Road Widening at Lincoln Avenue Project (2023-213)

**County:** Riverside

**USGS Quadrangle Name:** Corona South, California 1994 (PR 1997)

**Township:** 3 South, 4 South **Range:** 7 West

**Company/Firm/Agency:** ECORP Consulting, Inc.

**Contact Person:** Erica Ramirez-Schroeder

**Street Address:** 2525 Warren Drive

**City:** Rocklin

**Zip:** 95677

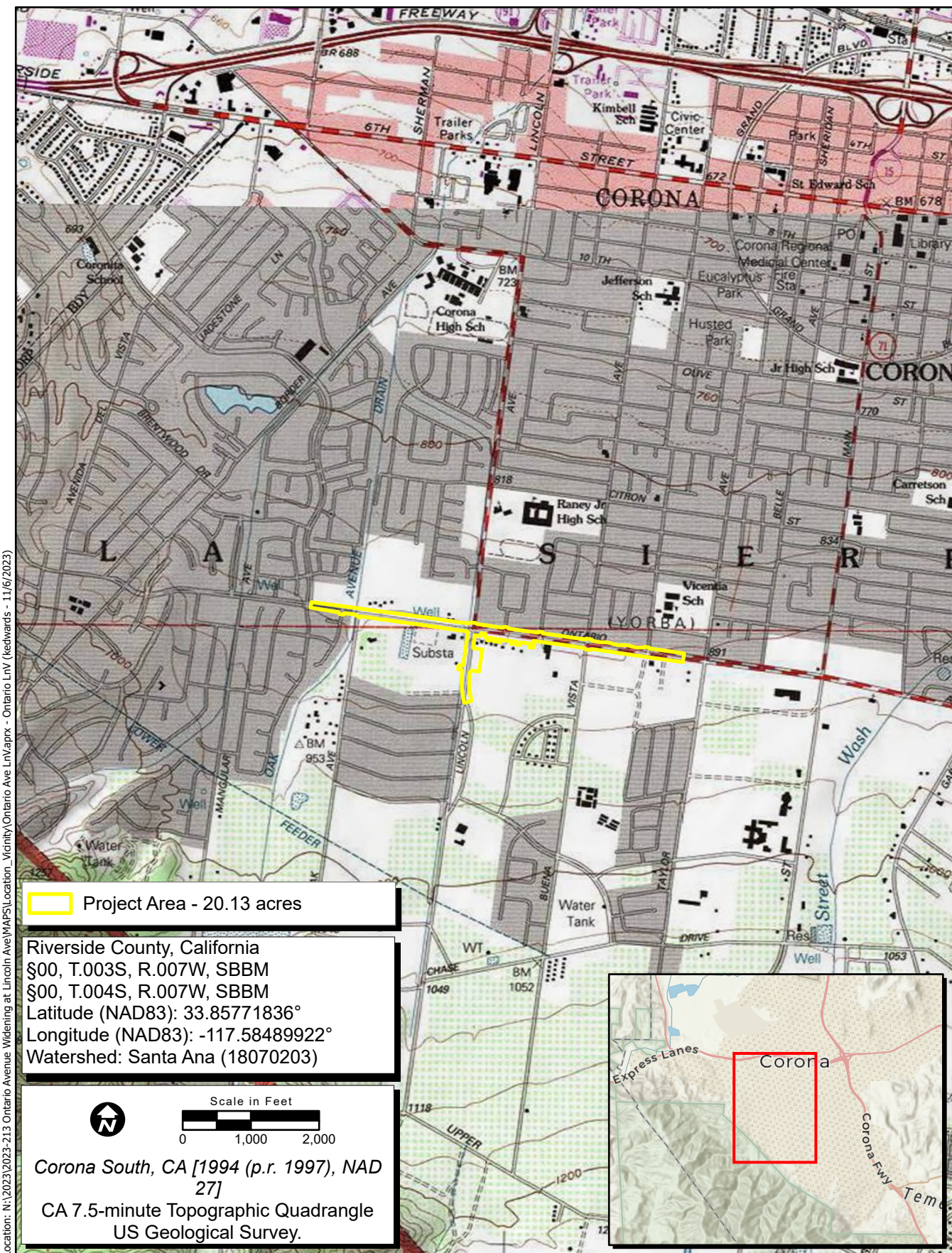
**Phone:** 916-782-9100

**Fax:** 916-782-9134

**Email:** [eramirez@ecorpc consulting.com](mailto:eramirez@ecorpc consulting.com)

### **Project Description:**

See attached a location and vicinity map for reference.



Project Area - 20.13 acres

Riverside County, California  
 §00, T.003S, R.007W, SBBM  
 §00, T.004S, R.007W, SBBM  
 Latitude (NAD83): 33.85771836°  
 Longitude (NAD83): -117.58489922°  
 Watershed: Santa Ana (18070203)

Scale in Feet  
 0 1,000 2,000  
 Corona South, CA [1994 (p.r. 1997), NAD 27]  
 CA 7.5-minute Topographic Quadrangle  
 US Geological Survey.

Map Date: 11/6/2023  
 Sources: ESRI, USGS

**Figure 1. Project Location and Vicinity**

2023-213 Ontario Avenue Widening at Lincoln Ave

Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MAPS\Location\_Vicinity\Ontario Ave Ln\Mapx - Ontario Ln\ (kewards - 11/6/2023)



## NATIVE AMERICAN HERITAGE COMMISSION

January 5, 2024

Erica Ramirez-Schroeder  
ECORP Consulting, Inc.

Via Email to: [eramirez@ecorpconsulting.com](mailto:eramirez@ecorpconsulting.com)

### Re: Ontario Road Widening at Lincoln Avenue Project, Riverside County

Dear Ms. Ramirez-Schroeder:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: [Andrew.Green@nahc.ca.gov](mailto:Andrew.Green@nahc.ca.gov).

Sincerely,



Andrew Green  
Cultural Resources Analyst

Attachment



CHAIRPERSON  
**Reginald Pagaling**  
Chumash

VICE-CHAIRPERSON  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

SECRETARY  
**Sara Dutschke**  
Miwok

PARLIAMENTARIAN  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

COMMISSIONER  
**Laurena Bolden**  
Serrano

COMMISSIONER  
**Reid Milanovich**  
Cahuilla

COMMISSIONER  
**Vacant**

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok, Nisenan

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
NAHC.ca.gov

## **APPENDIX C**

---

Project Area Photographs

**State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
PHOTOGRAPH RECORD**

**Primary #  
HRI#  
Trinomial**

Page 1 of Resource/Project Name: Ontario Avenue Widening at Lincoln Avenue  
Year 2023

Camera: iphone 12

Lens Size:

Film Type and Speed: Digital

Negatives Kept at: ECORP Consulting, Inc.

Mo.	Day	Time	Subject/Description	View Toward	Accession #
12	6	CLL	Overview, east part of Project Area	E	0571
12	6		Ground surface visibility between sidewalk and road, south side of Ontario Avenue	E	0572
12	6		Project Area overview from east boundary, south of Ontario Avenue	W	0573
12	6		Project Area overview from east boundary, north of Ontario Avenue	W	0574
12	6		Ground surface visibility between road and sidewalk, north side of Ontario Avenue	W	0575
12	6		Overview of Ontario Avenue at Buena Vista Avenue intersection	SW	0576
12	6		Overview of Ontario Avenue at Conejo Street	SW	0577
12	6		Date nail on pole in north side, Ontario Avenue and Conejo	N	0578
12	6		Pole with date nail overview	W	0579
12	6		Ontario Avenue at Glenhaven Drive	SE	0580
12	6		Date nails on pole near northeast corner of Ontario and Lincoln Avenue	N	0581
12	6		Overview intersection of Ontario Avenue and Lincoln Avenue	SW	0582
12	6		Overview intersection of Ontario Avenue and Lincoln Avenue	SE	0583
12	6		Overview west side of Project Area from Ontario/ Lincoln intersection	W	0584
12	6		Date nails on pole, north side of Ontario, south of Eureka Street/ Lavendar Way	N	0585
12	6		Pole overview	E	0586
12	6		Ontario Avenue at Oak Avenue	SW	0587
12	6		Ontario Avenue at Silver Oak Drive	SW	0588
12	6		Ontario Avenue/ Via Pacifica intersection	SW	0589
12	6		Project Area overview from west boundary, north side of Ontario Avenue	E	0590
12	6		Project Area overview from west boundary, south side of Ontario Avenue	E	0591
12	6		Ontario Avenue at Silver Oak Drive	NE	0592
12	6		Ontario Avenue at Oak Drive	NE	0593
12	6		Ground surface visibility, south side Ontario Avenue, western portion of Project Area	E	0594
12	6		Ground surface visibility, south side Ontario Avenue, between Oak Avenue and Lincoln Avenue	E	0595
12	6		Overview of Ontario/ Lincoln intersection	NE	0596
12	6		Overview Corona Historic District at Ontario Avenue/ Lincoln Avenue	NE	0597
12	6		Overview Lincoln Avenue from Ontario Avenue intersection	S	0598

12	6		Date nail on pole, Lincoln Avenue near Stan Grube Drive	W	0599
12	6		Pole overview	S	0600
12	6		Lincoln Avenue at Stan Grube Drive	SE	0601
12	6		Lincoln Avenue overview from southern Project Area boundary	N	0602
12	6		Ground surface visibility sidewalk and road, east side of Lincoln Avenue	N	0603
12	6		Lincoln Avenue at Othello Lane	NW	0604
12	6		Overview empty lot at northeast corner of Lincoln and Othello	NW	0605
12	6		Ground surface visibility in empty lot	NE	0606
12	6		Ground surface visibility in empty lot	SE	0607
12	6		OAW-01 (2201 South Lincoln Avenue) from Lincoln Avenue	NE	0608
12	6		OAW-01, southwest corner	NE	0609
12	6		OAW-01, west façade	E	0610
12	6		OAW-01, northwest corner	SE	0611
12	6		OAW-01, front façade	S	0612
12	6		OAW-01, front door	S	0613
12	6		OAW-01, side elevation	SE	0614
12	6		OAW-01, from northeast corner of Ontario Avenue and Lincoln Avenue	S	0615
12	6		OAW-01, lot overview from south side of Ontario Avenue	SW	0616
12	6		Lot overview, 1052 West Ontario Avenue	S	0617
12	6		Lot overview, 1052 West Ontario Avenue	SE	0618
12	6		Lot overview, 1052 West Ontario Avenue	SE	0619
12	6		Lot overview, 1044 West Ontario Avenue	S	0620
12	6		Lot overview, 1038 West Ontario Avenue	S	0621
12	6		Corona Historic District overview from south side of Ontario Avenue	N	0622
12	6		Lot overview, 1018 West Ontario Avenue	S	0623
12	6		Lot overview, 1018 West Ontario Avenue	S	0624
12	6		Lot overview, 1010 West Ontario Avenue	S	0625
12	6		Lot overview, 1002 West Ontario Avenue	S	0626
12	6		Lot overview, 1002 West Ontario Avenue, inside gate	S	0627
12	6		Ontario Avenue at Buena Vista Avenue	NE	0628
12	6		Corona Historic District from Ontario Avenue at Taylor Avenue	N	0629
12	6		Taylor/ Ontario intersection (outside Project Area)	N	0630
12	6		Corona Historic District from Ontario Avenue	N	0631



12	6		1032 Ontario Avenue portion of property inside Project Area	SE	0632
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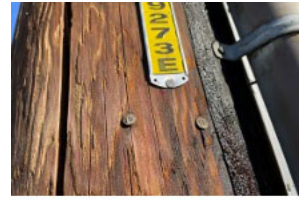
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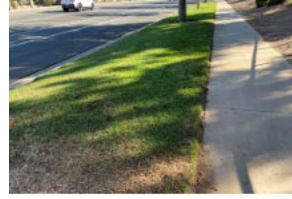
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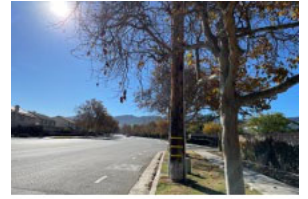
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IMG\_0612



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IMG\_0614



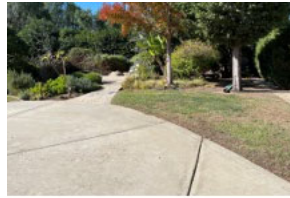
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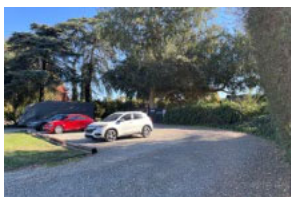
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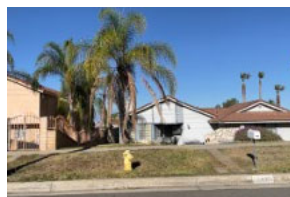
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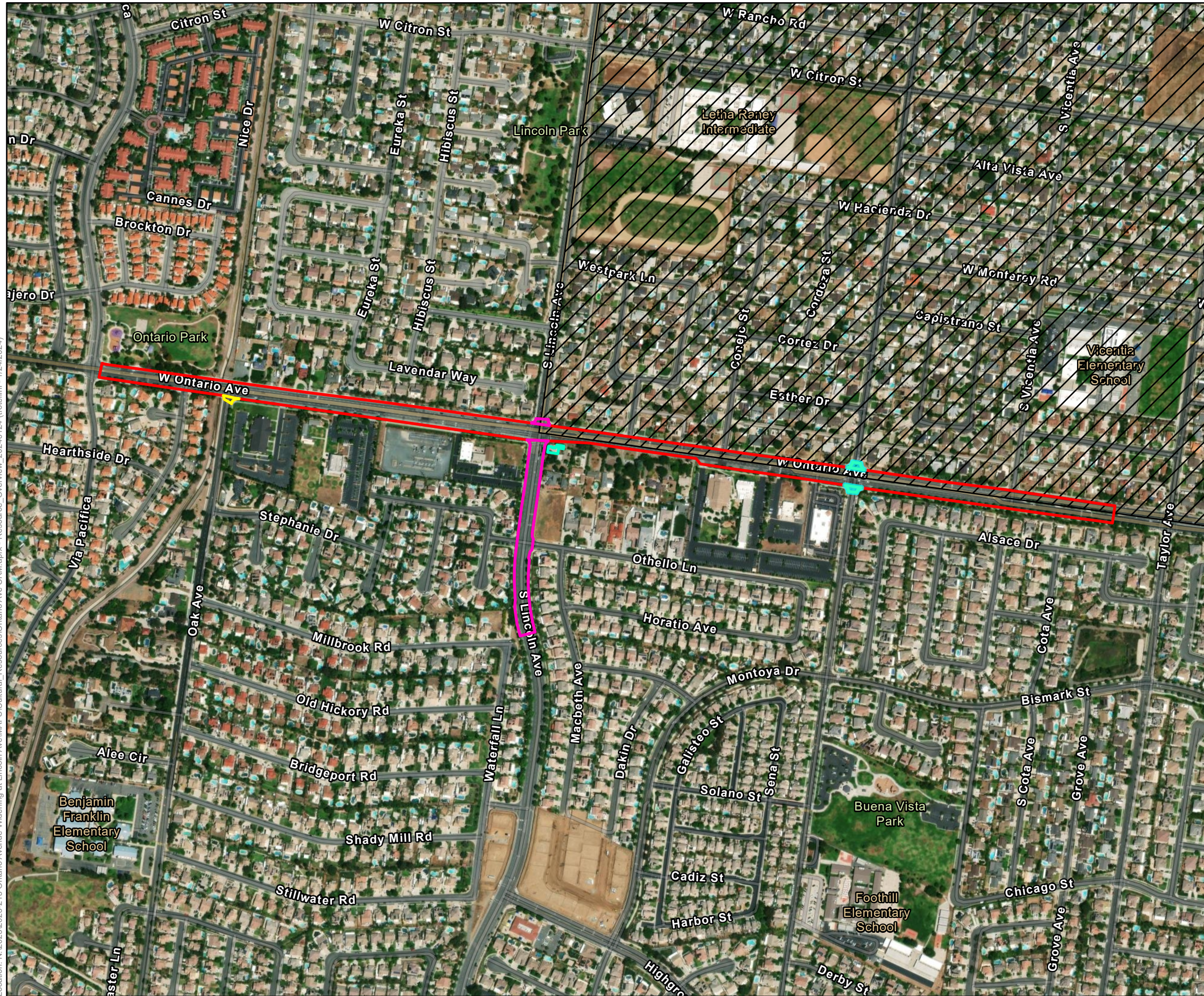


***Confidential*** Cultural Resource Site Locations and Site Records







**This Appendix contains information on the specific location of cultural resources. This information is not for publication or release to the general public. It is for planning, management and research purposes only. Information on the specific location of pre-contact and historic sites is exempt from the Freedom of Information Act and California Public Records Act.**



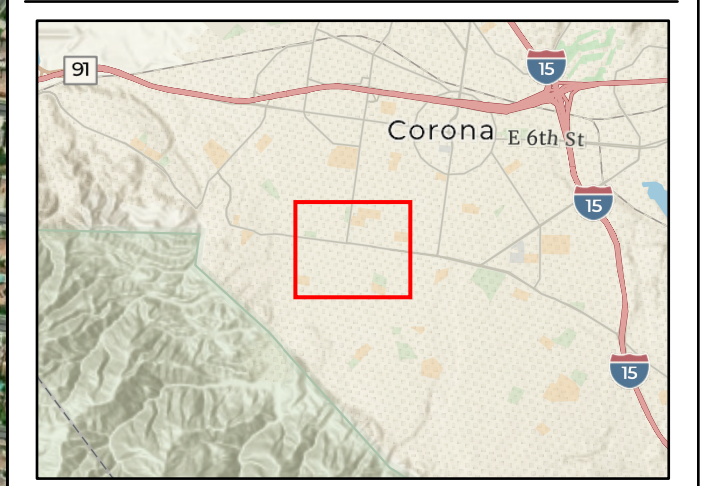
Location: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\MapS\Cultural\_Resources\Ontario Ave CRM.aprx - Resource\_Overview\_20240124 (trolelin) - 1/24/2024



**Map Contents**

-  Ontario Avenue
-  Corona Historic District
-  Oak Avenue
-  Buena Vista Avenue
-  Lincoln Avenue
-  OAW-07

Sources: ESRI, Maxar (2022)





Other Listings  
Review Code

Reviewer

Date

Page 1 of 9

\*Resource Name or #: OAW-01

**P1. Other Identifier:** 2201 S. Lincoln Avenue

**\*P2. Location:**  Not for Publication  Unrestricted

**\*a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

**\*b. USGS 7.5' Quad:** Corona South **Date:** 1967 **T04S; R07W; Section 1 S.B.B.M.**

c. Address: 2201 S. Lincoln Avenue City: Corona Zip: 92882

d. UTM: 11 S 445789 mE 3746568 mN

e. Other Locational Data: APN 113-140-001

**\*P3a. Description:**

The residence at 2201 South Lincoln Avenue (Resource OAW-01) consists of a one-story, single-family, Minimal Traditional-style house on an irregular plan. A side-gabled roof with slightly overhanging eaves tops the residence. Stucco and a small section of board-and-batten wood siding compose the exterior surfaces, along with wood and brick trim. Double-hung wood-frame windows and metal casement windows punctuate the primary northern façade, along with fixed-pane wood-frame windows on side elevations. An exterior brick chimney distinguishes the primary facade. An attached two-car garage spans the southern end of the house. The residence sits on a 0.46-acre property, and vegetation surrounding the house includes cactus trees on the front grass lawn and pine, palm, and pepper trees in the rear.

**\*P3b. Resource Attributes:** HP2. Single family property

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing



**P5b. Description of Photo:**

Front Façade  
View south, December 6, 2023

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both  
c. 1944 (RealQuest)

**\*P7. Owner and Address:**

Kiran & Swatiben Patel  
3605 Summertree Lane  
Corona, CA 92881

**\*P8. Recorded by:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

**\*P9. Date Recorded:**

December 6, 2023

**\*P10. Survey Type:**

Intensive

**\*P11. Report Citation:**

ECORP Consulting, Inc. 2023. Cultural Resources Investigation and Built Environment Evaluation for the Ontario Road Widening at Lincoln Avenue, Riverside County, California. Prepared for City of Corona

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*Resource Name or # OAW-01

B1. Historic Name: 2201 S. Lincoln Avenue  
B2. Common Name: 2201 S. Lincoln Avenue  
B3. Original Use: Single-family dwelling

B4. Present Use: Single-family dwelling

\*B5. **Architectural Style:** Minimal Traditional

\*B6. **Construction History:**

Original permits were not located for this property  
Building permit #B9505644 (1995) for asphalt reroof for on house

\*B7. **Moved?**  No  Yes  Unknown **Date:** N/A

**Original Location:** N/A

\*B8. **Related Features:** N/A

B9a. Architect: N/A

b. Builder: N/A

\*B10. **Significance: Theme:** 1940s era development  
**Period of Significance:** 1944

**Area:** Corona

**Property Type:** Single-family Dwelling

**Applicable Criteria:** N/A

The following Significance Statement provides historic contexts to support an evaluation of OAW-01 using National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and City of Corona Historic Landmark criteria. (See continuation sheet)

B11. Additional Resource Attributes: N/A

\*B12. **References:**

(See continuation sheet)

B13. Remarks: None

\*B14. **Evaluator:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

\*Date of Evaluation: January 24, 2024

(This space reserved for official comments.)



**B10. Significance (continued):**

Historic Context

**City of Corona History**

As early as 1825, brothers Bernardo and Tomás Yorba used the land encompassing the Project area for cattle grazing, calling it La Sierra, although they held no legal title. In 1846, shortly before California became part of the United States, Mexican Governor Pio Pico signed two grants for adjacent lands along the Santa Ana River, dividing La Sierra in two: Rancho La Sierra (Yorba) and Rancho La Sierra (Sepulveda). These grants, to Bernardo Yorba and Tomás Yorba's widow, Doña Vicenta Sepulveda, respectively, comprised a total of eight leagues (approximately 35,560 acres). Rancho La Sierra (Yorba) consisted of the southwestern half of the former La Sierra, and Rancho La Sierra (Sepulveda) comprised the northeastern half. The present-day city of Corona is situated on former Rancho La Sierra (Yorba) land (Gunther 1984). The Mexican Period, which began with independence from Spain in 1821, continued until the Mexican-American War of 1846-1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the Territory of California. Rapid population increase occasioned by the Gold Rush of 1849 led to statehood in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult for their owners to pay the new American taxes on their thousands of acres. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. Foreclosures and land sales eventually resulted in the transfer of most of the land grants into the hands of Anglo-Americans (Cleland 1941).

Rancho La Sierra (Yorba) was eventually surveyed and was patented at 17,787 acres on February 4, 1875. Eleven years later, in February 1886, an entrepreneur from Iowa named Robert B. Taylor formed the South Riverside Land & Water Company and purchased 11,500 acres of Rancho La Sierra (Yorba) for \$109,800. Taylor and his board of directors, composed of Des Moines and Sioux City, Iowa, investors Adolph Rimpau, A. S. Garretson, George L. Joy, and former Iowa governor Samuel Merrill, bought water rights in nearby Temescal Valley to irrigate their land, and hired Anaheim engineer H. Clay Kellogg to survey a townsite they called South Riverside. From a variety of potential plans, the board and Kellogg decided on a traditional grid of streets within a wide, circular thoroughfare, nearly one mile in diameter, called Grand Boulevard. Many lots in South Riverside were sold and the South Riverside post office was established in 1887 to serve the rapidly growing population. Grand Boulevard was soon lined with two-story mansions, schools, churches, and businesses. Most of the new residents owned or worked in the orange and lemon groves that were rapidly spreading across the acres of land surrounding the community (Freel 2011; Gunther 1984).

In 1887, just as South Riverside began to grow, the California Central Railroad Company (CCRR), a subsidiary of the Atchison, Topeka, & Santa Fe (AT&SF) Railroad, completed a line to Los Angeles from San Bernardino via Riverside, South Riverside, and Orange. In 1889, the CCRR and another AT&SF subsidiary, the California Southern Railroad Company, were merged into the Southern California Railway Company, which was purchased by the AT&SF in 1906 (Bryant 1974; Gunther 1984; Robertson 1998). The railroad tracks, which passed just north of the great circle formed by Grand Avenue, became the site of the city's industrial buildings and citrus packing houses (Freel 2011). South Riverside was nicknamed "Queen Colony" and "Circle City" by many of its early citizens, who resented that its formal name implied that it was merely a suburb of Riverside, the larger city to the north. Around 1889, residents began to agitate for a change of name. A vote was held in 1894, with fanciful names like "Lemonton," "Grevilla," "Hesperides," and "Circleville" up for choosing. The original name was retained until 1896, when on July 13, the settlement was incorporated as the City of Corona. The new name was the suggestion of Baron Harden Hickey, an adventurer, eccentric character, owner of the nearby Cerreto Ranch, and friend of the city's founder, Robert Taylor. Immediately, the name of the local railroad station was changed from South Riverside to Corona, and the South Riverside Bee newspaper was renamed the Corona Courier. The post office was changed to Corona in 1897 (Gunther 1984). By the turn of the twentieth century, the population of Corona was more than 1,400. Five thousand acres of citrus groves

covered the land surrounding the city by 1912, and the packing houses along the AT&SF tracks at the north end of town shipped more fruit than those of any other southern California city. By the 1950s, Corona was known as the "lemon capital of the world," exporting lemon juice, citric acid, lemon oil, and pectin, in addition to whole lemons, all



over the globe. The orange and lemon industries were the leading employers in the Corona area through the 1960s (Freel 2011).

After World War II, residential development began to spread from the City's center into the citrus groves, as the value of real estate exceeded the potential profits from fruit crops. By the 1970s, housing tracts had displaced so many Corona lemon and orange groves that the demand for fruit could not be met by local harvests. Sunkist closed its Corona packing houses in 1982, and other producers soon followed. Agriculture has continued to diminish in the last three decades (Freel 2011). By 1954, the population of Corona was more than 11,000. State Route 91, the Riverside Freeway, cut through the north edge of the Grand Boulevard circle in 1962, initiating a period of growth and downtown renewal that lasted through the 1970s. I-15 was completed through the east side of the City in 1989. As suburban developments such as Corona Hills, Sierra del Oro, and South Corona have grown up around the original central town in recent years, the City has become a bedroom community (Freel 2011). The population of Corona is now over 160,000 (City of Corona 2018).

### Minimal Traditional (c. 1935–1950)

The property at 2001 S. Lincoln is an example of the Minimal Traditional style, which was a nationally prevalent style that emerged during the Great Depression. Minimal Traditional homes were designed to be simplistic, economical, and able to be produced at a mass scale. The prevalence of the style was the result of federal policies. Franklin D. Roosevelt enacted the National Housing Act in 1934, creating the Federal Housing Administration (FHA). The Minimal Traditional-style house was explicitly preferred in FHA guidelines for homeowners to secure FHA-insured home loans. The style continued to be popular through World War II and the postwar housing boom due to the increased use of factory-produced materials, the ability to be quickly mass-produced and deployed, and the general rejection of excessive, material-intensive Craftsman, Victorian, or Period Revival styles. The popularity of the Minimal Traditional style faded by the mid-1950s because the effects of the Great Depression and war-time fiscal conservatism were forgotten (Architectural Resources Group 2019; California Department of Transportation (Caltrans) 2011; McAlester 2015).

The character-defining features of the Minimal Traditional style include the following:

- Small scale
- One-story or one-and-a-half stories in height
- Low- or intermediate-pitched gable roof with little to no eave overhang
- Typically features double-hung windows with either multi-pane or simulated multi-pane
- Window placement occasionally includes two windows set near the building corner
- Exterior cladding materials may include vertical and horizontal wood boards, shingles, brick veneer, and board-and-batten siding
- Minimal, limited architectural decoration, usually American Colonial Revival in character
- Roof dormers are rare, except on Cape Cod-style Minimal Traditional houses
- May have an attached or detached garage

### 2201 South Lincoln Avenue Property History

The dwelling at 2201 South Lincoln Avenue first appears in a 1948 aerial image surrounded mainly by agricultural land with a scattering of single-family homes. Aerials from the 1950s and 1960s indicate increased single-family

development sounding the property but with agricultural land to the north and south. By the 1967 aerial image, the house contains an attached garage addition to the south elevation. From 1967 to circa 1993, the building footprint remained unchanged but with increasing density north of W. Ontario Avenue. By 1994, the house featured an 8-by-30-foot addition on the west elevation of the dwelling. From 1994 through 2002, several tract developments were built both north and south of W. Ontario Avenue. The 1990s era phase of development effectively removed almost all remaining agricultural properties surrounding the dwelling at 2201 South Lincoln Avenue (NETR 2023).

### Evaluation

The residence at 2201 South Lincoln Avenue (Resource OAW-01) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### NRHP/CRHR Criterion A/1

Archival research of 2201 South Lincoln Avenue did not indicate any associations with events that have made a significant contribution to the broad patterns of history. Though the residence is reflective of the trend of 1940s-era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The residence was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local, state, or national level. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### NRHP/CRHR Criterion B/2

To be eligible under NRHP/CRHR Criterion B/2, the subject property would need to be directly associated with a person considered historically significant at the local, state, or national level. There is no indication that current residents—Kiran and Swatiben Patel—or any other former owners are people of great historical significance. In addition, directory and newspaper research did not uncover other names associated with the residence at 2201 South Lincoln Avenue. As a result, archival research failed to indicate any associations with any significant persons. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### NRHP/CRHR Criterion C/3

Built in 1944, the residence at 2201 South Lincoln Avenue represents a typical example of a Minimal Traditional-style house, which was a common housing type in California from 1935 to 1950. This Minimal Traditional dwelling is not a fully realized expression of the style, which may feature dormers, original metal casement corner windows, and a recessed main entrance. More high style and intact versions of Minimal Traditional dwellings are located throughout Corona and Riverside County. As a commonplace 1940s-era house, it does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### NRHP/CRHR Criterion D/4

The information potential for 2201 South Lincoln Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

#### Integrity

The residence at 2201 South Lincoln Avenue possesses integrity because it has not been moved. The setting around the property has changed from being mostly agricultural land in the mid-1940s to being surrounded by single-family suburban tract homes. Therefore, the change in surroundings has resulted in a lack of integrity of setting, feeling, and association. A major addition to the western side of the house that completely altered the primary northern façade and the loss of original windows and siding have resulted in a loss of integrity of design, materials, workmanship.

Page 6 of 9

\*Resource Name or # OAW-01

\*Recorded by: Andrew Bursan

\*Date: 12/24/2024

Continuation

Update

Regardless of integrity, due to lack of historical significance, 2201 South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

17.63.050 Corona Register – Landmark listing criteria.

Criterion A, 1. Though the property is greater than 50 years old, ECORP found no indication that the property is of exceptional importance.

Criterion A, 2. Though the property is reflective of the trend of 1940s era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The dwelling was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the property is reflective of the trend of 1940s era housing development in Corona, archival research failed to indicate anything significant or unique about its development history. The dwelling was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject property is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the residence at 2201 South Lincoln Avenue is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. Built in 1944, the dwelling at 2201 South Lincoln Avenue represents a typical example of a Minimal Traditional-style house, which was a common housing type in California from 1935 to 1950. This Minimal Traditional dwelling is not a fully realized expression of the style, which may feature dormers, original metal casement corner windows, and a recessed main entrance. More high style and intact versions of Minimal Traditional dwellings are located throughout Corona and Riverside County.

Criterion A, 3d. 2201 South Lincoln Avenue is a commonplace dwelling in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that 2201 South Lincoln Avenue is the work of a notable builder, designer, or architect.

Criterion A, 3f. 2201 South Lincoln Avenue represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period.

Criterion A, 3g. 2201 South Lincoln Avenue is not in a unique location.

Criterion A, 3h. 2201 South Lincoln Avenue is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that 2201 South Lincoln Avenue contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. A major addition to the western side of the house that completely altered the primary northern façade, a garage addition, and the loss of original windows and siding have resulted in a loss of integrity of design, materials, and workmanship. The setting around the property has changed from being mostly agricultural land in the mid-1940s to being completed developed with single-family suburban tract homes. Therefore, the change in surroundings has resulted in a lack of integrity of setting, feeling, and association.

Criterion C. The subject dwelling is not a reconstructed improvement.

Criterion D. The subject dwelling is not a site, improvement, or natural feature that is intended to be primarily commemorative.

**B12. References (continued):**

ARG. 2019. Architectural Style Guide: Minimal Traditional. Prepared for the City of Anaheim Planning and Building Department, July 2019. <https://www.anaheim.net/DocumentCenter/View/27509/Anaheim-ArchitecturalStyle-Guide-Minimal-Traditional>.

Caltrans. 2011. Tract Housing in California, 1945-1973: A Context for National Register Evaluation.

City of Corona. 2021. 2020–2040 General Plan - Housing Element 2021-2029. November 3, 2021

\_\_\_\_\_. 2018. History of Corona, <https://www.coronaca.gov/government/departments-divisions/library-recreation-services/library/heritage-room/history-of-corona>. Accessed December 6, 2023.

Cleland, Robert G. 1941. The Cattle on a Thousand Hills: Southern California, 1850-1870. Huntington Library, San Marino, California.

Freel, G. S. 2011. The History of Corona. Corona Public Library, Corona, California.

Gunther, J. D. 1984. Riverside County, California, Place Names: Their Origins and Their Stories. Rubidoux Printing Co., Riverside, California.

McAlister, Virginia. 2018. A Field Guide to American Houses. New York: Alfred A. Knopf.

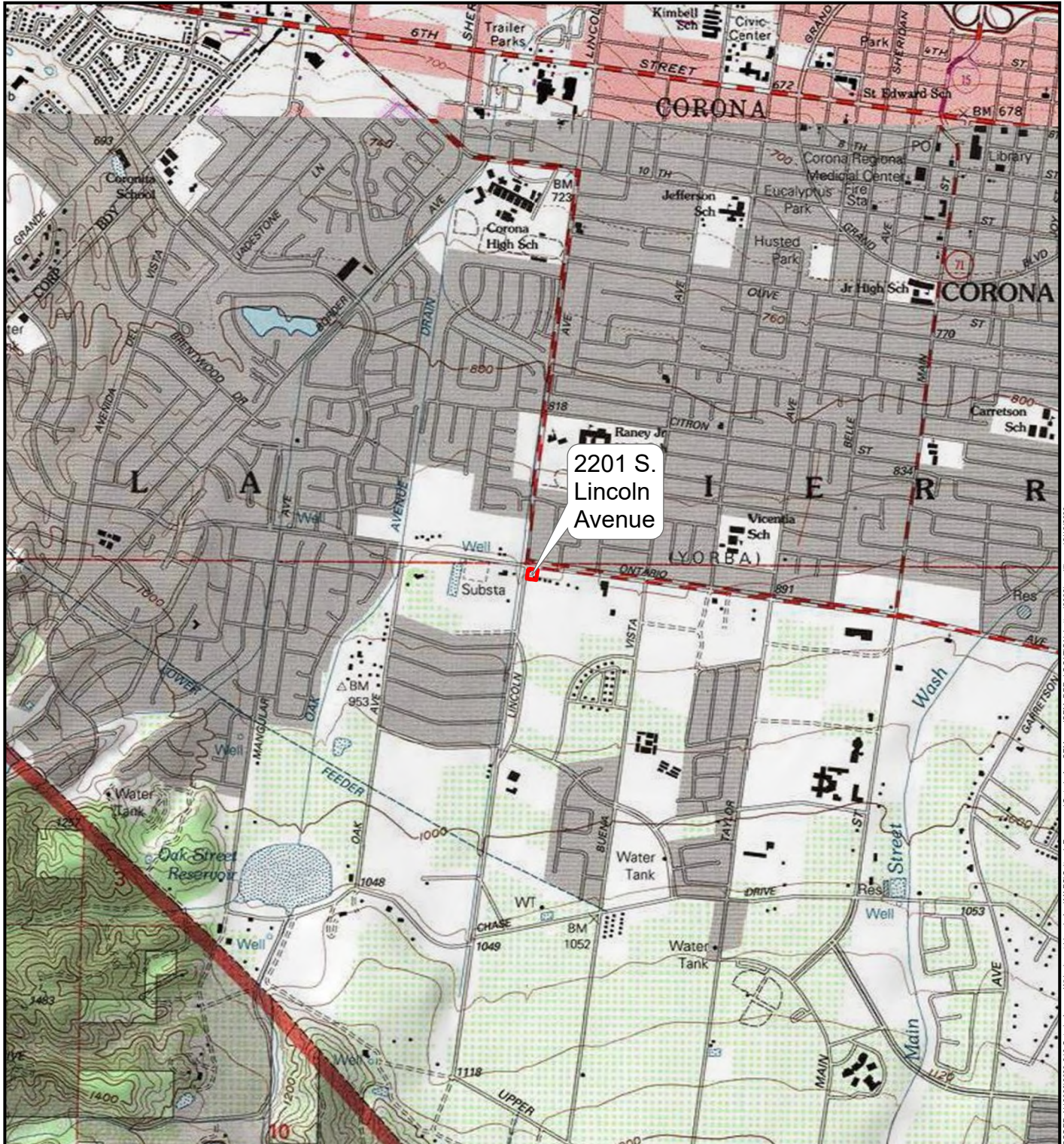
Nationwide Environmental Title Research LLC (NETR). 2023. Historic Aerial Photographs of Corona, CA dating from 1938, 1948, 1949, 1959, 1966, 1980, 1985, 1994, 1999, 2002, 2003, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020. <https://www.historicaerials.com/viewer>. Accessed December 13, 2023.

Sacramento, CA: California Department of Transportation. Accessed May 6, 2021.



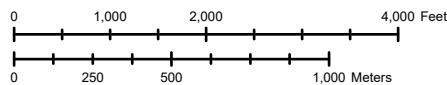
Figure 1. (View east; December 6, 2023)





DPR 523J (1/95)

\*Required Information





Other Listings  
Review Code

Reviewer

Date

Page 1 of 8

\*Resource Name or #: OV-07

**P1. Other Identifier:** West Ontario Avenue

**\*P2. Location:**  Not for Publication  Unrestricted

**\*a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

**\*b. USGS 7.5' Quad:** Corona South **Date:** 1967 **T04S; R07W;** Section 1 **S.B.B.M.**

c. Address:

City: Corona

Zip: 92882

d. UTM: 11 S 445789 mE 3746568 mN

e. Other Locational Data: N/A

**\*P3a. Description:**

West Ontario Avenue (Resource OV-07) is an approximately 5,400-foot-long, east-west-oriented segment road in Corona. It is a 70-foot-wide, five-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps and reflective paint, which includes white side-stripes and turn arrows.

**\*P3b. Resource Attributes:** HP37. Highway/trail

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing



**P5b. Description of Photo:**

Overview of West Ontario Avenue  
View west, December 12, 2023

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both  
c. 1920 (Topographic Map)

**\*P7. Owner and Address:**

Riverside County  
4040 Lemon Street  
Riverside, CA 92501

**\*P8. Recorded by:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

**\*P9. Date Recorded:**

December 6, 2023

**\*P10. Survey Type:**

Intensive

**\*P11. Report Citation:**

ECORP Consulting, Inc. 2023. Cultural Resources Investigation and Built Environment Evaluation for the Ontario Road Widening at Lincoln Avenue, Riverside County, California. Prepared for City of Corona

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

# BUILDING, STRUCTURE, AND OBJECT RECORD

\*Resource Name or # OV-07

- B1. Historic Name: West Ontario Avenue
- B2. Common Name: West Ontario Avenue
- B3. Original Use: Road
- B4. Present Use: Road

\*B5. Architectural Style: N/A

\*B6. Construction History:  
N/A

\*B7. Moved?  No  Yes  Unknown Date: N/A Original Location: N/A

\*B8. Related Features: N/A

B9a. Architect: N/A b. Builder: N/A

\*B10. Significance: Theme: Road Development Area: Corona  
Period of Significance: 1920s Property Type: Road Applicable Criteria: N/A

The following Significance Statement provides historic contexts to support an evaluation of OV-07 using National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and City of Corona Historic Landmark criteria. (See continuation sheet)

B11. Additional Resource Attributes: N/A

\*B12. References:

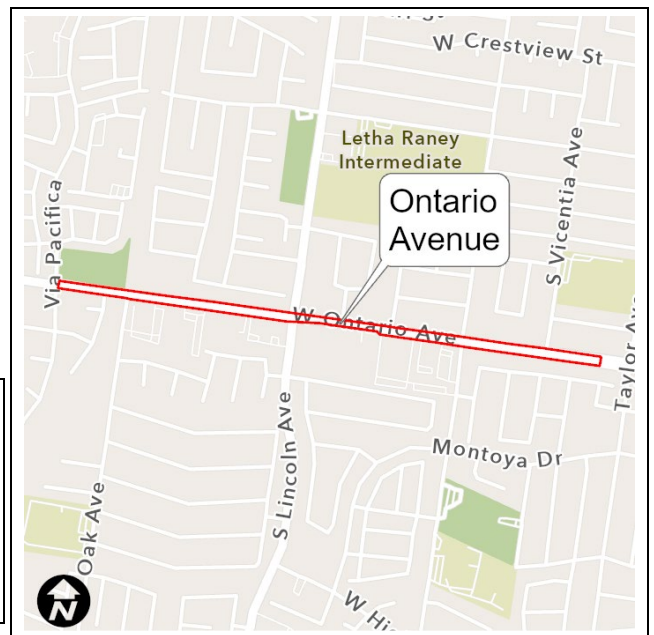
(See continuation sheet)

B13. Remarks: None

\*B14. Evaluator:  
Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

\*Date of Evaluation: December 7, 2023

(This space reserved for official comments.)



**B10. Significance (continued):**

Historic Context

**City of Corona History**

As early as 1825, brothers Bernardo and Tomás Yorba used the land encompassing the Project area for cattle grazing, calling it La Sierra, although they held no legal title. In 1846, shortly before California became part of the United States, Mexican Governor Pío Pico signed two grants for adjacent lands along the Santa Ana River, dividing La Sierra in two: Rancho La Sierra (Yorba) and Rancho La Sierra (Sepulveda). These grants, to Bernardo Yorba and Tomás Yorba's widow, Doña Vicenta Sepulveda, respectively, comprised a total of eight leagues (approximately 35,560 acres). Rancho La Sierra (Yorba) consisted of the southwestern half of the former La Sierra, and Rancho La Sierra (Sepulveda) comprised the northeastern half. The present-day city of Corona is situated on former Rancho La Sierra (Yorba) land (Gunther 1984). The Mexican Period, which began with independence from Spain in 1821, continued until the Mexican-American War of 1846-1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the Territory of California. Rapid population increase occasioned by the Gold Rush of 1849 led to statehood in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult for their owners to pay the new American taxes on their thousands of acres. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. Foreclosures and land sales eventually resulted in the transfer of most of the land grants into the hands of Anglo-Americans (Cleland 1941).

Rancho La Sierra (Yorba) was eventually surveyed and was patented at 17,787 acres on February 4, 1875. Eleven years later, in February 1886, an entrepreneur from Iowa named Robert B. Taylor formed the South Riverside Land & Water Company and purchased 11,500 acres of Rancho La Sierra (Yorba) for \$109,800. Taylor and his board of directors, composed of Des Moines and Sioux City, Iowa, investors Adolph Rimpau, A. S. Garretson, George L. Joy, and former Iowa governor Samuel Merrill, bought water rights in nearby Temescal Valley to irrigate their land, and hired Anaheim engineer H. Clay Kellogg to survey a townsite they called South Riverside. From a variety of potential plans, the board and Kellogg decided on a traditional grid of streets within a wide, circular thoroughfare, nearly one mile in diameter, called Grand Boulevard. Many lots in South Riverside were sold and the South Riverside post office was established in 1887 to serve the rapidly growing population. Grand Boulevard was soon lined with two-story mansions, schools, churches, and businesses. Most of the new residents owned or worked in the orange and lemon groves that were rapidly spreading across the acres of land surrounding the community (Freel 2011; Gunther 1984).

In 1887, just as South Riverside began to grow, the California Central Railroad Company (CCRR), a subsidiary of the Atchison, Topeka, & Santa Fe (AT&SF) Railroad, completed a line to Los Angeles from San Bernardino via Riverside, South Riverside, and Orange. In 1889, the CCRR and another AT&SF subsidiary, the California Southern Railroad Company, were merged into the Southern California Railway Company, which was purchased by the AT&SF in 1906 (Bryant 1974; Gunther 1984; Robertson 1998). The railroad tracks, which passed just north of the great circle formed by Grand Avenue, became the site of the city's industrial buildings and citrus packing houses (Freel 2011). South Riverside was nicknamed "Queen Colony" and "Circle City" by many of its early citizens, who resented that its formal name implied that it was merely a suburb of Riverside, the larger city to the north. Around 1889, residents began to agitate for a change of name. A vote was held in 1894, with fanciful names like "Lemonton," "Grevilla," "Hesperides," and "Circleville" up for choosing. The original name was retained until 1896, when on July 13, the settlement was incorporated as the City of Corona. The new name was the suggestion of Baron Harden Hickey, an adventurer, eccentric character, owner of the nearby Cerreto Ranch, and friend of the city's founder, Robert Taylor. Immediately, the name of the local railroad station was changed from South Riverside to Corona, and the *South Riverside Bee* newspaper was renamed the *Corona Courier*. The post office was changed to Corona in 1897 (Gunther 1984). By the turn of the twentieth century, the population of Corona was more than 1,400. Five thousand acres of citrus groves covered the land surrounding the city by 1912, and the packing houses along the AT&SF tracks at the north end of town shipped more fruit than those of any other southern California city. By the 1950s, Corona was known as the "lemon capital of the world," exporting lemon juice, citric acid, lemon oil, and pectin, in addition to whole lemons, all over the globe. The orange and lemon industries were the leading employers in the Corona area through the 1960s (Freel 2011).

After World War II, residential development began to spread from the City's center into the citrus groves, as the value of real estate exceeded the potential profits from fruit crops. By the 1970s, housing tracts had displaced so many Corona lemon and orange groves that the demand for fruit could not be met by local harvests. Sunkist closed its Corona packing houses in 1982, and other producers soon followed. Agriculture has continued to diminish in the last three decades (Freel 2011). By 1954, the population of Corona was more than 11,000. State Route 91, the Riverside Freeway, cut through the north edge of the Grand Boulevard circle in 1962, initiating a period of growth and downtown renewal that lasted through the 1970s. I-15 was completed through the east side of the City in 1989. As suburban developments such as Corona Hills, Sierra del Oro, and South Corona have grown up around the original central town in recent years, the City has become a bedroom community (Freel 2011). The population of Corona is now over 160,000 (City of Corona 2018).

### Roads in California

During the second half of the 19th century, a period of rapid railroad development in the United States, public roads in California and other western states became neglected and degraded. By 1900, "the nation with the greatest railway system in the world had the worst roads" (Johnson 1990:139). Interest in road building revived around the turn of the century when farmers and ranchers, many disillusioned with high railroad rates, began asking county officials for better surface roads. They were joined by millions of bicyclists who called for smoother roads in town and in the countryside. Joining forces, farmers, ranchers, and bicyclists organized local, state, and national "good roads" campaigns. In response, the federal government established the Office of Road Inquiry in the Department of Agriculture to study new road building techniques (Jackson 1998).

Dusty during summer months and muddy during the winter and spring, unpaved roads played havoc with wagons, carriages, and bicycles. Plank roads made from lumber first appeared in California during the 1850s. Gravel roads and macadam, a form of compacted gravel coated with oil, came into use during the late 19th century. Finally, after 1900, concrete roads topped by a mixture of bitumen, aggregate, and sand called asphalt became the standard modern road surface. Durable, smooth, and impervious to water, asphalt withstood winter weather, reduced vehicular wear and tear, and better facilitated drainage (Kostof 1992).

After 1910, as automobile usage surged, and as suburbanization occurred on the edges of town and cities in California and elsewhere, city planners began articulating a hierarchy of streets to distinguish residential roads, collector roads, arterial roads, and highways, each handling progressively higher volumes of traffic. Through the remainder of the twentieth century, as commercial and residential growth supplanted farms and ranches on the edges of California towns and cities, many rural county roads became adapted to suit the new suburban landscape. In many places, older two-lane rural roads became two- and four-lane suburban arterial streets lined with shopping centers and parking lots; others became two-lane collector streets lined with new residential subdivisions.

In 1936, the Federal Housing Administration (FHA), a New Deal program designed to boost mortgage lending in the United States, developed design standards for new suburban residential streets. FHA standards called for quieter streets with T-intersections, cul-de-sacs, and curvilinear patterns in an effort to slow traffic. With few exceptions, homebuilders in California and other western states after 1940 adhered to FHA standards; homebuilders also eliminated alleys behind residential properties in favor of driveways leading to street-facing garages (Kostof 1992). After 1960, homebuilders also began creating large master planned suburban developments featuring winding arterial parkways deliberately separated from residential zones to permit higher speeds.

### Roads in Corona

Roads first developed in Corona's historic core on Grand Boulevard, a circle street that is 3 miles in circumference, 1 mile in diameter, and 100-feet wide. Two principal thoroughfares, Main Street (north-south) and Sixth Street (east-west), intersect at the center of the circle. Inside the circle, a grid of pedestrian-oriented, rectangular blocks and streets create neighborhoods and small commercial nodes. Most residential neighborhoods in the historic core contain single-family and low-density multifamily homes, most of which are accessed by rear alleys (City of Corona 2021).

Residential streets outside the historic core serve typical suburban neighborhoods built after World War II that are characterized by cul-de-sacs and wide curvilinear streets. Community-serving commercial centers exist at major street intersections of the primary entries and in most neighborhoods (City of Corona 2021).



Roads within the Project Area include West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue. While Riverside County crews constructed all four roads circa 1920s, research found little indication that they shared an association with the Good Roads Movement that lasted until the late 1920s. A 1948 aerial image depicts all four roads in their current confirmation except for S. Lincoln Avenue which was realigned roughly 600 feet south of W. Ontario Avenue in the 1990s. Riverside County paved all four roads during 1970s according to aerial images. From at least the 1940s to the 1960s, these roads served the surrounding agriculture activities but by 1970s and 1980s suburban single-family neighborhoods developed adjacent to these roads (City of Corona 2021; National Environmental Title Research LLC [NETR] 2023).

### Evaluation

West Ontario Avenue (Resource OV-07) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### NRHP/CRHR Criterion A/1

West Ontario Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County, as well as access to rural properties in southern Corona. Furthermore, the construction of West Ontario Avenue did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that West Ontario Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### NRHP/CRHR Criterion B/2

Riverside County crews built and maintained West Ontario Avenue. However, there is nothing in the archival record to suggest that it is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### NRHP/CRHR Criterion C/3

As a conventional five-lane suburban road, indistinguishable from multiple similar roads in Riverside County, West Ontario Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### NRHP/CRHR Criterion D/4

The information potential of West Ontario Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

#### Integrity

Though West Ontario Avenue possesses integrity of location, the road has gone from a circa 1920s two-lane dirt road to a five-lane paved road. In addition, the setting has completely changed from primarily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association. Regardless of integrity, due to lack of historical significance, West Ontario Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

17.63.050 Corona Register – Landmark listing criteria.

This section evaluates the resource against the Corona Register's Landmark listing criteria (Section 1.3.4)

Criterion A, 1. Though the subject road is greater than 50 years old, research found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar examples exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional five-lane suburban road, indistinguishable from multiple similar roads in Riverside County, West Ontario Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials, or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though West Ontario Avenue possesses integrity of location, the road has gone from a circa 1920s two-lane dirt road to a five-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, West Ontario Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

(C) ) A reconstructed improvement shall be eligible if the reconstruction is historically accurate, the improvement is presented in a dignified manner as part of a restoration master plan and no other original improvement survives that has the same association.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

Page 7 of 8

\*Resource OV-07

\*Recorded by: Andrew Bursan

\*Date: 1/24/2024

Continuation

Update

**B12. References (continued):**

City of Corona. 2021. 2020–2040 General Plan - Housing Element 2021-2029. November 3, 2021

\_\_\_\_\_. 2018. History of Corona, <https://www.coronaca.gov/government/departments-divisions/library-recreation-services/library/heritage-room/history-of-corona>. Accessed December 6, 2023.

Cleland, Robert G. 1941. The Cattle on a Thousand Hills: Southern California, 1850-1870. Huntington Library, San Marino, California.

Freel, G. S. 2011. The History of Corona. Corona Public Library, Corona, California.

Gunther, J. D. 1984. Riverside County, California, Place Names: Their Origins and Their Stories. Rubidoux Printing Co., Riverside, California.

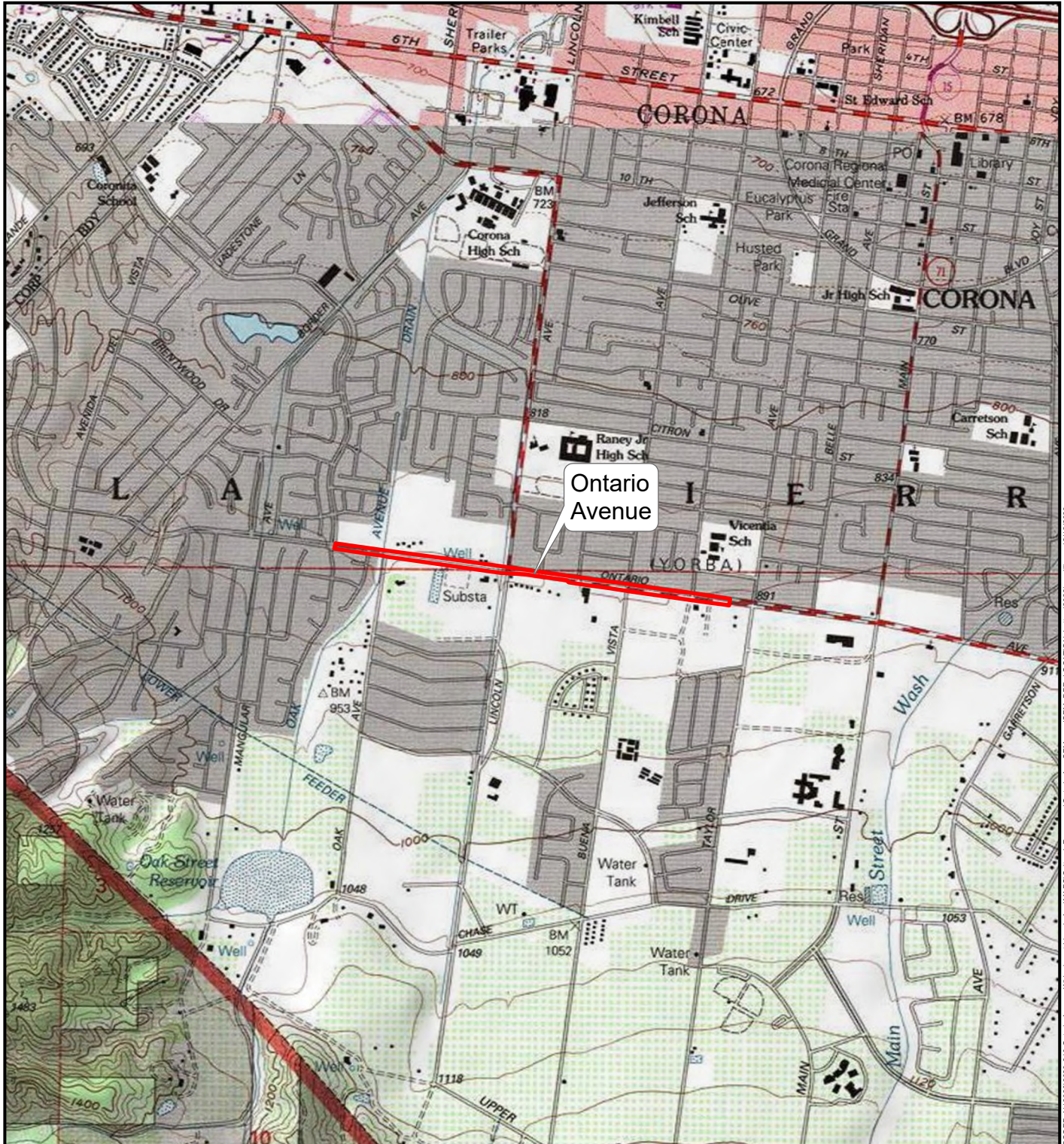
Jackson, W. Turrentine. 1998. Roads and Highways. In The New Encyclopedia of the American West, edited by Howard R. Lamar. Yale University Press, New Haven, CT.

Johnson, Hildegard Binder. 1990. Towards a National Landscape. In The Making of the American Landscape, edited by Michael P. Conzen. Routledge, New York. Koerper, H. C., P. Langenwalter II, A. Schroth. 1991. Early Holocene Adaptations and the Transition Problem: Evidence from the Allan O. Kelly Site, Agua Hedionda Lagoon. In Hunter-Gatherers of Early Holocene Coastal California, edited by J. M. Erlandson and R. H. Colten, pp. 81-88. Perspectives in California Archaeology, Volume 1. Institute of Archaeology, University of California, Los Angeles.

Kostof, Spiro. 1992. The City Assembled: The Elements of Urban Form Through History. Bulfinch Press, Boston, MA.

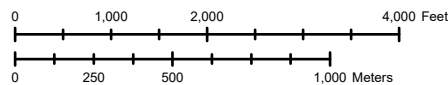
Monkkonen, Eric H. 1988. America Becomes Urban: The Development of U.S. Cities & Towns, 1780-1980. University of California Press, Berkeley, CA.





DPR 523J (1/95)

\*Required Information





Other Listings  
Review Code

Reviewer

Date

Page 1 of 8

\*Resource Name or #: OV-08

**P1. Other Identifier:** South Lincoln Avenue

**\*P2. Location:**  Not for Publication  Unrestricted

**\*a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

**\*b. USGS 7.5' Quad:** Corona South **Date:** 1967 **T04S; R07W; Section 1 S.B.B.M.**

c. Address:

City: Corona

Zip: 92882

d. UTM: 11 S 445789 mE 3746568 mN

e. Other Locational Data: N/A

**\*P3a. Description:**

South Lincoln Avenue (Resource OV-08) is an approximately 1,300-foot-long, north-south-oriented segment road in Corona. It is an 80-foot-wide, four-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s; a c. 1980s section extends south of West Ontario Avenue. The western and eastern sides of the road include concrete gutters and bike lanes. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.

**\*P3b. Resource Attributes:** HP37. Highway/trail

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing



**P5b. Description of Photo:**

Overview of Lincoln Avenue  
View south, December 6, 2023

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both  
c. 1920 (Topographic Map)

**\*P7. Owner and Address:**

Riverside County  
4040 Lemon Street  
Riverside, CA 92501

**\*P8. Recorded by:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

**\*P9. Date Recorded:**

December 6, 2023

**\*P10. Survey Type:**

Intensive

**\*P11. Report Citation:**

ECORP Consulting, Inc. 2023. Cultural Resources Investigation and Built Environment Evaluation for the Ontario Road Widening at Lincoln Avenue, Riverside County, California. Prepared for City of Corona

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):



**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*Resource Name or # OV-08

- B1. Historic Name: Lincoln Avenue
- B2. Common Name: Lincoln Avenue
- B3. Original Use: Road
- B4. Present Use: Road

\*B5. Architectural Style: N/A

\*B6. Construction History:  
N/A

\*B7. Moved?  No  Yes  Unknown Date: N/A Original Location: N/A

\*B8. Related Features: N/A

B9a. Architect: N/A b. Builder: N/A

\*B10. Significance: Theme: Road Area: Corona  
Period of Significance: 1920s Property Type: Road Applicable Criteria: N/A

The following Significance Statement provides historic contexts to support an evaluation of OV-08 using National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and City of Corona Historic Landmark criteria. (See continuation sheet)

B11. Additional Resource Attributes: N/A

\*B12. References:

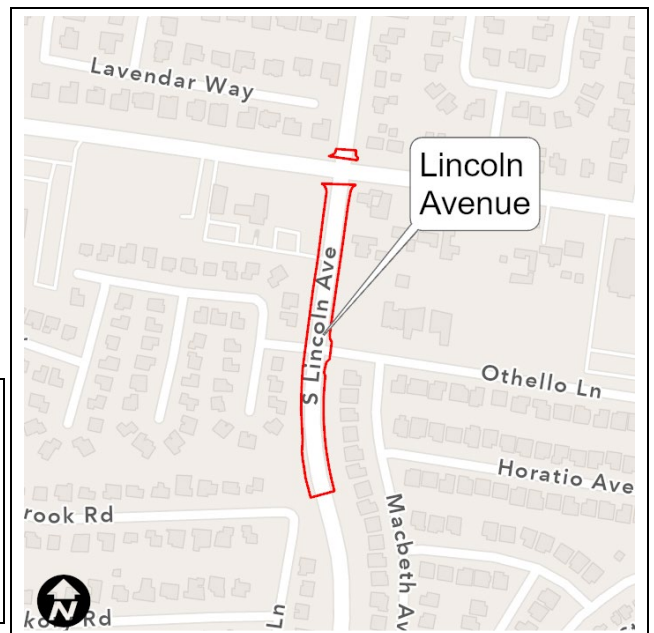
(See continuation sheet)

B13. Remarks: None

\*B14. Evaluator:  
Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

\*Date of Evaluation: December 7, 2023

(This space reserved for official comments.)



**B10. Significance (continued):**

Historic Context

**City of Corona History**

As early as 1825, brothers Bernardo and Tomás Yorba used the land encompassing the Project area for cattle grazing, calling it La Sierra, although they held no legal title. In 1846, shortly before California became part of the United States, Mexican Governor Pío Pico signed two grants for adjacent lands along the Santa Ana River, dividing La Sierra in two: Rancho La Sierra (Yorba) and Rancho La Sierra (Sepulveda). These grants, to Bernardo Yorba and Tomás Yorba's widow, Doña Vicenta Sepulveda, respectively, comprised a total of eight leagues (approximately 35,560 acres). Rancho La Sierra (Yorba) consisted of the southwestern half of the former La Sierra, and Rancho La Sierra (Sepulveda) comprised the northeastern half. The present-day city of Corona is situated on former Rancho La Sierra (Yorba) land (Gunther 1984). The Mexican Period, which began with independence from Spain in 1821, continued until the Mexican-American War of 1846-1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the Territory of California. Rapid population increase occasioned by the Gold Rush of 1849 led to statehood in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult for their owners to pay the new American taxes on their thousands of acres. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. Foreclosures and land sales eventually resulted in the transfer of most of the land grants into the hands of Anglo-Americans (Cleland 1941).

Rancho La Sierra (Yorba) was eventually surveyed and was patented at 17,787 acres on February 4, 1875. Eleven years later, in February 1886, an entrepreneur from Iowa named Robert B. Taylor formed the South Riverside Land & Water Company and purchased 11,500 acres of Rancho La Sierra (Yorba) for \$109,800. Taylor and his board of directors, composed of Des Moines and Sioux City, Iowa, investors Adolph Rimpau, A. S. Garretson, George L. Joy, and former Iowa governor Samuel Merrill, bought water rights in nearby Temescal Valley to irrigate their land, and hired Anaheim engineer H. Clay Kellogg to survey a townsite they called South Riverside. From a variety of potential plans, the board and Kellogg decided on a traditional grid of streets within a wide, circular thoroughfare, nearly one mile in diameter, called Grand Boulevard. Many lots in South Riverside were sold and the South Riverside post office was established in 1887 to serve the rapidly growing population. Grand Boulevard was soon lined with two-story mansions, schools, churches, and businesses. Most of the new residents owned or worked in the orange and lemon groves that were rapidly spreading across the acres of land surrounding the community (Freel 2011; Gunther 1984).

In 1887, just as South Riverside began to grow, the California Central Railroad Company (CCRR), a subsidiary of the Atchison, Topeka, & Santa Fe (AT&SF) Railroad, completed a line to Los Angeles from San Bernardino via Riverside, South Riverside, and Orange. In 1889, the CCRR and another AT&SF subsidiary, the California Southern Railroad Company, were merged into the Southern California Railway Company, which was purchased by the AT&SF in 1906 (Bryant 1974; Gunther 1984; Robertson 1998). The railroad tracks, which passed just north of the great circle formed by Grand Avenue, became the site of the city's industrial buildings and citrus packing houses (Freel 2011). South Riverside was nicknamed "Queen Colony" and "Circle City" by many of its early citizens, who resented that its formal name implied that it was merely a suburb of Riverside, the larger city to the north. Around 1889, residents began to agitate for a change of name. A vote was held in 1894, with fanciful names like "Lemonton," "Grevilla," "Hesperides," and "Circleville" up for choosing. The original name was retained until 1896, when on July 13, the settlement was incorporated as the City of Corona. The new name was the suggestion of Baron Harden Hickey, an adventurer, eccentric character, owner of the nearby Cerreto Ranch, and friend of the city's founder, Robert Taylor. Immediately, the name of the local railroad station was changed from South Riverside to Corona, and the *South Riverside Bee* newspaper was renamed the *Corona Courier*. The post office was changed to Corona in 1897 (Gunther 1984). By the turn of the twentieth century, the population of Corona was more than 1,400. Five thousand acres of citrus groves covered the land surrounding the city by 1912, and the packing houses along the AT&SF tracks at the north end of town shipped more fruit than those of any other southern California city. By the 1950s, Corona was known as the "lemon capital of the world," exporting lemon juice, citric acid, lemon oil, and pectin, in addition to whole lemons, all over the globe. The orange and lemon industries were the leading employers in the Corona area through the 1960s (Freel 2011).

After World War II, residential development began to spread from the City's center into the citrus groves, as the value of real estate exceeded the potential profits from fruit crops. By the 1970s, housing tracts had displaced so many Corona lemon and orange groves that the demand for fruit could not be met by local harvests. Sunkist closed its Corona packing houses in 1982, and other producers soon followed. Agriculture has continued to diminish in the last three decades (Freel 2011). By 1954, the population of Corona was more than 11,000. State Route 91, the Riverside Freeway, cut through the north edge of the Grand Boulevard circle in 1962, initiating a period of growth and downtown renewal that lasted through the 1970s. I-15 was completed through the east side of the City in 1989. As suburban developments such as Corona Hills, Sierra del Oro, and South Corona have grown up around the original central town in recent years, the City has become a bedroom community (Freel 2011). The population of Corona is now over 160,000 (City of Corona 2018).

### Roads in California

During the second half of the 19th century, a period of rapid railroad development in the United States, public roads in California and other western states became neglected and degraded. By 1900, "the nation with the greatest railway system in the world had the worst roads" (Johnson 1990:139). Interest in road building revived around the turn of the century when farmers and ranchers, many disillusioned with high railroad rates, began asking county officials for better surface roads. They were joined by millions of bicyclists who called for smoother roads in town and in the countryside. Joining forces, farmers, ranchers, and bicyclists organized local, state, and national "good roads" campaigns. In response, the federal government established the Office of Road Inquiry in the Department of Agriculture to study new road building techniques (Jackson 1998).

Dusty during summer months and muddy during the winter and spring, unpaved roads played havoc with wagons, carriages, and bicycles. Plank roads made from lumber first appeared in California during the 1850s. Gravel roads and macadam, a form of compacted gravel coated with oil, came into use during the late 19th century. Finally, after 1900, concrete roads topped by a mixture of bitumen, aggregate, and sand called asphalt became the standard modern road surface. Durable, smooth, and impervious to water, asphalt withstood winter weather, reduced vehicular wear and tear, and better facilitated drainage (Kostof 1992).

After 1910, as automobile usage surged, and as suburbanization occurred on the edges of town and cities in California and elsewhere, city planners began articulating a hierarchy of streets to distinguish residential roads, collector roads, arterial roads, and highways, each handling progressively higher volumes of traffic. Through the remainder of the twentieth century, as commercial and residential growth supplanted farms and ranches on the edges of California towns and cities, many rural county roads became adapted to suit the new suburban landscape. In many places, older two-lane rural roads became two- and four-lane suburban arterial streets lined with shopping centers and parking lots; others became two-lane collector streets lined with new residential subdivisions.

In 1936, the Federal Housing Administration (FHA), a New Deal program designed to boost mortgage lending in the United States, developed design standards for new suburban residential streets. FHA standards called for quieter streets with T-intersections, cul-de-sacs, and curvilinear patterns in an effort to slow traffic. With few exceptions, homebuilders in California and other western states after 1940 adhered to FHA standards; homebuilders also eliminated alleys behind residential properties in favor of driveways leading to street-facing garages (Kostof 1992). After 1960, homebuilders also began creating large master planned suburban developments featuring winding arterial parkways deliberately separated from residential zones to permit higher speeds.

### Roads in Corona

Roads first developed in Corona's historic core on Grand Boulevard, a circle street that is 3 miles in circumference, 1 mile in diameter, and 100-feet wide. Two principal thoroughfares, Main Street (north-south) and Sixth Street (east-west), intersect at the center of the circle. Inside the circle, a grid of pedestrian-oriented, rectangular blocks and streets create neighborhoods and small commercial nodes. Most residential neighborhoods in the historic core contain single-family and low-density multifamily homes, most of which are accessed by rear alleys (City of Corona 2021).

Residential streets outside the historic core serve typical suburban neighborhoods built after World War II that are characterized by cul-de-sacs and wide curvilinear streets. Community-serving commercial centers exist at major street intersections of the primary entries and in most neighborhoods (City of Corona 2021).

Roads within the Project Area include West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue. While Riverside County crews constructed all four roads circa 1920s, research found little indication that they shared an association with the Good Roads Movement that lasted until the late 1920s. A 1948 aerial image depicts all four roads in their current confirmation except for S. Lincoln Avenue which was realigned roughly 600 feet south of W. Ontario Avenue in the 1990s. Riverside County paved all four roads during 1970s according to aerial images. From at least the 1940s to the 1960s, these roads served the surrounding agriculture activities but by 1970s and 1980s suburban single-family neighborhoods developed adjacent to these roads (City of Corona 2021; National Environmental Title Research LLC [NETR] 2023).

### Evaluation

South Lincoln Avenue (Resource OV-08) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

South Lincoln Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of South Lincoln Avenue did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that South Lincoln Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained South Lincoln Avenue. However, there is nothing in the archival record to suggest that it is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional four-lane suburban road, indistinguishable from multiple similar roads in Riverside County, South Lincoln Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### *NRHP/CRHR Criterion D/4*

The information potential of South Lincoln Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

#### *Integrity*

Though South Lincoln Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a four-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

17.63.050 Corona Register – Landmark listing criteria.

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional four-lane suburban road, indistinguishable from multiple similar roads in Riverside County, South Lincoln Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though South Lincoln Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a four-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, South Lincoln Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

## B12. References (continued):

City of Corona. 2021. 2020–2040 General Plan - Housing Element 2021-2029. November 3, 2021

\_\_\_\_\_. 2018. History of Corona, <https://www.coronaca.gov/government/departments-divisions/library-recreation-services/library/heritage-room/history-of-corona>. Accessed December 6, 2023.

Cleland, Robert G. 1941. *The Cattle on a Thousand Hills: Southern California, 1850-1870*. Huntington Library, San Marino, California.



Page 7 of 8

\*Resource Name or # OV-08

\*Recorded by: Andrew Bursan

\*Date: 1/24/2024

Continuation

Update

Freel, G. S. 2011. The History of Corona. Corona Public Library, Corona, California.

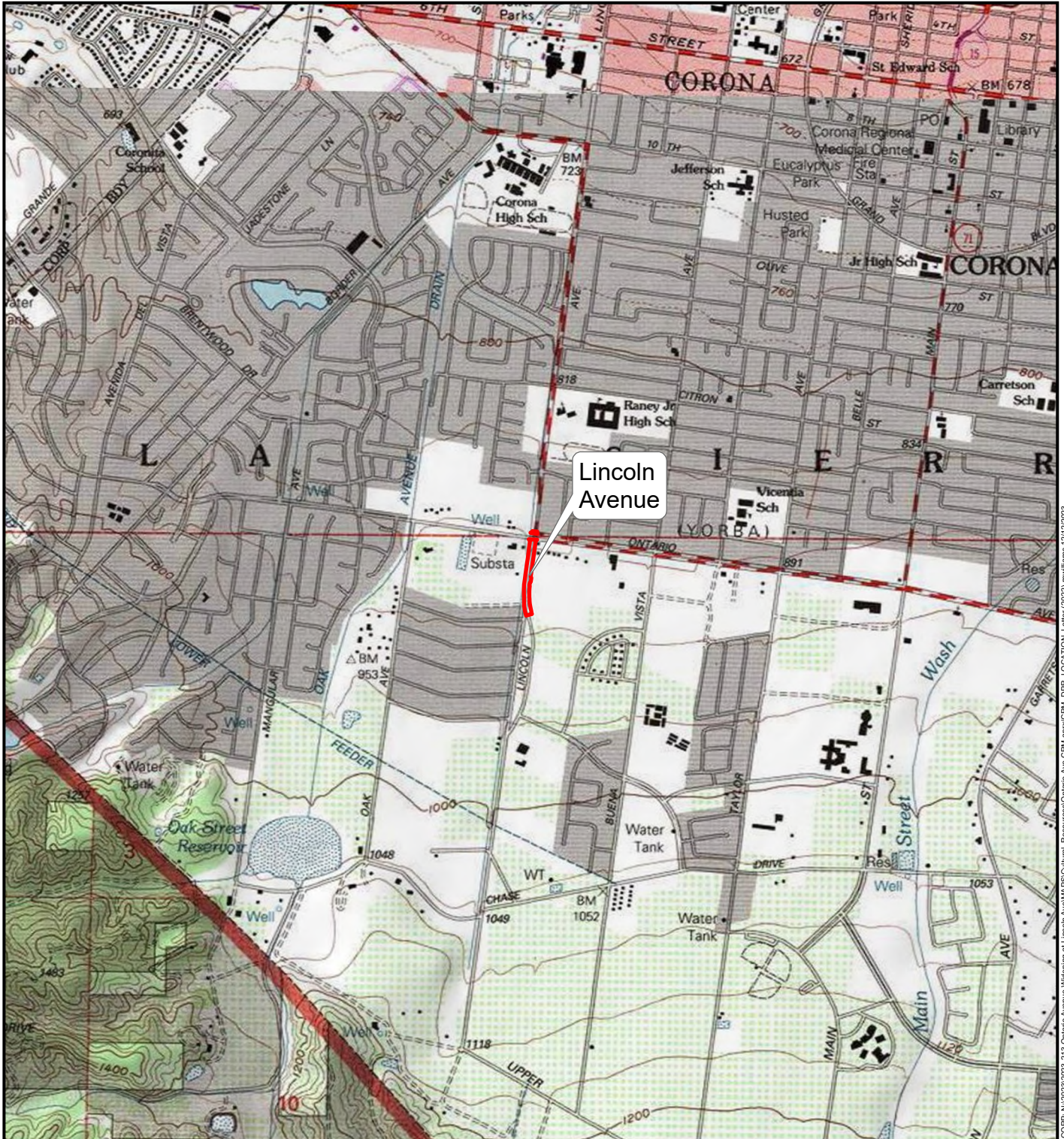
Gunther, J. D. 1984. Riverside County, California, Place Names: Their Origins and Their Stories. Rubidoux Printing Co., Riverside, California.

Jackson, W. Turrentine. 1998. Roads and Highways. In The New Encyclopedia of the American West, edited by Howard R. Lamar. Yale University Press, New Haven, CT.

Johnson, Hildegard Binder. 1990. Towards a National Landscape. In The Making of the American Landscape, edited by Michael P. Conzen. Routledge, New York. Koerper, H. C., P. Langenwaller II, A. Schroth. 1991. Early Holocene Adaptations and the Transition Problem: Evidence from the Allan O. Kelly Site, Agua Hedionda Lagoon. In Hunter-Gatherers of Early Holocene Coastal California, edited by J. M. Erlandson and R. H. Colten, pp. 81-88. Perspectives in California Archaeology, Volume 1. Institute of Archaeology, University of California, Los Angeles.

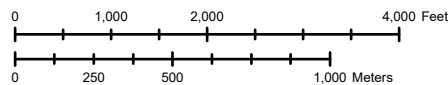
Kostof, Spiro. 1992. The City Assembled: The Elements of Urban Form Through History. Bulfinch Press, Boston, MA.

Monkkonen, Eric H. 1988. America Becomes Urban: The Development of U.S. Cities & Towns, 1780-1980. University of California Press, Berkeley, CA.



DPR 523J (1/95)

\*Required Information





Other Listings  
Review Code

Reviewer

Date

Page 1 of 8

\*Resource Name or #: OV-09

**P1. Other Identifier:** Oak Avenue

**\*P2. Location:**  Not for Publication  Unrestricted

**\*a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

**\*b. USGS 7.5' Quad:** Corona South **Date:** 1967 **T04S; R07W; Section 0 S.B.B.M.**

c. Address:

City: Corona

Zip: 92882

d. UTM: 11 S 445789 mE 3746568 mN

e. Other Locational Data: N/A

**\*P3a. Description:**

Oak Avenue (Resource OV-09) is an approximately 170-foot-long, north-south-oriented segment road in Corona. It is a 50-foot-wide, two-lane section line road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.

**\*P3b. Resource Attributes:** HP37. Highway/trail

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing



**P5b. Description of Photo:**

Overview of Oak Avenue  
View southwest, December 6,  
2023

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both  
c. 1920 (Topographic Map)

**\*P7. Owner and Address:**

Riverside County  
4040 Lemon Street  
Riverside, CA 92501

**\*P8. Recorded by:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

**\*P9. Date Recorded:**

December 6, 2023

**\*P10. Survey Type:**

Intensive

**\*P11. Report Citation:**

ECORP Consulting, Inc. 2023. Cultural Resources Investigation and Built Environment Evaluation for the Ontario Road Widening at Lincoln Avenue, Riverside County, California. Prepared for City of Corona

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 8

\*NRHP Status Code 6Z

\*Resource Name or # OV-09

B1. Historic Name: Oak Avenue  
B2. Common Name: Oak Avenue  
B3. Original Use: Road

B4. Present Use: Road

\*B5. Architectural Style: N/A

\*B6. Construction History:  
N/A

\*B7. Moved?  No  Yes  Unknown Date: N/A

Original Location: N/A

\*B8. Related Features: N/A

B9a. Architect: N/A

b. Builder: N/A

\*B10. Significance: Theme: Road  
Period of Significance: 1920s

Area: Corona  
Property Type: Road

Applicable Criteria: N/A

The following Significance Statement provides historic contexts to support an evaluation of OV-09 using National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), and City of Corona Historic Landmark criteria. (See continuation sheet)

B11. Additional Resource Attributes: N/A

\*B12. References:

(See continuation sheet)

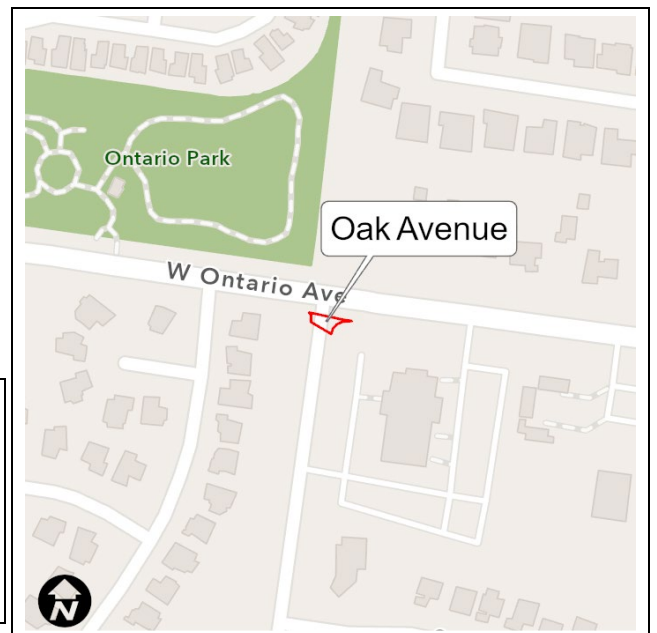
B13. Remarks: None

\*B14. Evaluator:

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

\*Date of Evaluation: December 7, 2023

(This space reserved for official comments.)



**B10. Significance (continued):**

Historic Context

**City of Corona History**

As early as 1825, brothers Bernardo and Tomás Yorba used the land encompassing the Project area for cattle grazing, calling it La Sierra, although they held no legal title. In 1846, shortly before California became part of the United States, Mexican Governor Pío Pico signed two grants for adjacent lands along the Santa Ana River, dividing La Sierra in two: Rancho La Sierra (Yorba) and Rancho La Sierra (Sepulveda). These grants, to Bernardo Yorba and Tomás Yorba's widow, Doña Vicenta Sepulveda, respectively, comprised a total of eight leagues (approximately 35,560 acres). Rancho La Sierra (Yorba) consisted of the southwestern half of the former La Sierra, and Rancho La Sierra (Sepulveda) comprised the northeastern half. The present-day city of Corona is situated on former Rancho La Sierra (Yorba) land (Gunther 1984). The Mexican Period, which began with independence from Spain in 1821, continued until the Mexican-American War of 1846-1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the Territory of California. Rapid population increase occasioned by the Gold Rush of 1849 led to statehood in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult for their owners to pay the new American taxes on their thousands of acres. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. Foreclosures and land sales eventually resulted in the transfer of most of the land grants into the hands of Anglo-Americans (Cleland 1941).

Rancho La Sierra (Yorba) was eventually surveyed and was patented at 17,787 acres on February 4, 1875. Eleven years later, in February 1886, an entrepreneur from Iowa named Robert B. Taylor formed the South Riverside Land & Water Company and purchased 11,500 acres of Rancho La Sierra (Yorba) for \$109,800. Taylor and his board of directors, composed of Des Moines and Sioux City, Iowa, investors Adolph Rimpau, A. S. Garretson, George L. Joy, and former Iowa governor Samuel Merrill, bought water rights in nearby Temescal Valley to irrigate their land, and hired Anaheim engineer H. Clay Kellogg to survey a townsite they called South Riverside. From a variety of potential plans, the board and Kellogg decided on a traditional grid of streets within a wide, circular thoroughfare, nearly one mile in diameter, called Grand Boulevard. Many lots in South Riverside were sold and the South Riverside post office was established in 1887 to serve the rapidly growing population. Grand Boulevard was soon lined with two-story mansions, schools, churches, and businesses. Most of the new residents owned or worked in the orange and lemon groves that were rapidly spreading across the acres of land surrounding the community (Freel 2011; Gunther 1984).

In 1887, just as South Riverside began to grow, the California Central Railroad Company (CCRR), a subsidiary of the Atchison, Topeka, & Santa Fe (AT&SF) Railroad, completed a line to Los Angeles from San Bernardino via Riverside, South Riverside, and Orange. In 1889, the CCRR and another AT&SF subsidiary, the California Southern Railroad Company, were merged into the Southern California Railway Company, which was purchased by the AT&SF in 1906 (Bryant 1974; Gunther 1984; Robertson 1998). The railroad tracks, which passed just north of the great circle formed by Grand Avenue, became the site of the city's industrial buildings and citrus packing houses (Freel 2011). South Riverside was nicknamed "Queen Colony" and "Circle City" by many of its early citizens, who resented that its formal name implied that it was merely a suburb of Riverside, the larger city to the north. Around 1889, residents began to agitate for a change of name. A vote was held in 1894, with fanciful names like "Lemonton," "Grevilla," "Hesperides," and "Circleville" up for choosing. The original name was retained until 1896, when on July 13, the settlement was incorporated as the City of Corona. The new name was the suggestion of Baron Harden Hickey, an adventurer, eccentric character, owner of the nearby Cerreto Ranch, and friend of the city's founder, Robert Taylor. Immediately, the name of the local railroad station was changed from South Riverside to Corona, and the *South Riverside Bee* newspaper was renamed the *Corona Courier*. The post office was changed to Corona in 1897 (Gunther 1984). By the turn of the twentieth century, the population of Corona was more than 1,400. Five thousand acres of citrus groves covered the land surrounding the city by 1912, and the packing houses along the AT&SF tracks at the north end of town shipped more fruit than those of any other southern California city. By the 1950s, Corona was known as the "lemon capital of the world," exporting lemon juice, citric acid, lemon oil, and pectin, in addition to whole lemons, all over the globe. The orange and lemon industries were the leading employers in the Corona area through the 1960s (Freel 2011).



After World War II, residential development began to spread from the City's center into the citrus groves, as the value of real estate exceeded the potential profits from fruit crops. By the 1970s, housing tracts had displaced so many Corona lemon and orange groves that the demand for fruit could not be met by local harvests. Sunkist closed its Corona packing houses in 1982, and other producers soon followed. Agriculture has continued to diminish in the last three decades (Freel 2011). By 1954, the population of Corona was more than 11,000. State Route 91, the Riverside Freeway, cut through the north edge of the Grand Boulevard circle in 1962, initiating a period of growth and downtown renewal that lasted through the 1970s. I-15 was completed through the east side of the City in 1989. As suburban developments such as Corona Hills, Sierra del Oro, and South Corona have grown up around the original central town in recent years, the City has become a bedroom community (Freel 2011). The population of Corona is now over 160,000 (City of Corona 2018).

### Roads in California

During the second half of the 19th century, a period of rapid railroad development in the United States, public roads in California and other western states became neglected and degraded. By 1900, "the nation with the greatest railway system in the world had the worst roads" (Johnson 1990:139). Interest in road building revived around the turn of the century when farmers and ranchers, many disillusioned with high railroad rates, began asking county officials for better surface roads. They were joined by millions of bicyclists who called for smoother roads in town and in the countryside. Joining forces, farmers, ranchers, and bicyclists organized local, state, and national "good roads" campaigns. In response, the federal government established the Office of Road Inquiry in the Department of Agriculture to study new road building techniques (Jackson 1998).

Dusty during summer months and muddy during the winter and spring, unpaved roads played havoc with wagons, carriages, and bicycles. Plank roads made from lumber first appeared in California during the 1850s. Gravel roads and macadam, a form of compacted gravel coated with oil, came into use during the late 19th century. Finally, after 1900, concrete roads topped by a mixture of bitumen, aggregate, and sand called asphalt became the standard modern road surface. Durable, smooth, and impervious to water, asphalt withstood winter weather, reduced vehicular wear and tear, and better facilitated drainage (Kostof 1992).

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In 1936, the Federal Housing Administration (FHA), a New Deal program designed to boost mortgage lending in the United States, developed design standards for new suburban residential streets. FHA standards called for quieter streets with T-intersections, cul-de-sacs, and curvilinear patterns in an effort to slow traffic. With few exceptions, homebuilders in California and other western states after 1940 adhered to FHA standards; homebuilders also eliminated alleys behind residential properties in favor driveways leading to street-facing garages (Kostof 1992). After 1960, homebuilders also began creating large master planned suburban developments featuring winding arterial parkways deliberately separated from residential zones to permit higher speeds.

### Roads in Corona

Roads first developed in Corona's historic core on Grand Boulevard, a circle street that is 3 miles in circumference, 1 mile in diameter, and 100-feet wide. Two principal thoroughfares, Main Street (north-south) and Sixth Street (east-west), intersect at the center of the circle. Inside the circle, a grid of pedestrian-oriented, rectangular blocks and streets create neighborhoods and small commercial nodes. Most residential neighborhoods in the historic core contain single-family and low-density multifamily homes, most of which are accessed by rear alleys (City of Corona 2021).

Residential streets outside the historic core serve typical suburban neighborhoods built after World War II that are characterized by cul-de-sacs and wide curvilinear streets. Community-serving commercial centers exist at major street intersections of the primary entries and in most neighborhoods (City of Corona 2021).

Roads within the Project Area include West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue. While Riverside County crews constructed all four roads circa 1920s, research found little indication that they shared an association with the Good Roads Movement that lasted until the late 1920s. A 1948 aerial image depicts all four roads in their current confirmation except for S. Lincoln Avenue which was realigned roughly 600 feet south of W. Ontario Avenue in the 1990s. Riverside County paved all four roads during 1970s according to aerial images. From at least the 1940s to the 1960s, these roads served the surrounding agriculture activities but by 1970s and 1980s suburban single-family neighborhoods developed adjacent to these roads (City of Corona 2021; National Environmental Title Research LLC [NETR] 2023).

### Evaluation

Oak Avenue (Resource OV-09) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

Oak Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of Oak Avenue also did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that Oak Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained Oak Avenue. However, there is nothing in the archival record to suggest that Oak Avenue is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional two-lane suburban section line road, indistinguishable from multiple similar roads in Riverside County, Oak Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### *NRHP/CRHR Criterion D/4*

The information potential of Oak Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

#### *Integrity*

Though Oak Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association. Regardless of integrity, due to lack of historical significance, Oak Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

17.63.050 Corona Register – Landmark listing criteria.

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional two-lane suburban road, indistinguishable from multiple similar roads in Riverside County, Oak Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials, or craftsmanship of a particular historic period.

Criterion A, 3g. The subject road is not in a unique location.

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though Oak Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Oak Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

**B12. References (continued):**

City of Corona. 2021. 2020–2040 General Plan - Housing Element 2021-2029. November 3, 2021

\_\_\_\_\_. 2018. History of Corona, <https://www.coronaca.gov/government/departments-divisions/library-recreation-services/library/heritage-room/history-of-corona>. Accessed December 6, 2023.

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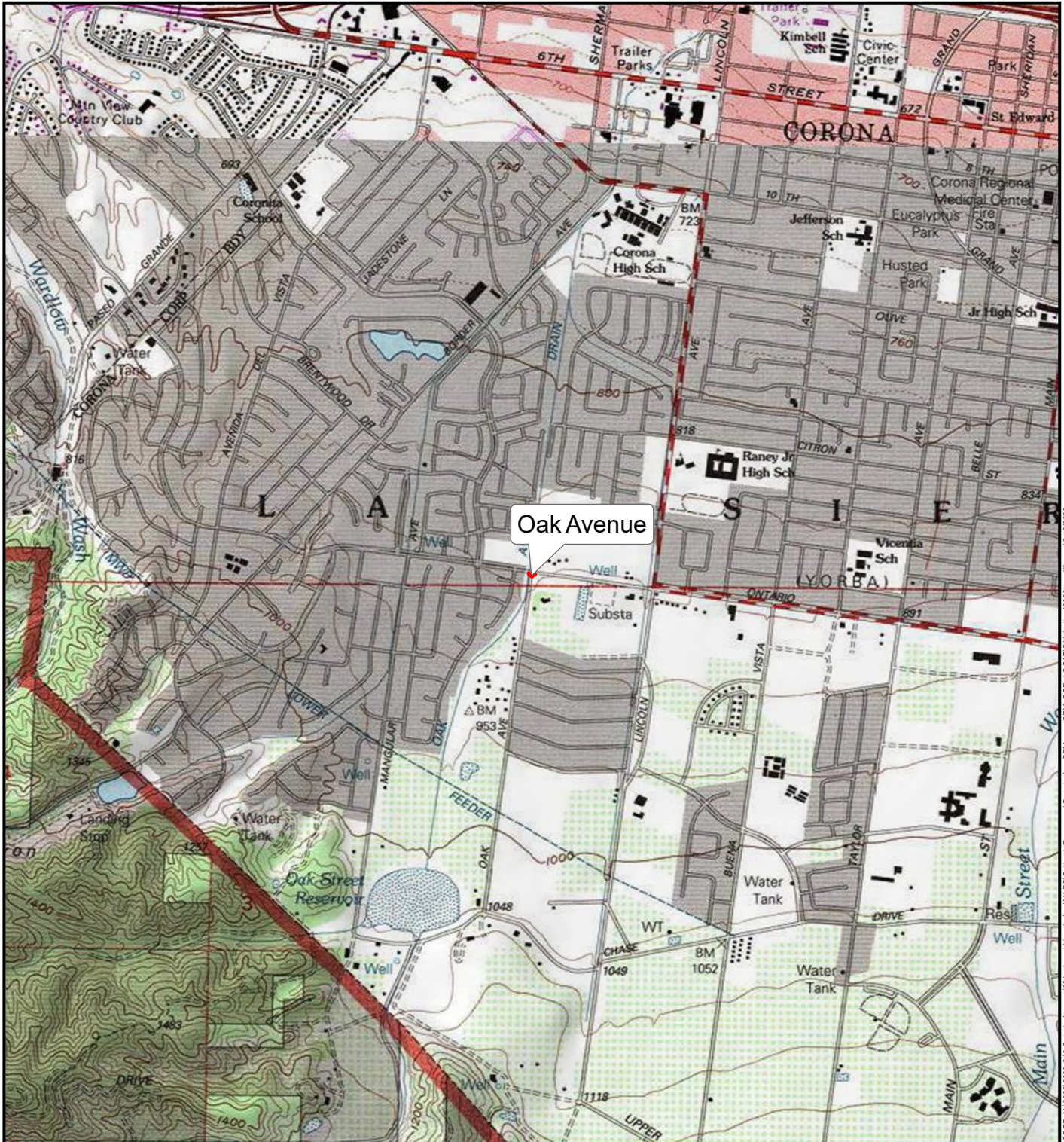
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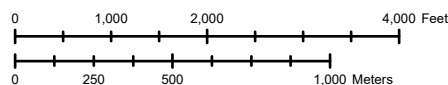
Monkkonen, Eric H. 1988. America Becomes Urban: The Development of U.S. Cities & Towns, 1780-1980. University of California Press, Berkeley, CA.





DPR 523J (1/95)

\*Required Information



ECORP: N:\2023\2023-213 Ontario Avenue Widening at Lincoln Ave\Map\FSCultural\_Resources\Ontario Ave CRM.aprx\CRM\_DPR\_LOCATION\_Letter (2022) mwilliams 12/12/2023



State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary #  
HRI #  
Trinomial  
NRHP Status Code 6Z

Other Listings  
Review Code

Reviewer

Date

Page 1 of 8

\*Resource Name or #: OV-10

**P1. Other Identifier:** Buena Vista Avenue

**\*P2. Location:**  Not for Publication  Unrestricted

**\*a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

**\*b. USGS 7.5' Quad:** Corona South **Date:** 1967 **T04S; R07W; Section 0** **S.B.B.M.**

c. Address:

City: Corona

Zip: 92882

d. UTM: 11 S 445789 mE 3746568 mN

e. Other Locational Data: N/A

**\*P3a. Description:**

Buena Vista Avenue (Resource OV-10) is an approximately 170-foot-long, north-south-oriented segment road in Corona. It is a 70-foot-wide, two-lane section of suburban road paved with asphalt. The road was built in c. 1920 and was paved during the 1970s. The western and eastern sides of the road include concrete gutters. It also features modern reflective speed bumps, reflective paint (including white side-stripes), and turn arrows.

**\*P3b. Resource Attributes:** HP37. Highway/trail

**\*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing



**P5b. Description of Photo:**

Overview of Buena Vista Avenue  
View northeast, May 6, 2023

**\*P6. Date Constructed/Age and Sources:**

Historic  Prehistoric  Both  
c. 1920 (Topographic Map)

**\*P7. Owner and Address:**

Riverside County  
4040 Lemon Street  
Riverside, CA 92501

**\*P8. Recorded by:**

Andrew Bursan  
ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, CA 92705

**\*P9. Date Recorded:**

December 6, 2023

**\*P10. Survey Type:**

Intensive

**\*P11. Report Citation:**

ECORP Consulting, Inc. 2023. Cultural Resources Investigation and Built Environment Evaluation for the Ontario Road Widening at Lincoln Avenue, Riverside County, California. Prepared for City of Corona

**\*Attachments:**  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

\*Resource Name or # OV-10

- B1. Historic Name: Buena Vista Avenue
- B2. Common Name: Buena Vista Avenue
- B3. Original Use: Road
- B4. Present Use: Road

\*B5. Architectural Style: N/A

\*B6. Construction History:  
N/A

\*B7. Moved?  No  Yes  Unknown Date: N/A Original Location: N/A

\*B8. Related Features: N/A

B9a. Architect: N/A

b. Builder: N/A

\*B10. Significance: Theme: Road  
Period of Significance: 1920s

Area: Corona  
Property Type: Road

Applicable Criteria: N/A

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B11. Additional Resource Attributes: N/A

\*B12. References:

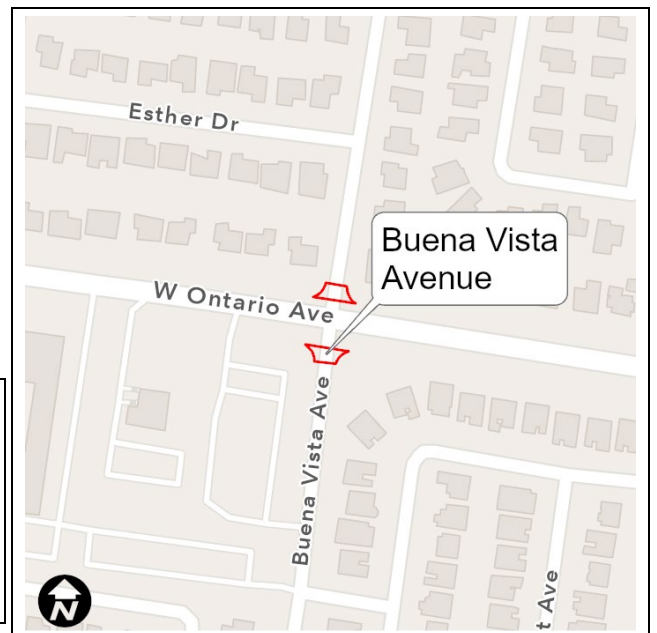
(See continuation sheet)

B13. Remarks: None

\*B14. Evaluator:  
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\*Date of Evaluation: December 7, 2023

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**B10. Significance (continued):**

Historic Context

**City of Corona History**

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In 1936, the Federal Housing Administration (FHA), a New Deal program designed to boost mortgage lending in the United States, developed design standards for new suburban residential streets. FHA standards called for quieter streets with T-intersections, cul-de-sacs, and curvilinear patterns in an effort to slow traffic. With few exceptions, homebuilders in California and other western states after 1940 adhered to FHA standards; homebuilders also eliminated alleys behind residential properties in favor of driveways leading to street-facing garages (Kostof 1992). After 1960, homebuilders also began creating large master planned suburban developments featuring winding arterial parkways deliberately separated from residential zones to permit higher speeds.

### Roads in Corona

Roads first developed in Corona's historic core on Grand Boulevard, a circle street that is 3 miles in circumference, 1 mile in diameter, and 100-feet wide. Two principal thoroughfares, Main Street (north-south) and Sixth Street (east-west), intersect at the center of the circle. Inside the circle, a grid of pedestrian-oriented, rectangular blocks and streets create neighborhoods and small commercial nodes. Most residential neighborhoods in the historic core contain single-family and low-density multifamily homes, most of which are accessed by rear alleys (City of Corona 2021).

Residential streets outside the historic core serve typical suburban neighborhoods built after World War II that are characterized by cul-de-sacs and wide curvilinear streets. Community-serving commercial centers exist at major street intersections of the primary entries and in most neighborhoods (City of Corona 2021).

Roads within the Project Area include West Ontario Avenue, Lincoln Avenue, Oak Avenue, and Buena Vista Avenue. While Riverside County crews constructed all four roads circa 1920s, research found little indication that they shared an association with the Good Roads Movement that lasted until the late 1920s. A 1948 aerial image depicts all four roads in their current confirmation except for S. Lincoln Avenue which was realigned roughly 600 feet south of W. Ontario Avenue in the 1990s. Riverside County paved all four roads during 1970s according to aerial images. From at least the 1940s to the 1960s, these roads served the surrounding agriculture activities but by 1970s and 1980s suburban single-family neighborhoods developed adjacent to these roads (City of Corona 2021; National Environmental Title Research LLC [NETR] 2023).

### Evaluation

Buena Vista Avenue (Resource OV-10) does not meet any of the criteria for listing in the NRHP or CRHR, or as a City of Corona Historic Landmark, either individually or as part of an existing historic district, as demonstrated below.

#### *NRHP/CRHR Criterion A/1*

Buena Vista Avenue in Corona provided residents of Corona with access to other nearby rural communities in Riverside County. It did not, however, function as a major road for Corona residents because it was a one-lane dirt road until the 1970s. Furthermore, the construction of Buena Vista Avenue also did not mark a milestone in the Good Roads Movement in Riverside County. There is nothing in the archival record to suggest that Buena Vista Avenue is associated with events that have made a significant contribution to the broad patterns of Riverside County history. It is not eligible for the NRHP/CRHR under Criterion A/1.

#### *NRHP/CRHR Criterion B/2*

Riverside County crews built and maintained Buena Vista Avenue. However, there is nothing in the archival record to suggest that Buena Vista Avenue is associated with the lives of persons significant in our past. It is not eligible for the NRHP/CRHR under Criterion B/2.

#### *NRHP/CRHR Criterion C/3*

As a conventional two-lane suburban road, indistinguishable from multiple similar roads in Riverside County, Buena Vista Avenue does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction. It is not eligible for the NRHP/CRHR under Criterion C/3.

#### *NRHP/CRHR Criterion D/4*

The information potential of Buena Vista Avenue is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. It is not eligible for the NRHP/CRHR under Criterion D/4.

### *Integrity*

Though Buena Vista Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association. Regardless of integrity, due to lack of historical significance, Buena Vista Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.



17.63.050 Corona Register – Landmark listing criteria.

Criterion A, 1. Though the subject road is greater than 50 years old, ECORP found no indication that the road is of exceptional importance.

Criterion A, 2. Though the subject road is reflective of road development in Corona, archival research failed to indicate anything significant or unique about its development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3a. Though the subject road is reflective of transportation development in Corona, archival research failed to indicate anything significant or unique about the road's development history. The road was not the first or last of its type, and similar types exist throughout the region. Furthermore, research did not indicate that the subject road is associated with more specific events or patterns of development that have historical significance at the local level.

Criterion A, 3b. As stated in the NRHP and CRHR evaluation above, the road is not associated with the lives of persons significant in Corona's past.

Criterion A, 3c. As a conventional two-lane suburban section line road, indistinguishable from multiple similar roads in Riverside County, Buena Vista Avenue does not embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion A, 3d. The subject road is a commonplace street in Corona, and there is no evidence that it reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history.

Criterion A, 3e. Research found no evidence to suggest that the subject road is the work of a notable builder, designer, or architect.

Criterion A, 3f. The subject road represents a typical example of its type and does not exemplify one of the best remaining architectural styles or types in a neighborhood, nor does it contain outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period

Criterion A, 3g. The subject road is not in a unique location

Criterion A, 3h. The subject road is not a potential source of archeological or paleontological interest.

Criterion A, 3i. There is no evidence that the subject road contains a natural setting or feature that strongly contributes to the well-being of the people of Corona.

Criterion A, 4. Though Buena Vista Avenue possesses integrity of location, the road has gone from a circa 1920s one-lane dirt road to a two-lane paved road with bike lanes. In addition, the setting has completely changed from heavily agricultural land to completely developed with single-family suburban tract homes. Therefore, the change in road design and surroundings have resulted in a lack of integrity of setting, design, materials, workmanship, feeling, and association.

Regardless of integrity, due to lack of historical significance, Buena Vista Avenue does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

Criterion C. The subject road is not a reconstructed improvement.

Criterion D. The subject road is not a site, improvement, or natural feature that is intended to be primarily commemorative.

**B12. References (continued):**

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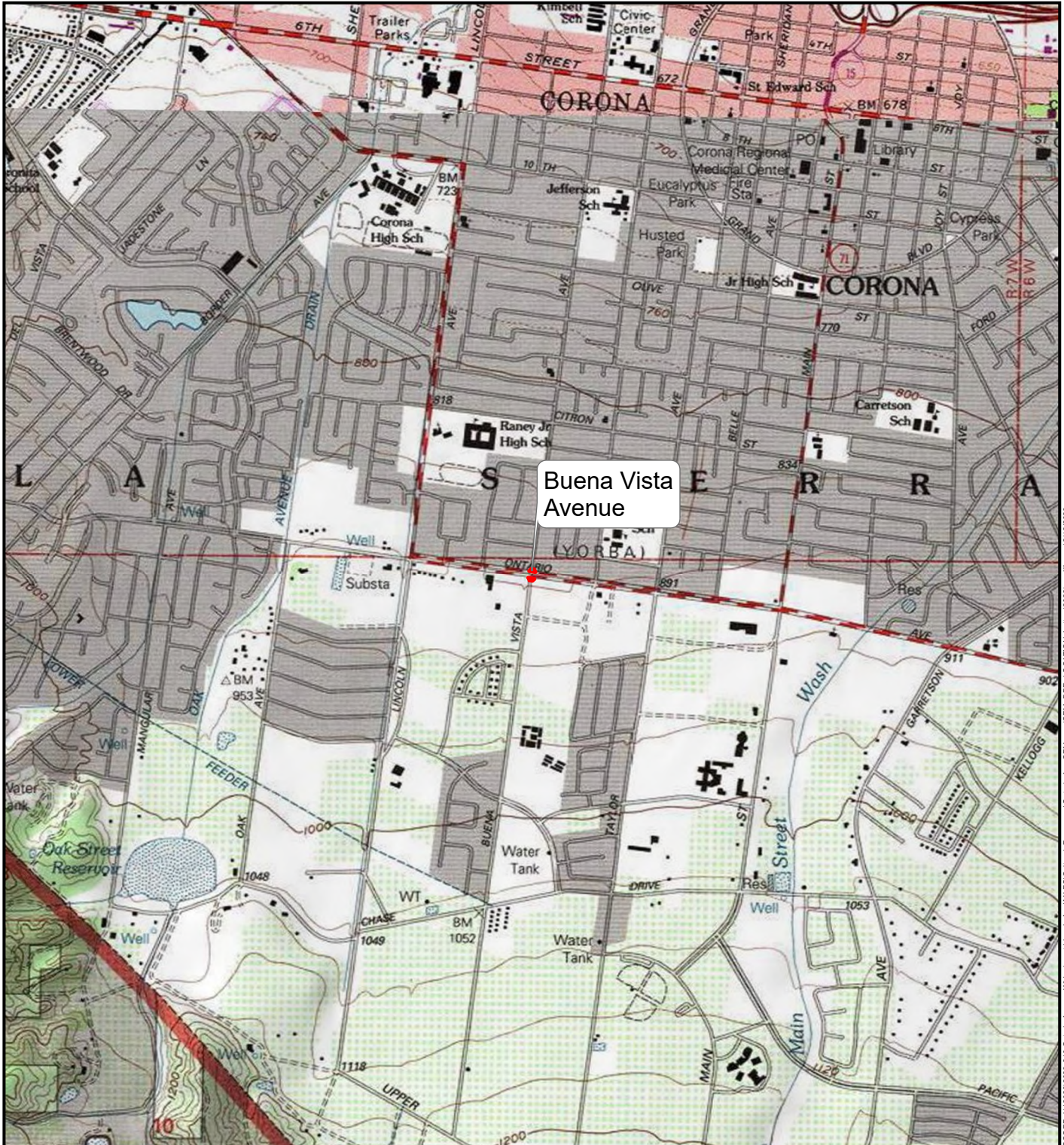
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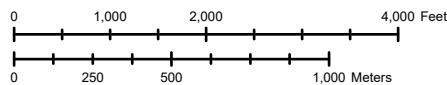
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DPR 523J (1/95)

\*Required Information



## Appendix D. Ontario Avenue Widening Vehicle Miles Traveled (VMT) Analysis Memo- randum



# Memorandum

Date: July 17, 2024  
To: Paul Mittica, Mark Thomas  
From: Paul Herrmann, P.E.  
Shane Russell  
**Subject: Ontario Avenue Widening Vehicle Miles Traveled (VMT) Analysis Memorandum**

OC23-0995

Fehr & Peers has completed a Vehicle Miles Traveled (VMT) assessment for the proposed Ontario Avenue widening (Project) in Corona, California. The Project is proposing an amendment to the adopted City of Corona General Plan (2020). This assessment compares VMT generated by the proposed Project to VMT generated by the City's previously adopted General Plan to determine if the Project would substantially increase VMT. This VMT analysis is consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018), and the *Corona Vehicle Miles Traveled Analysis Guidelines* (City's VMT Guidelines) (2019), and the *Corona General Plan Technical Update Draft Environmental Impact Report* (Corona GPU DEIR) (2019).

## Project Description

The Project proposes to widen Ontario Avenue in the City of Corona. The Project limits extend from Oak Avenue to Buena Vista Avenue. The Project will be implemented as follows:

- Widen Ontario Avenue from Oak Avenue to Lincoln Avenue from four to five lanes; one additional through lane proposed going eastbound (three through lanes total) and a merging lane going westbound (two through lanes total)
- Widen Ontario Avenue from Lincoln Avenue to Conejo Street from two lanes to three lanes going eastbound (three through lanes total)
- Widen Ontario Avenue from Buena Vista Avenue to Glenhaven Drive from two to three lanes going westbound (three through lanes)





## VMT Assessment

Fehr & Peers prepared VMT forecasts to evaluate scenarios with and without the Project using the County's travel demand forecasting model, as described below in the modeling methodology. Fehr & Peers coded the Project into the model roadway network to measure Citywide VMT with and without the Project under baseline and General Plan Buildout conditions.

VMT forecasts were prepared using the Origin/Destination (OD) Method (consistent with the way VMT was presented in the Corona GPU DEIR) and using the Boundary Method (consistent with the recommended method in the City's VMT Guidelines for transportation infrastructure projects).

### Modeling Methodology

Per the City's VMT Guidelines, VMT forecasts were prepared using the most appropriate travel demand forecasting model, the Riverside County Transportation Model (RIVCOM). Western Riverside County Council of Government's (WRCOG) developed RIVCOM as a subarea model from the Southern California Association of Government (SCAG) model, which is consistent with *Connect SoCal 2020*, SCAG's 2020 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). RIVCOM uses a model base year of 2018 and future year of 2045 and is the most appropriate model for VMT analysis of the Project as it contains the most recent land use and roadway information.

Fehr & Peers reviewed the model base year and future year roadway network and Socio-Economic Land Use Data (SED) within the City Limits. The 2045 SED was updated to account for all pending and approved development projects in the City of Corona, as directed by City staff.

As recommended in the RIVCOM model documentation, model assignment parameters were set to run up-to 10 loops with a minimum convergence criterion of 0.01.

### Origin/Destination (OD) Method VMT

The OD method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations. The OD method is completed after the final loops of assignment in the travel demand model (after person trips have been converted to total vehicle trips). Origins are all vehicle trips that start in a specific traffic analysis zone, and destinations are all vehicle trips that end in a specific traffic analysis



zone. OD VMT is typically presented as total VMT or as total VMT per Service Population (VMT/SP) (SP is the sum of population and employment within an area).

Consistent with the analysis prepared for the Corona GPU DEIR, cumulative OD VMT forecasts (with and without project) were prepared for the following areas:

- City of Corona,
- City's Sphere of Influence (SOI)
- Total City + SOI

OD VMT forecasts are presented in **Table 1**.

### **Boundary Method VMT**

The Boundary Method is the sum of all weekday VMT (volume on each roadway segment times the segment length) on a roadway network within a designated boundary. Boundary method VMT estimates VMT by multiplying the number of trips on each roadway segment by the length of each segment. This approach consists of all trips, including those trips that do not begin or end in the designated boundary and is another way to summarize VMT. This is the only VMT method that captures the effect of cut-through and/or displaced traffic.

The boundary utilized in the assessment below is the Corona City Limits Boundary as recommended in the City's VMT Guidelines. Because the Project resides near the edge of the City Limits Boundary, additional boundaries based on the average trip length to the Project location were applied consistent with OPR's recommendation. To provide a complete assessment of the Project's effect on VMT, the average trip length boundary (5.6 miles) and double the average trip length boundary (11.2 miles) are also presented.

Fehr & Peers used StreetLight Data to determine the average trip length of trips on Ontario Avenue at the Project location. Streetlight data uses anonymous in-vehicle navigation system data and some cell phone location-based services data that can be aggregated together to obtain trip estimates and trip lengths.

Boundary VMT forecasts were prepared for the following scenarios (as shown in **Table 2**):

- Model Base Year (2018) No Project (without widening)
- Model Base Year (2018) Plus Project (with widening)
- Future Year (2045) No Project (without widening)
- Future Year (2045) Plus Project (with widening)



- Notice of Preparation (NOP) Year (2023) No Project (without widening) – Interpolated between model base year (2018) and future year (2045)
- NOP Year (2023) Plus Project (with widening) – Interpolated between model base year (2018) and future year (2045)

## Conclusion

The Project would widen Ontario Avenue and add approximately 0.74 lane miles of additional capacity. Fehr & Peers prepared VMT forecasts using two methodologies to evaluate the Project's potential to induce VMT.

The OD VMT forecasts within the City and SOI decrease by a small margin, indicating that the Project improves an existing bottleneck and makes travel slightly more efficient for Corona residents and employees. The Boundary VMT forecasts are incrementally higher with the Project, indicating that the Project would contribute to improving regional travel through Corona.

Since the Project is forecast to increase Boundary VMT by only as much as 0.05%, the Project would not substantially increase VMT. In addition, since the OD VMT forecasts show a decrease in VMT and VMT/SP as compared to the adopted general plan, such that the project would not worsen the previously identified transportation impact in the Corona GPU DEIR.

**Table 1: OD VMT Analysis**

Boundary	Population	Employment	Service Population	Approved General Plan (4 Lanes)		Proposed Amendment (6 Lanes)		Change in VMT	
				Total VMT	VMT/SP	Total VMT	VMT/SP	Total VMT	VMT/SP
City of Corona	182,465	91,326	273,791	11,112,259	40.59	11,110,454	40.58	-1,805	-0.01
SOI	45,108	9,608	54,716	2,011,187	36.76	2,010,737	36.75	-451	-0.01
Total City + SOI	227,573	100,934	328,507	13,123,446	39.95	13,121,191	39.94	-2,256	-0.01

Source: RIVCOM

**Table 2: Boundary VMT Analysis**

Boundary	Base Year (2018) No Project	Base Year (2018) Plus Project	Change in VMT	Future Year (2045) No Project	Future Year (2045) Plus Project	Change in VMT	NOP Year (2023) No Project <sup>1</sup>	NOP Year (2023) Plus Project <sup>1</sup>	Change in VMT
Citywide Boundary	4,042,000	4,042,847	0.02%	4,474,027	4,744,329	0.05%	4,171,634	4,172,751	0.03%
5.6 Mile Radius	6,783,745	6,784,960	0.02%	7,881,916	7,885,209	0.04%	6,987,110	6,988,710	0.02%
11.2 Mile Radius	16,428,395	16,434,481	0.04%	21,547,697	21,557,071	0.04%	17,376,414	17,383,109	0.04%

Notes:

NOP Year (2023) VMT estimates were interpolated between Base Year (2018) and Future Year (2045).

Source: RIVCOM

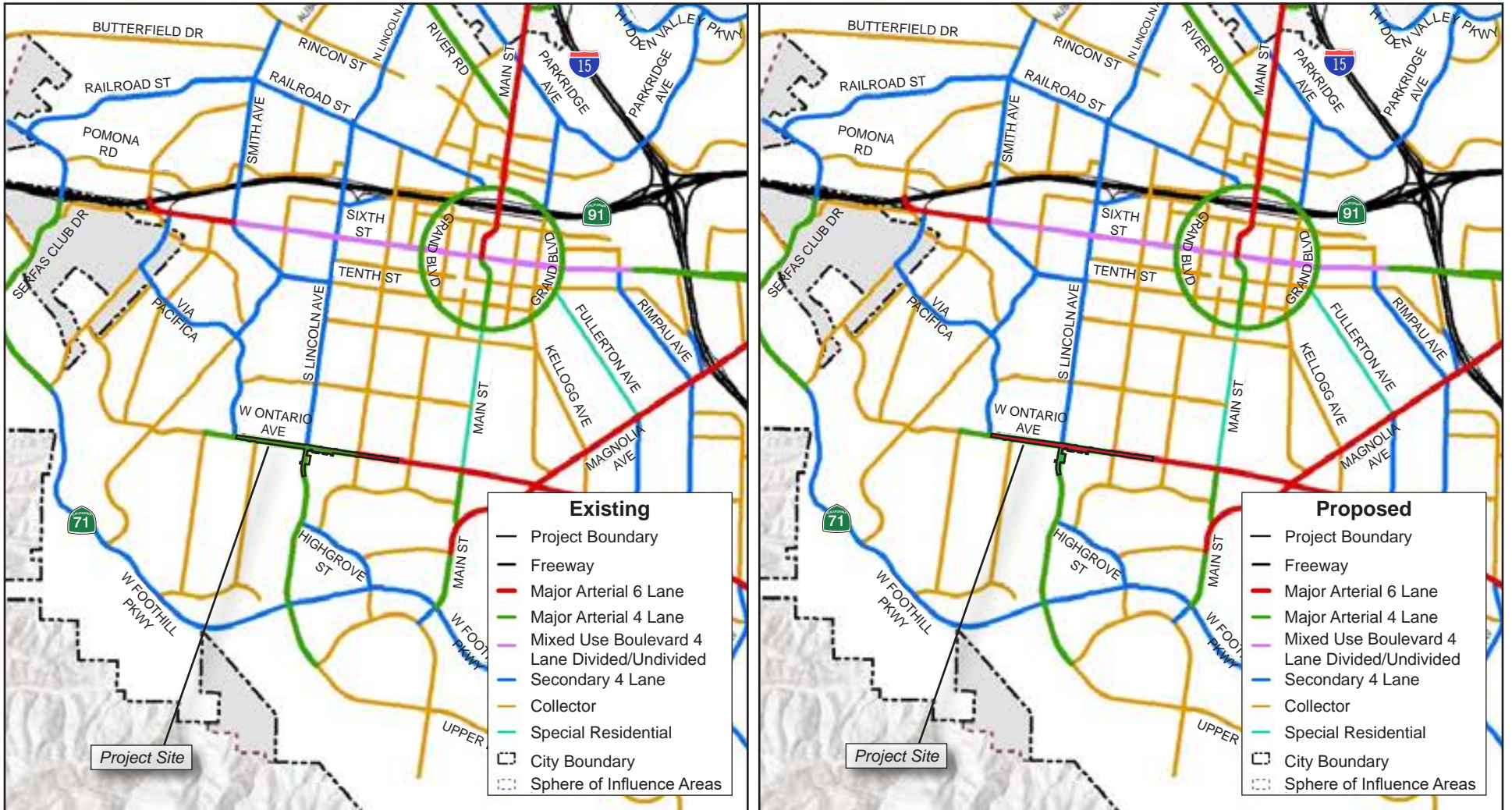
**EXHIBIT “B”  
GENERAL PLAN AMENDMENT**

**GPA2022-0002**

**(SEE ATTACHED 4 PAGES)**



Figure 6 - Existing and Proposed Roadway Plan



Existing

Proposed



Source: City of Corona 2019.

# Public Safety

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## INTRODUCTION

Protecting public health and safety is a fundamental mission of the City of Corona. While most people are familiar with the police and fire personnel who respond to emergencies, Corona engages in many less visible functions to protect people from natural and human-caused disasters. Building codes, ordinances, transportation route planning, and hazardous materials management efforts are all critical programs that protect property, life, and safety. Indeed, the City’s long-term vision cannot be fully achieved unless the public’s health and safety can be assured.

Like most California cities, Corona has an array of natural and human-caused hazards. With the many waterways traversing the City, the risk of flooding is a concern. While the hillsides that surround the City offer scenic views, they are also subject to wildfires during summer weather or mudslides during storm events. Corona is also susceptible to earthquakes due to the fault zones crossing the city as well as geologic hazards associated with its topography and soil conditions. Activities associated with commerce and the City’s transportation network all present safety hazards as well.

Consistent with its vision, the City of Corona’s efforts to protect the health and safety of the public and business community is guided by the following statement:

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*Corona is committed to protecting residents, businesses, and visitors from natural and human-induced hazards. The City is also committed to rebuilding from emergencies or disasters in a manner that efficiently and safely returns quality of life to Corona. Residents and visitors will feel safe in their homes, neighborhoods, and public places. Community and regional resources—public, private, and nonprofit—will work together to ensure the safety of all residents and to minimize the disruption caused by emergencies and disasters. By implementing appropriate protocols and programs, the City will become safer, more resilient, and prosperous in return.*

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For Corona to continue as a desirable place to live and work, the City must continue to comprehensively address the public health and safety needs of its residents, businesses, institutions, and visitors. To achieve the vision of the general plan, this public safety element therefore sets forth proactive and coordinated programs to protect against foreseeable natural and human-caused hazards. As the policies and actions are progressively implemented, the City will be increasingly less impacted by hazards, and in the process, become more self-reliant, sustainable, and prosperous.

### Scope of Element

California State law, specifically the Government Code § 65302(1), requires that each city prepare and adopt a safety element for the protection of the community from any unreasonable risks associated with a wide variety of natural and manmade hazards. This legislation encompasses a wide range of safety hazards commonly found in communities, including climate change hazards. This element addresses:

- » **Natural Hazards.** Natural hazards include a range of seismic and geologic hazards, flooding hazards, wildland and urban fire hazards, and severe weather, most of which are caused by inclement weather or natural events.
- » **Human-Caused Hazards.** These include air pollution, hazardous materials, and aviation hazards that are caused by human activities. Other transportation- and public safety hazards are addressed in other elements of the general plan.
- » **Emergency Response and Preparedness.** This refers to the range of procedures, methods, protocols, and staff the City of Corona uses to respond and prepare for emergencies and disasters, respond to them, and recover from them.

This public safety element is intended to: 1) recognize the local hazards associated with Corona's environment, and 2) identify methods to manage these risks and protect people, property, infrastructure, and structures from harm.

### Related Plans

Corona's public safety element is implemented by various strategic plans that protect the community from individual hazards. Some of these plans are provided by the City; others are provided by other organizations.

- » **Police Department Strategic Plan.** The Corona Police Department prepares an annual police strategic plan that contains an assessment of safety in Corona, staffing and resource allocation, and sets short and long-range goals for the future. The plan is also used evaluate outcomes and progress to meet department goals.
- » **Fire Department Strategic Plan.** The Corona Fire Department prepares an annual fire department strategic plan that sets short and long-range goals for its operations, training, and other safety outcomes. These outcomes are based on best practice, periodic organizational reviews, and city needs.
- » **Emergency Operations Plan.** Corona's EOP is intended to address the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The plan addresses potential large-scale disasters requiring unusual emergency response.
- » **Hazard Mitigation Plan (LHMP).** ~~Corona's LHMP identifies hazards and establishes a plan to prepare for emergencies and prevent or mitigate potential impacts. The City Council adopted its 2017 LHMP, and this general plan references and is consistent with the goals, policies, and programs specified therein.~~
- » **The LHMP for the City of Corona planning area was developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and followed Federal Emergency Management Agency (FEMA) 2011 Local Hazard Mitigation Plan guidance. The**

LHMP incorporates a process where hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions are developed to reduce or eliminate risk. The implementation of these mitigation actions, which include both short-term and long-term strategies, involve planning, policy changes, programs, mitigation projects, and other activities. The County of Riverside Operational Area Multi-Jurisdictional LHMP can be found here. [MJLHMP 8.7.23.pdf \(rivcoready.org\)](#)

The next sections provide context for each safety hazard presented, followed by goals and policies to achieve the general plan vision.

## SEISMIC AND GEOLOGIC HAZARDS

Corona's location and underlying geology make it susceptible to seismic and geologic hazards. Corona is situated between two active fault zones—the Whittier-Elsinore Fault Zone and the San Jacinto Fault Zone. Other potentially active faults nearby include the San Jose, Cucamonga, Sierra Madre, Newport-Inglewood, and San Andreas. While the City has not experienced a major earthquake, it is prudent to plan for such to minimize potential damage to the community, injury, and loss of life. The primary seismic and geologic hazards in Corona are summarized below.

### Seismic Hazards

Seismic activity has been known to cause ground displacement along a fault or within the general vicinity of a fault zone. Surface rupturing could damage or destroy infrastructure, pipelines, roads, and bridges. Much of the western portion of the city extending southeast through the SOI is within a fault zone. Two active surface faults—the Chino Fault and Glen Ivy segment of the Elsinore Fault—could produce earthquakes of 7M, causing surface ground ruptures. Areas with known surface rupture hazards are identified as Alquist Priolo Special Study Zones. Primary ground rupture can also be expected to spread out into secondary areas.

Ground shaking refers to the motion of the Earth's surface from an earthquake. Ground shaking is responsible for the majority of damage from earthquakes and can damage or destroy buildings, structures, pipelines, and infrastructure. The intensity of shaking depends on the type of fault, distance to the epicenter, magnitude of the earthquake, and subsurface geology. The Elsinore Fault is the dominant active fault and is capable of producing a 6.8 to 7.0 M earthquake. The greatest severity of ground shaking would occur in central Corona, Temescal Valley, and northern Corona.

Liquefaction happens when strong ground shaking causes soils that are saturated with groundwater to lose strength and behave more like a liquid than a solid. Where liquefaction occurs, the ground may give way, causing damage or destroying structures, foundations, and infrastructure. Susceptibility to liquefaction depends on the strength and duration of ground shaking, soil characteristics, and depth to the groundwater. Loose, granular materials at depths of less than 50 feet, with silt or clay contents below 30 percent, and saturated by groundwater are most susceptible. Areas at moderate-to-high risk run the entire length of Corona in areas north of SR-91.