

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

**CITY OF MURRIETA
MADISON AVENUE STREET IMPROVEMENTS
(CIP NO. 8357)
AND
WESTERN WATER
WATER LINE & SEWER LINE IMPROVEMENTS
(CONTRACT MA22-056)**

**KLEINFELDER PROJECT # 24003118.001A, 20184134.001A
MARCH 4, 2026**

Prepared for :



City of Murrieta
1 Town Square
Murrieta, California 92562

Prepared by:



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MADISON AVENUE STREET IMPROVEMENTS
AND WESTERN WATER, WATER & SEWER LINE IMPROVEMENTS
MURRIETA, CALIFORNIA**

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
ACRONYMS AND ABBREVIATIONS	VIII
1 INTRODUCTION	1
1.1 PURPOSE AND LEGAL AUTHORITY	1
1.2 PROJECT PROPONENTS	1
1.3 PROJECT LOCATION	1
1.4 PROJECT OBJECTIVES/PURPOSE AND NEED	3
1.5 PREVIOUS ENVIRONMENTAL DOCUMENTATION	4
1.6 PROJECT APPROVALS AND PERMITS.....	5
1.7 PUBLIC REVIEW	5
1.8 PROJECT DESCRIPTION CHANGES FROM 30% TO 70+% DESIGN.....	6
2 PROJECT DESCRIPTION	8
2.1 PROJECT BACKGROUND.....	8
A. City of Murrieta Madison Avenue Street Improvements	8
B. Western Water, Water and Sewer Line Improvements.	8
2.2 PROJECT LOCATION	9
A. City of Murrieta Madison Avenue Street Improvements.....	9
B. Western Water, Water and Sewer Line Improvements.	11
2.3 PROJECT CHARACTERISTICS.....	12
A. Madison Avenue Street Improvements.....	12
B. Western Water, Water and Sewer Line Improvements	16
2.4 CONSTRUCTION METHODS.....	17
A. City of Murrieta Madison Avenue Street Improvements	17
B. Western Water, Water and Sewer Line Improvements.	20
3 ENVIRONMENTAL SETTING.....	22
3.1 EXISTING LAND USE	22
3.1.1 On-Site Land Uses	22
3.1.2 Surrounding Land Uses	23
4 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST.....	25
4.1 AESTHETICS	26
4.1.1 Setting	26
4.1.2 Thresholds.....	33
4.1.3 Impact Discussion	37
4.1.4 Mitigation and Residual Impacts	39
4.2 AGRICULTURE AND FORESTRY RESOURCES.....	40
4.2.1 Setting.....	41
4.2.2 Thresholds.....	42
4.2.3 Impact Discussion	43
4.2.4 Mitigation.....	43
4.3 AIR QUALITY.....	43
4.3.1 Setting.....	44

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
4.3.2	Thresholds..... 47
4.3.3	Impact Discussion 48
4.3.4	Mitigation and Residual Impacts 53
4.4	BIOLOGICAL RESOURCES 53
4.4.1	Setting..... 54
4.4.2	Thresholds..... 62
4.4.3	Impact Discussion 63
4.4.4	Mitigation and Residual Impacts 87
4.5	CULTURAL RESOURCES 95
4.5.1	Setting..... 95
4.5.2	Thresholds..... 96
4.5.3	Impact Discussion 97
4.5.4	Mitigation and Residual Impacts 98
4.6	GREENHOUSE GAS EMISSIONS 103
4.6.1	Setting..... 103
4.6.2	Thresholds..... 104
4.6.3	Impact Discussion 106
4.6.4	Mitigation and Residual Impacts 109
4.7	ENERGY 109
4.7.1	Setting..... 109
4.7.2	Thresholds..... 109
4.7.3	Impact Discussion 110
4.7.4	Mitigation and Residual Impacts 111
4.8	GEOLOGY / SOILS 111
4.8.1	Setting..... 112
4.8.2	Thresholds..... 115
4.8.3	Impact Discussion 115
4.8.4	Mitigation Measures..... 120
4.9	HAZARDS AND HAZARDOUS MATERIALS..... 123
4.9.1	Setting..... 123
4.9.2	Thresholds..... 129
4.9.3	Impact Discussion 129
4.10	HYDROLOGY / WATER QUALITY..... 133
4.10.1	Setting..... 134
4.10.2	Thresholds..... 139
4.10.3	Impact Discussion 139
4.10.4	Mitigation and Residual Impacts 144
4.11	LAND USE / PLANNING 145
4.11.1	Setting..... 145
4.11.2	Thresholds..... 151
4.11.3	Impact Discussion 160
4.11.4	Mitigation and Residual Impact..... 161
4.12	MINERAL RESOURCES 161
4.12.1	Setting..... 161

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
4.12.2	Thresholds..... 161
4.12.3	Impact Discussion 162
4.12.4	Mitigation..... 162
4.13	NOISE 162
4.13.1	Setting..... 163
4.13.2	Thresholds..... 164
4.13.3	Impact Discussion 165
4.13.4	Mitigation and Residual Impact..... 169
4.14	POPULATION AND HOUSING 171
4.14.1	Setting..... 172
4.14.2	Thresholds..... 172
4.14.3	Impact Discussion 172
4.14.4	Mitigation and Residual Impacts 173
4.15	PUBLIC SERVICES..... 173
4.15.1	Setting..... 173
4.15.2	Thresholds..... 174
4.15.3	Impact Discussion 174
4.15.4	Mitigation and Residual Impacts 175
4.16	RECREATION..... 175
4.16.1	Setting..... 175
4.16.2	Thresholds..... 176
4.16.3	Impact Discussion 176
4.16.4	Mitigation and Residual Impacts 176
4.17	TRANSPORTATION / TRAFFIC..... 176
4.17.1	Setting..... 177
4.17.2	Thresholds..... 179
4.17.3	Impact Discussion 179
4.17.4	Mitigation and Residual Impacts 183
4.18	TRIBAL CULTURAL RESOURCES 183
4.18.1	Setting..... 183
4.18.2	Thresholds..... 185
4.18.3	Impact Discussion 185
4.18.4	Mitigation and Residual Impacts 189
4.19	UTILITIES / SERVICE SYSTEMS 189
4.19.1	Setting..... 190
4.19.2	Thresholds..... 190
4.19.3	Impact Discussion 190
4.19.4	Mitigation and Residual Impacts: 191
4.20	WILDFIRE..... 191
4.20.1	Setting..... 192
4.20.2	Thresholds..... 193
4.20.3	Impact Discussion 193
4.20.4	Mitigation and Residual Impacts 194
4.21	MANDATORY FINDINGS OF SIGNIFICANCE 194

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
5 MITIGATION MONITORING AND REPORTING PROGRAM.....	196
6 ENVIRONMENTAL HEARING OFFICER DETERMINATION.....	208

FIGURES

Figure 1: Vicinity Map	2
Figure 2: Madison Avenue Potential Impact Area Map.....	10
Figure 3: Western Water Potential Impact Area Map	11
Figure 4a: Street Plan View	13
Figure 4d: Cross-Section in Location of Maximum Cut Slope	14
Figure 4e: Cross-Section in Location of Maximum Fill Slope	15
Figure 5: Typical Water and Sewer Line Sections	17
Figure 6: South Murrieta Business Corridor	23
Figure 7: Existing Development	24
Figure 8: Physical Features Surrounding the Proposed Project Site.....	30
Figure 9: Mount Palomar Night Time Lighting Policy Area	31
Figure 10: Important Farmlands	42
Figure 11: MSHCP Southwest Area Plan Excerpt	55
Figure 12: MSHCP Criteria Cells Excerpt	64
Figure 12a: Elm Street Incursion into MSHCP Criteria Cell	86
Figure 13: Vegetation and Aquatic Features	66
Figure 14: Vegetation Impacts	69
Figure 15: Regional Geology	113
Figure 16: Slope Stability.....	116
Figure 17: Liquefaction Susceptibility	117
Figure 18: FEMA Flood Plain Areas.	125
Figure 19: SWRQCB Geotracker (Excerpt)	131
Figure 20: DTSC EnviroStor (Excerpt).....	132
Figure 21: City of Murrieta Storm Drain System.....	143
Figure 22: Riverside General Plan	146
Figure 23: General Plan Land Use Designations	147
Figure 24: Sensitive Receiver and Noise Measurement Locations	167
Figure 25: Murrieta General Plan Circulation Element (Excerpt)	177
Figure 26: Fire Hazard Severity Zones.....	192

TABLES

Table 1: South Coast Air Basin – Attainment Status	46
Table 2: Maximum Daily Construction Emissions	50
Table 3: Maximum Localized Daily Construction Emissions	52
Table 4: Vegetation Communities and Land Covers	56
Table 5: Existing Habitats Evaluated for Riparian/Riverine Potential ¹	67
Table 6: CONSTRUCTION GHG EMISSIONS	107

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Page</u>
Table 7: Historic Earthquakes within 50 km of Site (>Mw 6.0).....	125
Table 8: City of Murrieta Noise Limitations	164
Table 9: Ambient Noise Level Measurements	166
Table 10: Existing and Projected Traffic Volumes.....	180

APPENDICES

1. Madison Avenue Street Improvements, Traffic Impact Analysis, City of Murrieta (RICK Engineering Company, July 15, 2025)
2. Madison Avenue Street Improvements Project, General Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis (HELIX Environmental Planning, Inc., November 2025)
3.
 - a. Paleontological Resources Assessment for the Madison Avenue Improvements Project (Applied Earthworks, September 2018)
 - b. Paleontological Resource Revalidation Memorandum for the Madison Avenue Improvement Project (Applied Earthworks, June 14, 2024)
4.
 - a. Phase I Cultural Resource Assessment for Madison Avenue Improvement Project (Applied Earthworks, September 2018)
 - b. Cultural Resource Revalidation Memorandum (Applied EarthWorks, May 16, 2024)
5. Acoustical Analysis Report (HELIX Environmental Planning, Inc., May 2024)
6. Air Quality and Greenhouse Gas Emissions Impact Assessment (HELIX Environmental Planning, Inc. 05/06/24)
7. Reserved (not included)
8. Preliminary Drainage Study for Madison Avenue Improvement Project From Guava Street to Elm Street (RICK Engineering Company, March 6, 2024)
9. Cumulative Projects
 - a. Non-residential Map and List
 - b. Residential Map and List

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AC	Asphalt Concrete
ADT	Average Daily Trip
Agreement	Cultural Resources Treatment and Monitoring Agreement
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
BGS	Below ground surface
BLM	Bureau of Land Management
BMPs	Best Management Practices
Btu	British thermal unit
BUOW	Burrowing Owl
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CadNA	Computer Aided Noise Abatement software
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CAS	Climate Action Strategies
CASSA	Criteria Area Species Survey Area
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CHRIS	California Historical Resource Information System
CIP	Capital Improvement Program
City	City of Murrieta
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRGP	County of Riverside General Plan
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

CY	Cubic yards
dBA	A-weighted decibels
DBESP	Determination of Biologically Equivalent or Superior Preservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
ESA	Endangered Species Act
FAR	Floor/Area Ratio
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HFCs	hydrofluorocarbons
IBC	International Building Code
IRWMP	Integrated Regional Water Management Plan
IS/MND	Initial Study/Mitigated Negative Declaration
LDMF	Local Development Mitigation Fee
LDN	Day Night sound level
LEQ	one-hour equivalent
LF	Linear Feet
LHMP	Local Hazard Mitigation Plan
LOS	level of service
LRA	Local Responsibility Area
LST	Localized Significance Threshold
MBTA	Migratory Bird Treaty Act
MBtu	million Btu
MCR	Minor Criteria Refinement
MDC	Murrieta Municipal Code
MG	million gallons
MM	Mitigation Measure
MS4	Municipal Separate Storm Sewer System
MSHCP	Multiple Species Habitat Conservation Plan
Msl	Mean sea level
MT	metric tons
N2O	nitrous oxide
NAAQS	National ambient air quality standards
NAHC	Native American Heritage Commission
NAHPRA	Native American Historic Resource Protection Act
NAGPRA	Native American Graves Protection and Repatriation Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NOX	oxides of nitrogen
NSLU	noise-sensitive land use
NPPA	Native Plant Protection Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSLU	Noise-sensitive land uses
O3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
Pb	Lead
PFCs	perfluorocarbons
PHT	Peak Hour Trip
PM	particulate matter
PPV	peak particle velocity
PRMMP	paleontological resource monitoring and mitigation plan
RCA	Regional Conservation Authority
RCFCWD	Riverside County Flood Control and Water Conservation District
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
ROW	Right of Way
RPW	Relatively Permanent Water
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SO2	Sulfur Dioxide
SLF	Sacred Lands File
SOX	oxides of sulfur
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCA	traditionally culturally affiliated
TIA	Traffic Impact Analysis
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground storage tank
UWIG	Urban/Wildlands Interface Guidelines
VHFHSZ	Very High Fire Hazard Severity Zone

ACRONYMS AND ABBREVIATIONS (CONTINUED)

VOCs	volatile organic compounds
WATCH	Work Area Traffic Control Handbook
WQMP	Water Quality Management Plan
WSC	Western Science Center

1 INTRODUCTION

1.1 PURPOSE AND LEGAL AUTHORITY

The California Environmental Quality Act (CEQA) requires that local, regional, and state agencies and special purpose districts prepare an Initial Study (IS) to identify potential environmental impacts associated with discretionary actions. An Initial Study is generally used to determine if significant impacts would occur, and to determine the need for preparation of either a Negative Declaration (ND) or further analysis in an Environmental Impact Report (EIR). The City of Murrieta Public Works Department and Western Water have prepared this Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Madison Avenue Street Improvements and Western Water, Water and Sewer Line Improvements (Project) to comply with the provisions of CEQA.

1.2 PROJECT PROPONENTS

City of Murrieta

Department of Public Works / Engineering
1 Town Square
Murrieta, CA 92562

Contact: Jeff Hitch, P.E., City Engineer – 951-461-6076

Western Water

Water Resources Division
14205 Meridian Parkway
Riverside, CA 95218

Contact: Cesar Carillo, P.E. – 951-571-7231

1.3 PROJECT LOCATION

The proposed Project roadway alignment and water line and sewer line installation is located in the southern portion of the City of Murrieta, within southwest Riverside County, California (See Figure 1, Regional Location Map). The Project location is directly west of Interstate 15, the major freeway through the town of Murrieta (See Figure 2, Aerial View of Project Location). The proposed improvements follow the existing road alignment of Madison Avenue between the intersections of Guava Street and approximately Sandalwood Circle (350 feet south of Nick Lane). Additional improvements will occur at the intersections with Newton Azrak Street, Fig Street, Larchmont Lane, and Elm Streets between Jefferson Avenue and Hoover Street (See Figure 3, Local Vicinity Map).

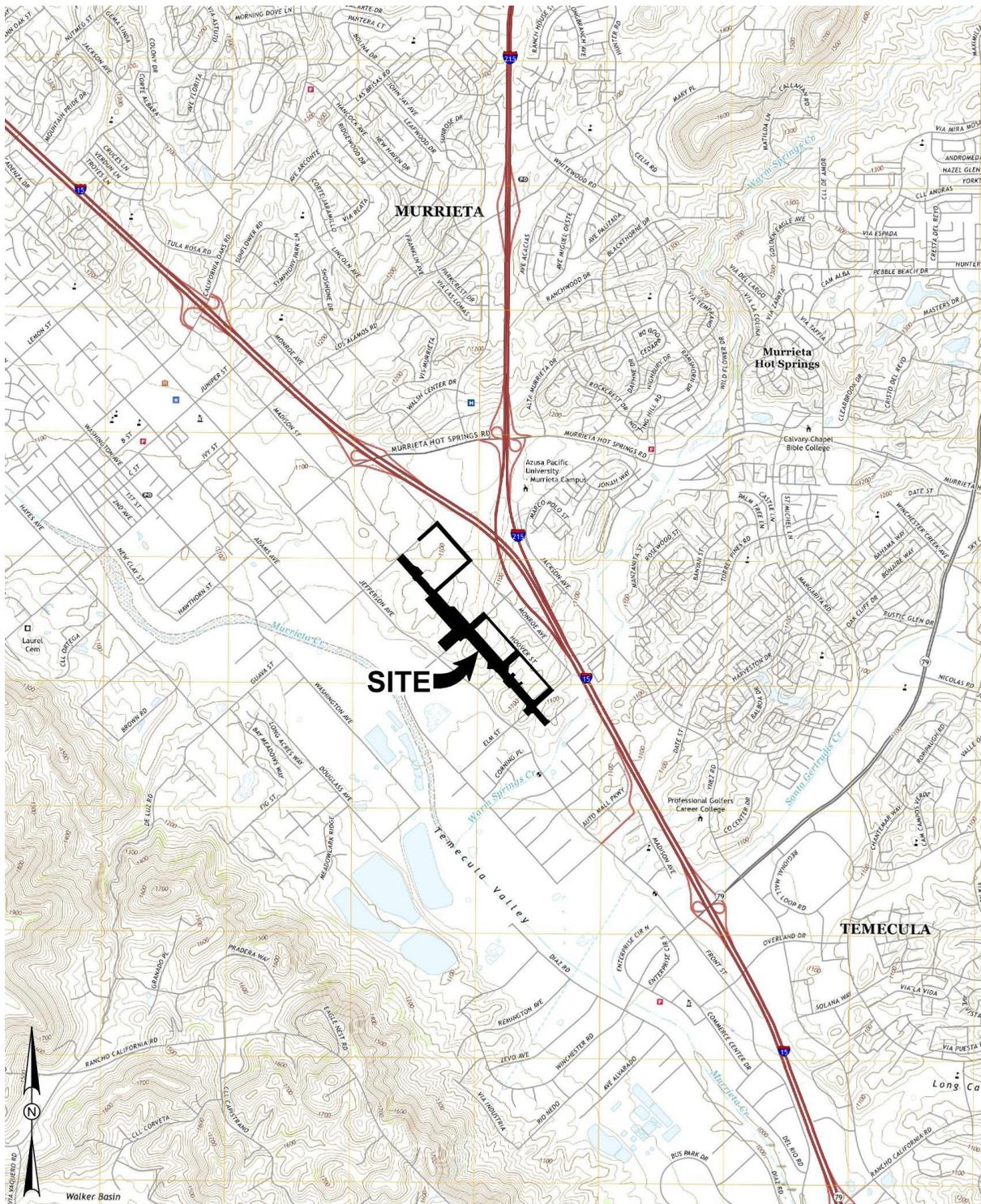


Figure 1: Vicinity Map

The proposed Project would take place on portions of the property consisting of the following Assessor Parcels (APNs):

909-060-009, -026

910-020-010, -014, -071

910-150-001, -006, -013, -014, -015, -016, -017, -020, -022, -023, -024, -026

910-160-001, -007, -011, -012, -013, -014, -015

910-170-005, -009, -010, -011

910-180-003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -017, -018, -023, -024

910-210-008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -026, -027, -028

910-211-003, -004, -005, -007

910-220-016, -026

910-221-041

910-230-001, -002, -003

910-490-016, -017

910-500-001, -002, -003

910-500-005

1.4 PROJECT OBJECTIVES/PURPOSE AND NEED

The primary objectives of the proposed Project are as follows:

Madison Avenue Street Improvements:

1. To contribute to the Economic Development goals for the City of Murrieta by increasing traffic accessibility within the Madison Avenue Commercial Corridor.
2. To improve access in the project vicinity by providing alternative routes to the areas surrounding Murrieta Hot Springs Road, Jefferson Avenue, Monroe Avenue, Winchester Road, Interstate 215, and Interstate 15.

Western Water, Water and Sewer Line Improvements:

1. To supply Western Water’s customers with safe and reliable drinking water.
2. To improve water supply and sewer infrastructure deficiencies within Western Water’s Murrieta Retail Service Area.

1.5 PREVIOUS ENVIRONMENTAL DOCUMENTATION

Documents relating to this Initial Study / Mitigated Negative Declaration have been cited and incorporated, in accordance with Sections 15148 and 15150 of the CEQA guidelines. The following references aided in the preparation of this Initial Study and are available for review at the City of Murrieta Planning Department, One Town Square, Murrieta, California 92562:

- City of Murrieta
 - General Plan 2035, Adopted July 7, 2020
 - General Plan 2035 Final Supplemental EIR, May 2020
 - General Plan 2035 EIR, July 2011
 - General Plan 2035, Adopted July 19, 2011
 - Municipal Code, 1995
 - Master Environmental Assessment, October 1992
 - Climate Action Plan
 - Emergency Operations Plan
 - Storm Water Management Plan
- Western Water (formerly Western Municipal Water District)
 - Murrieta Water and Sewer Master Plan Project IS/MND (Kimley-Horn and Assoc., February 2022)
- Riverside County
 - Climate Action Plan, December 2015
 - General Plan, Updated 2015
 - Mt. Palomar Light Pollution Ordinance No. 655.
 - Western Riverside Multiple Species Habitat Conservation Plan
 - Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022)
 - Multi-Jurisdictional Local Hazard Mitigation Plan
 - Integrated Regional Water Management Plan

1.6 PROJECT APPROVALS AND PERMITS

Project approval may require the City to obtain permits and/or other forms of approval from Federal, State and Local agencies. These agencies may include, but are not limited to, the following:

Federal Agencies:

- USACE – No permit or approval required.

Emails from the USACE (dated February 8 and April 1, 2024) state that, per the 2023 Sackett case:

“the Corps is now promulgating what is known as the 2023 Conforming Rule for determining jurisdiction. Generally, for a drainage feature to be a water of the United States, it needs to first be classified as a Relatively Permanent Water (RPW), which means that it flows or is ponded more than in direct response to precipitation. Waters that classify as an RPW often have algae and/or certain invertebrates and riparian or wetland vegetation consistent with the persistence of flowing or ponded water. For the drainages within the footprint of this project, all appear to be what would generally classify as ephemeral waters (or non-Relatively Permanent Waters). As such, waters of the United States do not appear to be present and a Department of the Army Permit for work within the project boundary would not be required.” (James E. Mace, Lead, Orange & Riverside Counties Team, Regulatory Division, U.S. Army Corps of Engineers, Los Angeles District, emails, dated 02/08/24 and 04/01/24)

State Agencies:

- State Water Resources Control Board – Construction General Permit.
- Regional Water Quality Control Board – Stormwater Pollution Prevention Plan / WDR.
- Department of Fish and Wildlife – Streambed Alteration Agreement.

Local Agencies:

- City of Murrieta Department of Public Works / Engineering – roadway encroachment permits.

1.7 PUBLIC REVIEW

Public participation is an essential part of the CEQA process. As required by CEQA, the project proponents provide adequate time for other public agencies and members of the public to review and comment on the draft CEQA document. This IS/MND is being made available to members of the public, agencies, and

interested parties for a 30-day public review period in accordance with CEQA Guidelines Section 15105. Public review of the IS/MND is intended to focus on “the proposed finding that the Project will not have a significant effect on the environment. If persons and public agencies believe that the Project may have a significant effect, they should: 1) identify the specific effect, 2) explain why they believe the effect would occur, and 3) explain why they believe the effect would be significant” (14CCR15204).

This IS/MND is available for review during the 30-day public review period at the following locations:

City of Murrieta

Department of Public Works / Engineering
1 Town Square
Murrieta, CA 92562

Western Water

Water Resources Division
14205 Meridian Parkway
Riverside, CA 95218

Upon completion of the 30-day public review period, the Public Works Director shall consider the IS/MND together with any comments received during the public review period. The Public Works Director shall adopt the proposed IS/MND if it is determined that there is no substantial evidence that the proposed Project will have a significant effect on the environment and that the IS/MND reflects the agency’s independent judgment and analysis. The Department of Public Works / Engineering shall file a Notice of Determination at the City Clerk’s office within five (5) calendar days after deciding to carry out or approve the proposed Project.

1.8 PROJECT DESCRIPTION CHANGES FROM 30% TO 70+% DESIGN

The following changes to the proposed Project have occurred as the initial 30% design level has increased to 70%+:

1. Additional grading on private property to eliminate one storm drain lateral and direct storm water to proposed new storm drain at STA 41+10 (Madison STA 39+00 to 42+00 (APN 910-150-026).
2. Revised Newton Azrak connection with Madison Avenue to align with existing roadway to Border Patrol facility (Madison STA 49+10).
3. Revised Fig Street connections to Madison Avenue to minimize impact to existing residence at APN 910-160-014 (Madison STA 63+00).
4. Residential lot required significant grading to accommodate driveway access at Madison Avenue (Madison STA 70+12 (APN 910-180-006)).

5. Project topography revised to show canopy cover installed private property. There is an impact to canopy structure and potential to residential mobile home structure (Madison STA 70+47 (APN 910-180-007)).
6. Madison Avenue corridor: Water quality features (rock garden and rock swale) location added to plan.
7. Storm drain culvert grading at inlet and outlets designed (grading and rip rap limits).
8. Signing & Striping: Stop signs removed at Fig and Elm for Madison Avenue traffic. Fig and Elm traffic will have stop signs at Madison Avenue.
9. Erosion Control Plan sheets added to plan set.
10. Traffic Control Plan sheets (Stages 1-5) added to plan set.

While a number of Technical Studies and analyses are based on the 30% plans (and thus do not assess these changes/additions), the conclusions of the original Initial Study/Mitigated Negative Declaration determination have not changed. The subject draft IS/MND discusses the scale and scope of these changes in each applicable issue area in a manner which establishes that all potentially adverse environmental impacts remain less than significant with incorporation of mitigation measures.

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

A. City of Murrieta Madison Avenue Street Improvements.

The proposed City of Murrieta (City) Madison Avenue Street Improvements project has been planned to improve accessibility to the South Madison Avenue Business Corridor, as identified in the City's General Plan 2035 Circulation Element. Consistent with General Plan 2035, which anticipates increased commercial activity throughout the project corridor as part of the City's economic development goals, the proposed Project would provide improved access to the area through: 1) an alternative north/south circulation option between Jefferson Avenue (to the west) and Monroe Avenue (to the east); and 2) alternative routes to the surrounding Murrieta Hot Springs Road, Jefferson Avenue, Winchester Road, Interstate 215, and Interstate 15 roadway network. In addition, enhanced safety would be provided by improving sight distance lines (following grade changes which adhere to roadway design standards) as well as additional sidewalks and streetlights at existing developed frontage and intersections.

B. Western Water, Water and Sewer Line Improvements.

Western Water proposes to update sewer system and water supply infrastructure within the South Madison Avenue Business Corridor in the City. With the exception of an approximately 600-foot segment on Fig Street, the Western Water Madison Avenue Water and Sewer Improvements component (Western Water) proposes to install new sewer system and water system lines in order to improve water supply and sewer infrastructure issues for the District's service area within the footprint of the City's proposed Madison Avenue Street Improvements component of the project.

Western Water provides water and wastewater services to retail customers and wholesale agencies over a 527-square-mile area in western Riverside County, including the City. The proposed Project would be located within the Murrieta Retail Service Area (a 6.5-square-mile area in the City located to the southwest of I-15). The area is bounded to the west by hills and the Santa Rosa Plateau, to the south by Temecula, to the east by the central and eastern portions of the City, and to the north by the City of Wildomar. In 2006, Western Water took over ownership of the Murrieta Retail Area from the Murrieta County Water District and incorporated it into Western Water. The Murrieta Sewer Division collection systems consist of approximately 38 miles of pipeline ranging from 4 inches to 15 inches in diameter of ductile iron, polyvinyl chloride, or vitrified clay material. By length, 88 percent of the pipelines are 8 inches in diameter and 65 percent are polyvinyl chloride. The Murrieta Retail Area water system consists of approximately 2,800 potable water connections served by over 52 miles of potable water pipelines, four potable water tanks, one booster station, and one PRV station. Due to elevation changes, the service area is split into

two pressure zones: the 1280 Zone and the 1430 Zone. The 1280 Zone is the larger of the two zones, containing almost 42 miles of water pipelines and serving residential, commercial, and industrial customers. Two tanks, located at the Olga Gordon site on the southern edge of the system, store water for the zone. Both tanks have a low water level of 1,250 feet, a high-water level of 1,282 feet, and a radius of 45 feet, giving them both a capacity of 1.5 million gallons (MG). The 1430 Zone serves the more elevated, northwest portion of the system. It contains almost 11 miles of water pipelines and serves exclusively residential customers. The zone currently has existing storage capable of holding 1.9 MG of potable water at the Grizzly Ridge site.

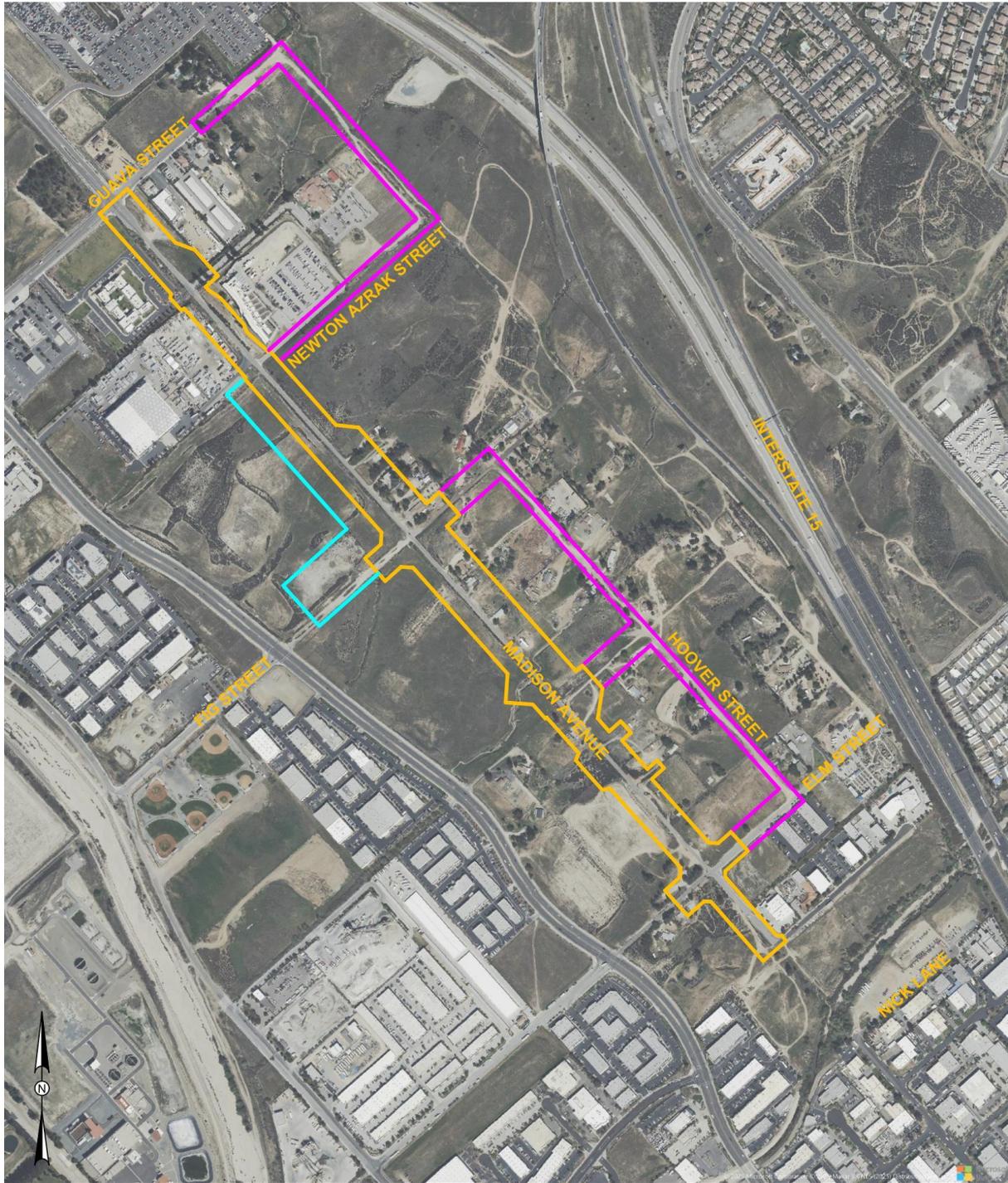
C. Relationship between the Two Project Components

Construction of the Western Water component would be entirely coordinated with the Madison Avenue Street Improvements component and integrated into a single construction schedule. With the exception of an approximately 600-foot segment of Fig Street, all of the Western Water sewer and water lines would be installed within the paved portions of the Madison Avenue roadway corridor. Combining the two project components in this manner would substantially reduce construction impacts. Both project components would be subject to the entire list of mitigation measures contained herein.

2.2 PROJECT LOCATION

A. City of Murrieta Madison Avenue Street Improvements.

The proposed roadway improvements would follow the existing horizontal road alignment of Madison Avenue between the intersections of Guava Street and Elm Street and would include additional improvements on the intersecting Fig Street, Larchmont Lane, and Elm Street between Jefferson Avenue and Hoover Street. A temporary construction detour route would be provided on Fig Street, Hoover Street, Elm Street, Guava Street, Monroe Avenue and Newton-Azrak Street. (See Figure 2, Project Impact Area Map).



SOURCE: Aerial, © Microsoft Corporation © 2025 Maxar
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LEGEND

- POTENTIAL IMPACT AREA - LAYDOWN
- POTENTIAL IMPACT AREA - ROADWAY IMPROVEMENTS
- POTENTIAL IMPACT AREA - TRAFFIC CONTROL

Figure 2: Madison Avenue Potential Impact Area Map

B. Western Water, Water and Sewer Line Improvements.

The proposed water and sewer improvements would follow the existing road alignment of Madison Avenue, from Guava Street to Elm Street, and would include additional improvements on the intersecting Fig Street, from approximately 200 feet west of Jefferson Avenue to Madison Avenue. A temporary construction detour route would be provided on Fig Street, Hoover Street, Elm Street, Guava Street, Monroe Avenue and Newton Azrak Street. (See Figure 3, Project Impact Area Map).

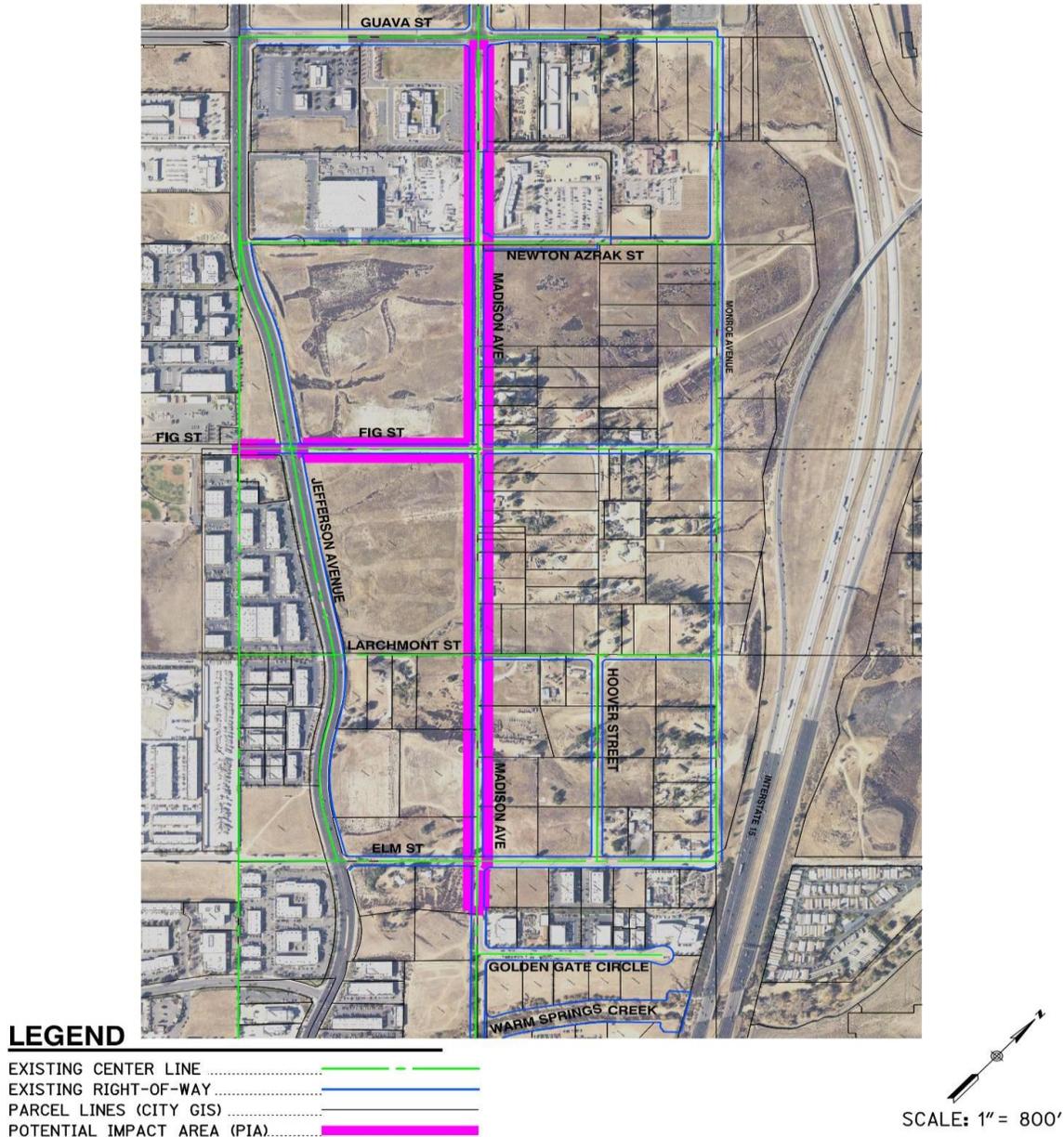


Figure 3: Western Water Potential Impact Area Map

2.3 PROJECT CHARACTERISTICS

A. Madison Avenue Street Improvements

The proposed Project, which has been preliminarily designed to a 70% completed plans level, involves the development of an approximately 1.1-mile (5,900 linear feet) segment of Madison Avenue (from the intersection at Guava Street to a transitional connection with existing pavement south of Elm Street and no further than Golden Gate Circle. In order to minimize the need for additional area outside of the existing interim 60-foot right-of-way (ROW), the project would follow the existing roadway along its entire length.

Construction would be to the City's Secondary Highway Design Standards (as provided on the City's Circulation Element) with a full ultimate ROW width of 88-feet, an interim ROW width of 74-feet, and full ultimate curb-to-curb width of 64-feet. The project roadway would be full-width between Guava Street and Newton-Azrak Street, and partial-width from Newton-Azrak Street to Elm Street. The partial width segment would consist of full-width improvements on the western half of the roadway plus 12-feet of paving and a 10-foot graded shoulder on the eastern half of the roadway, resulting in a total pavement width of 44-feet. The roadway would be striped for two vehicular travel lanes, one in each direction, a center two-way-left-turn-lane, and two striped 5-foot-wide Class 2 bike lanes adjacent to the travel lanes. The southbound lanes would feature a concrete curb and gutter, and a 12-foot-wide parkway with a 5-foot wide non-contiguous sidewalk located 7-feet behind face of curb in portions of the project. The northbound lanes would feature a 6-inch AC berm, and a 10-foot-wide graded parkway. (See Figure 4, Typical Street Sections).

FIGURES 4a – 4e STREET SECTIONS

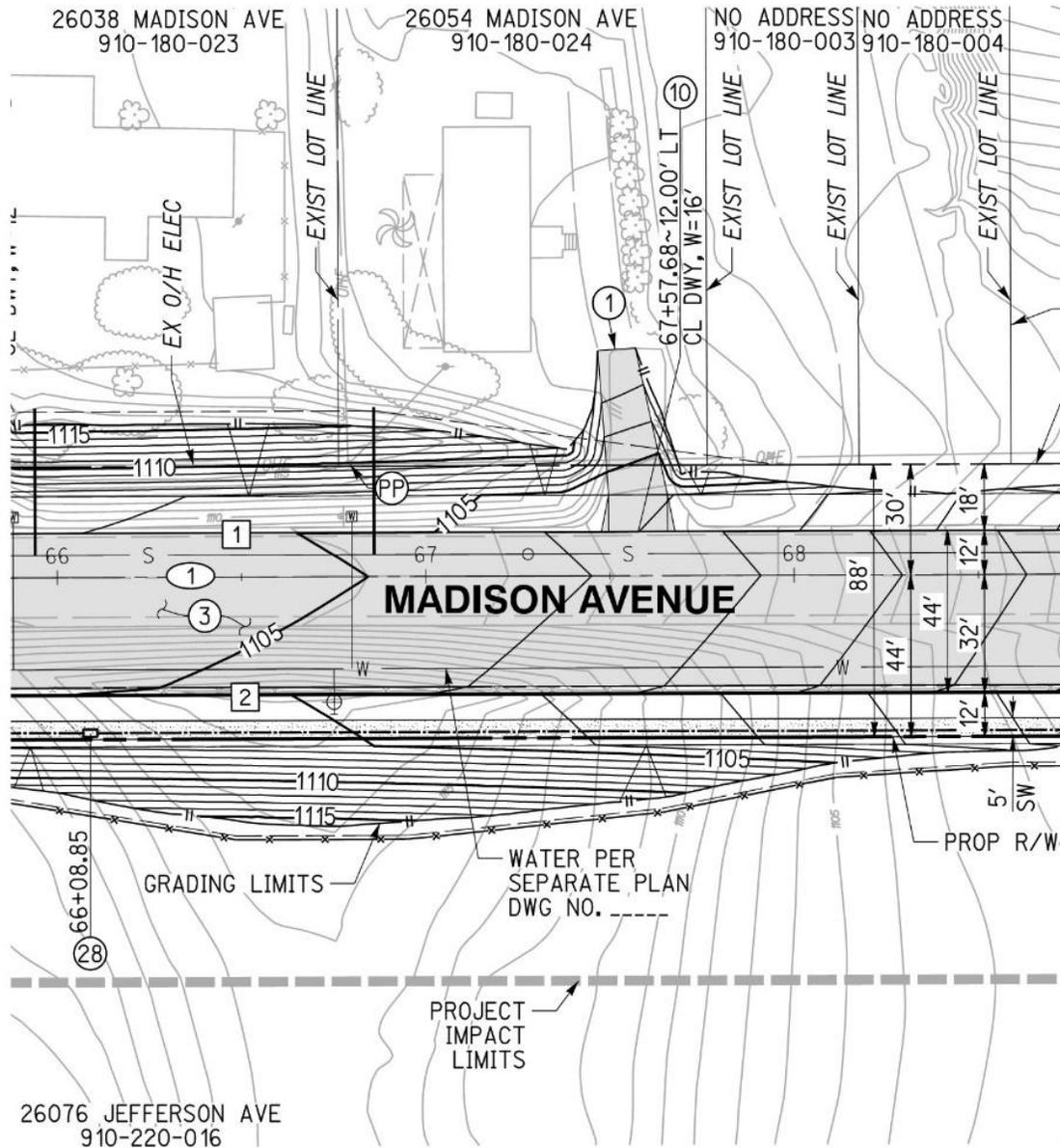


Figure 4a: Street Plan View

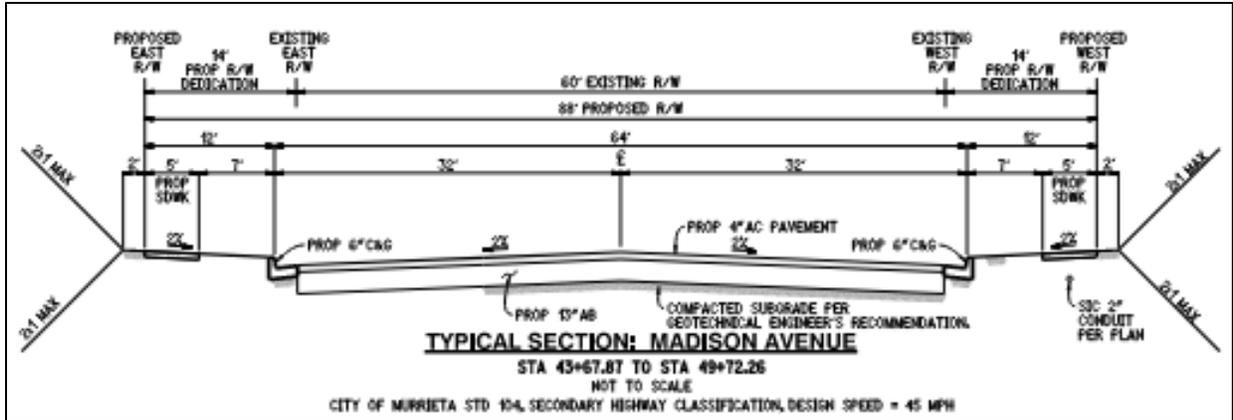


Figure 4b: Typical Cross-Section

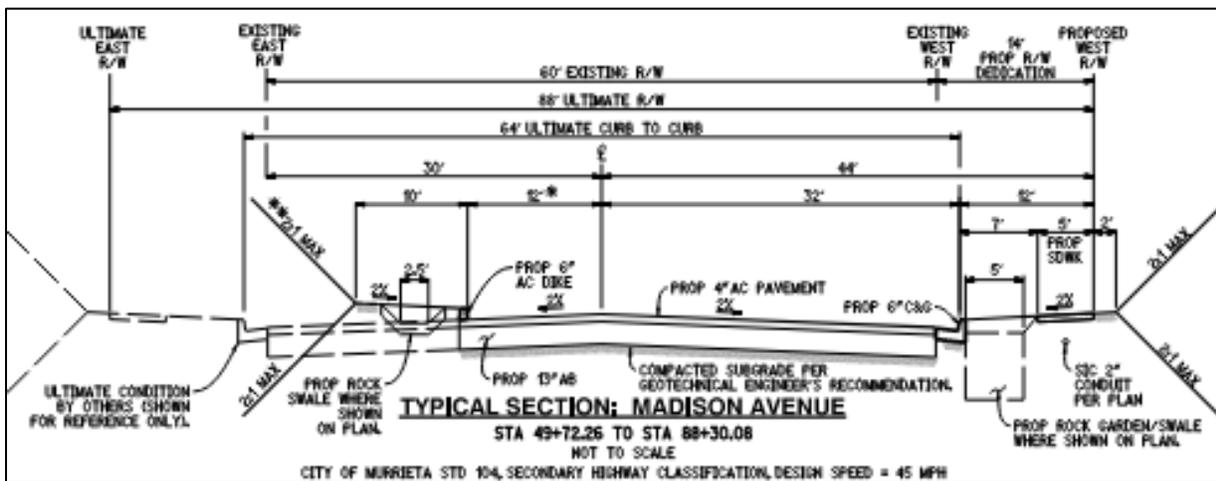


Figure 4c: Typical Cross-Section with Rock Garden/Swale

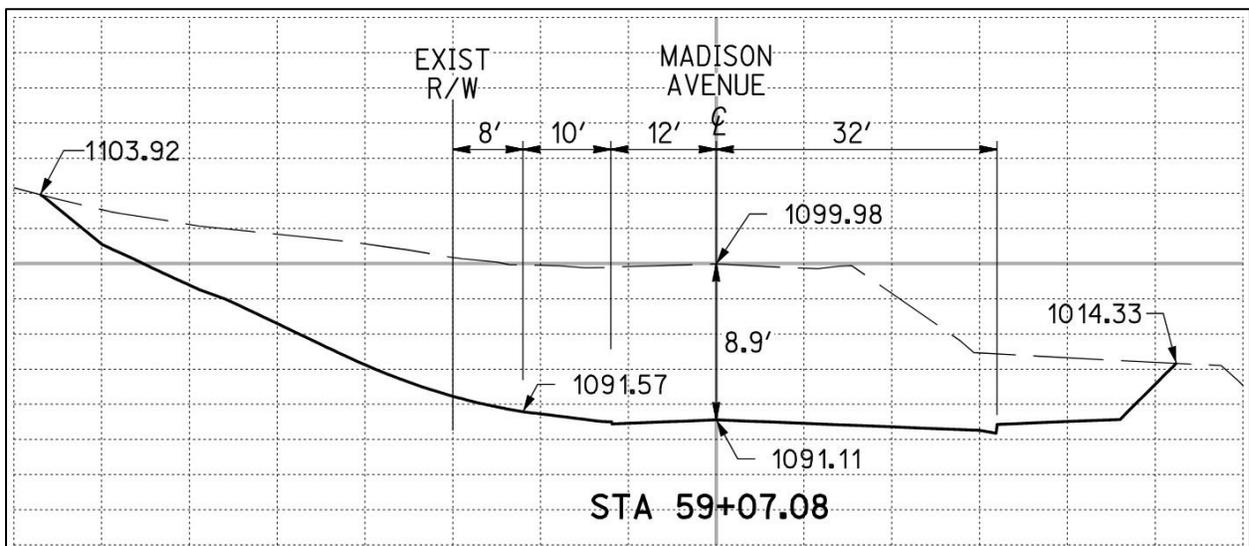


Figure 4d: Cross-Section in Location of Maximum Cut Slope

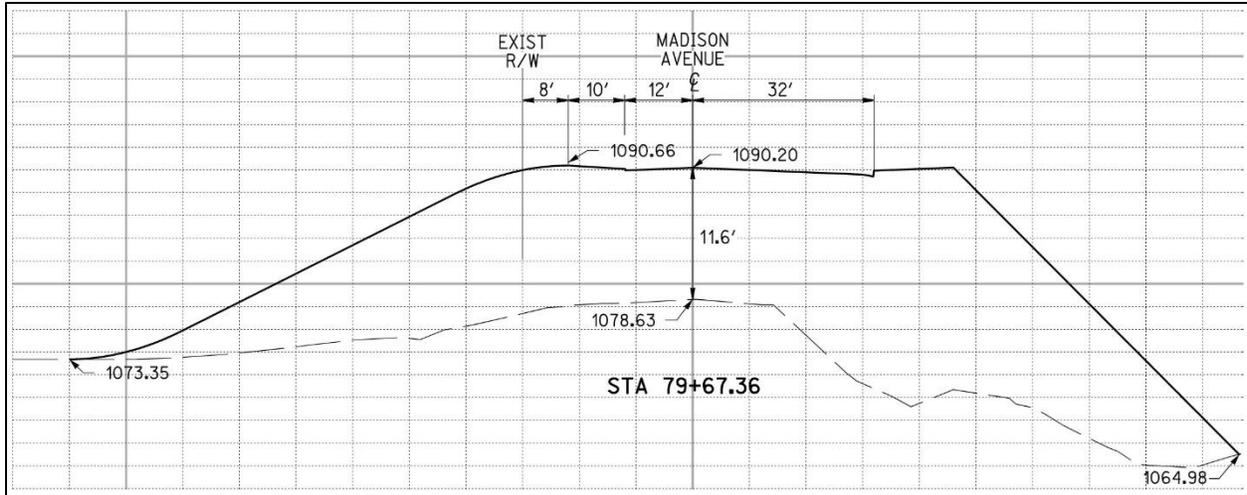


Figure 4e: Cross-Section in Location of Maximum Fill Slope

Completion of the proposed Project would require grading within an approximately 15-acre area (approximately 9 acres within, and 6 acres outside of the existing ROW). The new ROW acquisition would occur prior to initiation of construction activity. Additional ROW may be required for temporary access during construction and easements.

Additional development associated with the proposed Project would include:

Streetlights: Approximately 8 streetlights (32 feet in height) would be required at cross street intersections (where warranted for safety).

Sidewalks: Approximately 3,200 linear feet of sidewalks would be provided adjacent to existing developed properties along Madison Avenue.

Utilities: Utilities would be installed within the roadbed during construction activities, including but not limited to water, sewer, gas, electrical, and storm drains, to provide for efficient and cost-effective development. Except for storm drains, utilities would be installed per separate plan by the respective utility provider.

Stormwater Drainage Facilities and Storm Drain Crossings: Stormwater drainage facilities would be developed where necessary for efficient and effective off-site conveyance, consistent with the City of Murrieta Stormwater Pollution Prevention Plan.

Water quality features associated with stormwater drainage facility would include, but not be limited to the following:

- 1) Biofiltration Basins (Rock Gardens) in Parkway
- 2) Rock Swales

Project Construction: Anticipated to commence in 2027 and is anticipated to require approximately 18 months for completion. Access would be maintained for existing businesses, churches, and residences along existing Madison Avenue throughout construction activity.

B. Western Water, Water and Sewer Line Improvements

The Western Water component of the Project proposes to install, within the City right-of-way in the South Madison Avenue Business Corridor, approximately:

- 5,400 linear feet (LF) of 12-inch (5,150 LF) and 8-inch (250 LF) waterline; and
- 5,000 LF of 8-inch (3,700 LF), 10-inch (940 LF), and 12-inch (360 LF) sewer line.

Water Line. The new 5,400 LF, 8/12-inch diameter PVC water main line would be located beneath Madison Avenue from Guava Street to Elm Street, terminating at property lines. New fire hydrants, valves, and service lines would be installed concurrently with the new main line. The new line would replace 1,300 LF of 12-inch diameter PVC water main line which would be removed as part of the project. (This segment is part of the District's Capital Improvement Project Number 2 which consists of water lines north of Murrieta Creek (located approximately one-half mile southwest of the project site).

Sewer Line. The new sewer line would consist of two segments as follows:

- a 3,700 LF, 8-inch diameter PVC sewer main located beneath Madison Avenue from approximately 2,000 feet south of Guava Street to Elm Street Avenue (This segment is the District's Capital Improvement Project Numbers 23 and 24 which consist of the construction of 3,287 feet of 8-inch sewer main along Madison Avenue from Elm Street to 679 feet northwest of Fig Street); and
- a 1,300 LF, 10/12-inch diameter PVC sewer main located beneath Fig Street (connecting to the existing Eastern Municipal Sewer line), from Madison Avenue to approximately 300 feet southwest of Jefferson Avenue (This segment is the District's Capital Improvement Project Number 18 which consists of the construction of 1,265 feet of 10-inch sewer main along Fig Street from 325 feet southwest of Jefferson Avenue to Madison Avenue).

Each of these segments would terminate at property lines. New manholes, and service lines would be installed concurrently with the new main lines.

The new facilities would follow the design criteria outlined in the Western Developer Handbook.

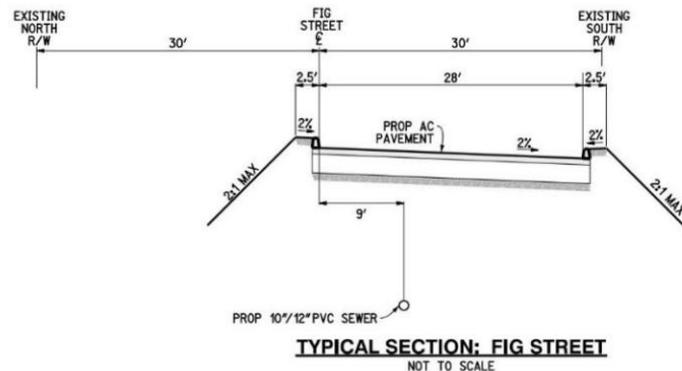
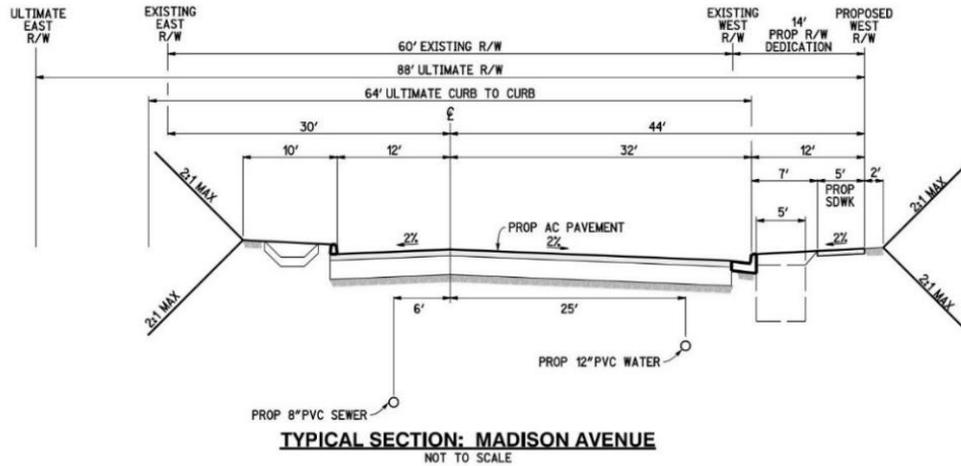


Figure 5: Typical Water and Sewer Line Sections

2.4 CONSTRUCTION METHODS

A. City of Murrieta Madison Avenue Street Improvements

Grading. Grading would be necessary for construction of the roadway and would extend beyond the ROW, incorporating 2:1 cut and fill slopes and retaining walls, if necessary, to comply with standard engineering practices and design criteria in accordance with the City’s Grading Ordinance. Estimated

earthwork at the current 70% project design stage would be 81,000 cubic yards of fill and 37,400 cubic yards of cut with a net import of 43,700 cubic yards of fill material. Maximum depth of cut would be 20 feet from existing grade; maximum height of fill would be 30 feet above existing grade. No export is proposed. Imported fill material would consist of clean soils obtained from an approved, permitted source based on availability and proximity at the time the fill is needed.

Pavement. Proposed pavement would be asphalt concrete (AC) covering an area of approximately 7.2 acres (314,000 square feet). This total would consist of approximately 5,700 linear feet of 6-inch AC Berm, 6,400 LF of 6-inch curb and gutter, and 31,000 square feet of 4-inch concrete sidewalk.

Retaining Walls. Depending on ROW acquisition, approximately 650 linear feet of retaining wall ranging in height from 4-feet to 17-feet, may be required. All retaining walls exceeding 72-inches in height and eight-foot in length shall include at least one of the following elements:

- a) Landscape Screening (e.g., vines, cascading plants)
- b) Decorative block (e.g., architectural patterns, exposed aggregate)
- c) Façade treatment (e.g., textured surfaces, color, design motifs)

In addition, any walls exceeding a continuous 600-square feet in surface area shall also incorporate either:

- a) decorative features (e.g., medallions, panels); or
- b) a repeating design motif.

Wall treatment shall be at the discretion of the City Engineer and may include any combination of the elements identified above and may be incorporated into the wall design.

Staging and Laydown Areas. A construction staging area would be located within the public ROW, or at an adjacent disturbed vacant lot in the immediate alignment vicinity. Staging and laydown areas would be located outside of riparian areas, sensitive plant communities, and other protected resource areas.

Construction Employees. On-site employees required to implement the proposed Project would range from two to thirteen depending on the activity.

Equipment List. Equipment necessary to implement the proposed Project would consist of Tractors, Dozers, Motor Grader, Pavement Grinder, Pulverizer, Excavator, Water Truck, Paver, Loaders, Stencil

Truck, Striping Truck, Berm Machine, Dump Trucks, Roller, Semi-Lowbed Trucks, Marker Truck, Pick Up Trucks, Crew Trucks, Forklift, Scraper, Sweeper, Distributer, Shuttle Buggy, Concrete Pump, Generators, Air Compressors, and Compactor.

Vehicle/Equipment Storage and Maintenance. All vehicle/equipment storage and maintenance activities, including refueling, would be located within the designated staging areas.

Access. Temporary access roads would be constructed on Guava Street, Monroe Avenue, Newton-Azrak Street, Fig Street, Larchmont Street, and Hoover Street to provide alternative access throughout construction. These minimum-width (20 to 24 feet) access roads would be all-weather surface (i.e., gravel), located outside of riparian areas, sensitive plant communities, and other protected resource areas. A potential exception would occur on portions of the segment Newton-Azrak Street to Monroe Avenue to Guava Street, where required improvements impacting protected resources would be subject to biologist review and design specifications.

Traffic Control. Project plan includes traffic control plan sheets which provide detour routes around active construction areas. Construction along the Madison Avenue corridor will be performed in various phases to minimize the duration of residents and businesses. Traffic control (for all property owners with Madison Avenue frontage) would follow the provisions of the WATCH Manual.

Solid Waste. All solid waste generated by the proposed Project (including but not limited to asphalt, concrete, earthen material, and vegetation) would be removed from the site and recycled to the maximum extent feasible.

Post-Construction Site Restoration. Upon completion of the proposed Project, all disturbed areas outside of the developed areas would be restored to pre-existing (or improved) conditions, including the removal of road base materials placed on existing unpaved roads during temporary access provisions.

Project Operations and Maintenance Activities. The new constructed street improvements will be incorporated into the City's maintenance program which is funded through the City's Biennial Operating Budget.

B. Western Water, Water and Sewer Line Improvements.

Earthwork. Earthwork for the proposed Western Water component (in addition to the earthwork required for the Madison Avenue Street Improvements component) would consist of approximately 5,140 cubic yards of grading as follows:

- a) additional trenching during the construction of the City's Madison Avenue Street project, estimated at approximately 5,100 cubic yards of excavation and recompacting; and
- b) approximately 40 cubic yards of grading (20 cubic yards cut / 20 cubic yards fill / 0 cubic yards export) in the Fig Street corridor (for approximately 200 feet on each side of Jefferson Avenue).

Demolition. The majority of Western Water improvements would be located beneath the street improvement project boundaries. The 200-foot sections north and south of Jefferson Avenue on Fig Street would require minimal demolition during installation trenching.

Construction Phasing. Construction activities for the Western Water component would fall within the footprint of the City's Madison Avenue Street Improvements project, except on a segment of Fig Street approximately 300 feet northeast of the intersection with Jefferson Avenue and continuing approximately 300 feet to the southwest through the intersection (See Figure 3). Construction phasing will be concurrent for both projects and coordinated in the same construction schedule. Project construction is anticipated to commence in 2027 and is anticipated to require approximately 18 months for completion. Access would be maintained for existing businesses, churches, and residences along existing Madison Avenue throughout construction activity.

Installation. Installation would be via open-trench construction methods and in accordance with the District standard detail W-1540. Construction would occur in a linear fashion and would be contained within one lane of traffic (approximately 12-foot wide). In the event construction activities must extend beyond a single lane, a Traffic Control Plan would ensure that no full road closures would occur. Excavation equipment would straddle the trench and deposit spoil material into trucks for storage outside the roadway or stockpiled behind the open trench within the closed traffic lane. The pipe would be staged along the water main and gravity sewer alignments, typically within the road shoulder and outside the trench excavation path. Per the District standards, the maximum length of trench that would be opened or partially opened at any one time would be limited to 500 LF. Upon completion of a shift, the contractor would be responsible for backfilling and/or plating open excavations, as well as cleaning, removing barricades, and removing equipment from the roadway.

Staging and Laydown Areas. Construction staging areas would be shared with the City's Madison Avenue Street Improvements project, located either within the future Madison Avenue ROW, or at an adjacent disturbed vacant lot in the immediate vicinity, with an unimproved area south of Madison Avenue and Golden Gate Circle serving as a potential laydown area. Staging and laydown areas would be located outside of riparian areas, sensitive plant communities, and other protected resource areas (See Figure 4).

Construction Employees. On-site employees required to implement the proposed Project would range from one to seven depending on the activity.

Equipment List. Equipment necessary to implement the proposed Project would consist of Excavator, Water Truck, Loaders, Dump Trucks, Pick Up Trucks, Crew Trucks, Forklift, Generators, and Air Compressors.

Vehicle/Equipment Storage and Maintenance. All vehicle/equipment storage and maintenance activities, including refueling, would be located within the designated staging areas.

Access. Temporary access roads would be constructed on Guava Street, Monroe Avenue, and Newton-Azrak Street. These minimum-width (24-foot) access roads would be all-weather surface (i.e., dirt/gravel), located outside of riparian areas, sensitive plant communities and other protected resource areas. Existing access roads would be used at Fig Street, Larchmont Street, and Hoover Street to provide additional parcel access throughout construction.

Traffic Control. Traffic control (for all property owners with Madison Avenue frontage) would follow the provisions of the WATCH Manual.

Solid waste. All solid waste generated by the proposed Project (including but not limited to asphalt, concrete, earthen material, and vegetation) would be removed from the site and recycled to the maximum extent feasible.

Post-Construction Site Restoration. Upon completion of the proposed Project, all disturbed areas outside of the developed areas would be restored to pre-existing (or improved) conditions.

Project Operations and Maintenance Activities. The newly constructed water and sewer line improvements will be incorporated into Western Water's maintenance program.

3 ENVIRONMENTAL SETTING

3.1 EXISTING LAND USE

3.1.1 On-Site Land Uses

The proposed Project site consists of 1) the Madison Avenue roadway corridor between the intersections of Guava Street and Elm Street; 2) the intersecting Newton-Azrak Street, Fig Street, Larchmont Lane, and Elm Street between Jefferson Avenue and Hoover Street; and 3) temporary construction detour routes on Fig Street, Hoover Street, Elm Street, Guava Street, Monroe Avenue and Newton-Azrak Street.

Utilities within the existing 60-foot-wide Madison Avenue ROW consist of 1) overhead power lines (along the entire length of the project); 2) a water line (from the north to approximately 1,300 feet south of the Guava Street Intersection); 3) a sewer line (from the north to approximately 2,000 feet south of the Guava Street intersection); 4) a gas line (from the Guava Street intersection to the Border Control facility); and 5) a fiber optic cables (along the entire length of the project site, either on the overhead electric poles, or underground, or both). Various existing storm drain facilities are located along the project reach to convey storm water drainage from the east side of the roadway to the west.

NOTE: The southern terminus of the proposed Project would be located a minimum of 300-feet to the north of the location of a planned bridge. Upon completion, this future bridge would span a previously undeveloped section of Warm Springs Creek, which is defined as a “Constrained Linkage” on the Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Warm Creek Springs includes riparian vegetation which supports a variety of plant and animal species.

The referenced bridge is neither a part, nor a necessary component of the proposed Project, and would be approved through a separate, future permit process.

3.1.2 Surrounding Land Uses

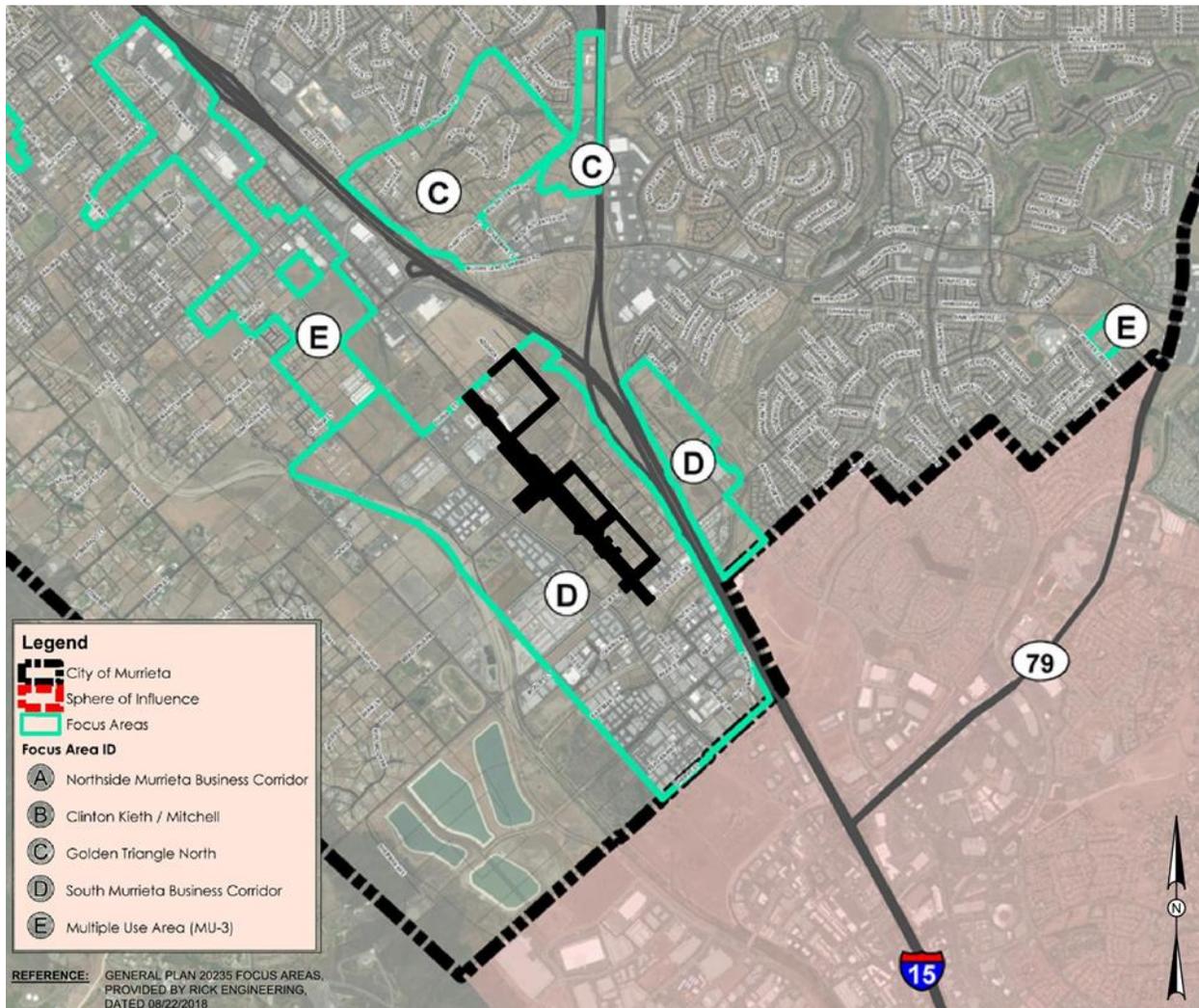


Figure 6: South Murrieta Business Corridor

The entire area surrounding the proposed Project site is located within the Murrieta City Limits, in the South Murrieta Business Corridor. The proposed Project site consists primarily of vacant land, with single family dwellings and accessory structures located primarily along the northeast side of Madison Avenue. An exception is the area located immediately southeast of Guava Street, which is fully developed with a regional learning center in the southwest corner of the Madison Avenue/Guava Street intersection and an industrial materials distribution facility immediately to the southwest, and a mix of uses in the southeast corner (wholesale building supplies, self-storage facility, church), with a US Customs and Border Protection facility immediately to the southeast. See Figure 7.

4 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed Project. The environmental analysis in this section is patterned after the Appendix G Environmental Checklist Form recommended in the State Clearinghouse CEQA Guidelines. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the Project's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are referenced by letter, the impact level is identified, and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of a project. To each question, there are four possible responses:

- **No Impact.** The project will not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The project will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Less Than Significant With Mitigation Incorporated.** The project will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

4.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

4.1.1 Setting

Physical. The proposed Project site, which encompasses approximately 93 acres (including roadway improvements, temporary staging and laydown areas, and temporary detour construction route), is located within the portion of the South Murrieta Business Corridor from Guava Street to approximately 900 feet southeast of Elm Street. The area is not classified as a Scenic Corridor within the City’s *General Plan Circulation Element*. Existing development within the South Murrieta Business Corridor (See Figure 6) is comprised of a mix of commercial, institutional and residential uses, sporadically distributed throughout the area. Interstate 15, located approximately 1,300 to 2,200 feet northeast of the project site, is listed by Caltrans as *Eligible*, but not officially Designated as a State Scenic Highway (Caltrans, 2018).

The existing Madison Avenue roadway within the proposed Project site consists of a two-lane roadway which generally follows existing topography ranging in grade from 1% to 8%. Within this area, approximately 33 acres are developed with structures and paving; 28 acres are disturbed and undeveloped; 22 acres are non-native grassland; 9 acres are Coastal sage scrub; and one acre contains riparian vegetation.



Project Site, looking north to south, through Madison Avenue/Guava Street intersection.



Project Site, looking south to north, slightly north of Madison Avenue/Elm Street intersection.



**East of the Project Site, looking southwest to northeast
(from slightly north of Madison Avenue/Elm Street intersection)**



**West of the Project Site, looking northeast to southwest
(from center of site)**



Fig Street
(looking east to west through Jefferson Avenue intersection)

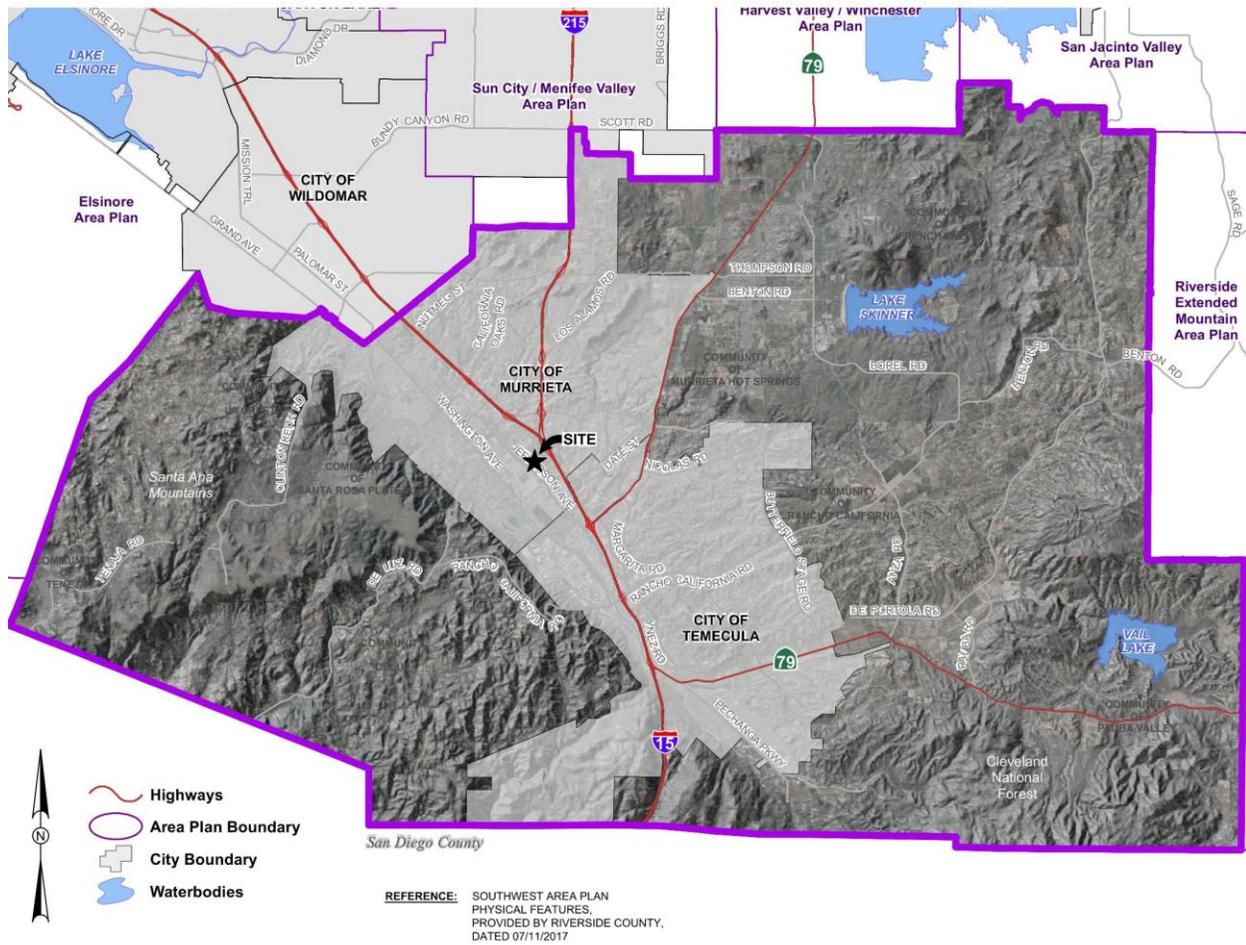


Figure 8: Physical Features Surrounding the Proposed Project Site

Foothills and mountainous areas are visible from many locations within the County of Riverside (County) and create a varied visual background within many local communities, including the City. The nearest topographic feature to the Project site, the Santa Rosa Plateau, is located approximately 3.5 miles to the west. See Figure 8.

Sensitive light receptors in and around the City and the Sphere of Influence are generally represented by residential uses, natural wildlife habitat areas and wildlife corridors, and open space lands adjacent to existing or planned development. The Mount Palomar Observatory is located approximately 23 miles from the project site, which is located within Zone B (a circular area between 15 and 45 miles from the observatory) of Riverside County Ordinance No. 655 (restricting the permitted use of certain light fixtures emitting into the night sky undesirable light rays which have a detrimental effect on astronomical observation and research). See Figure 9.

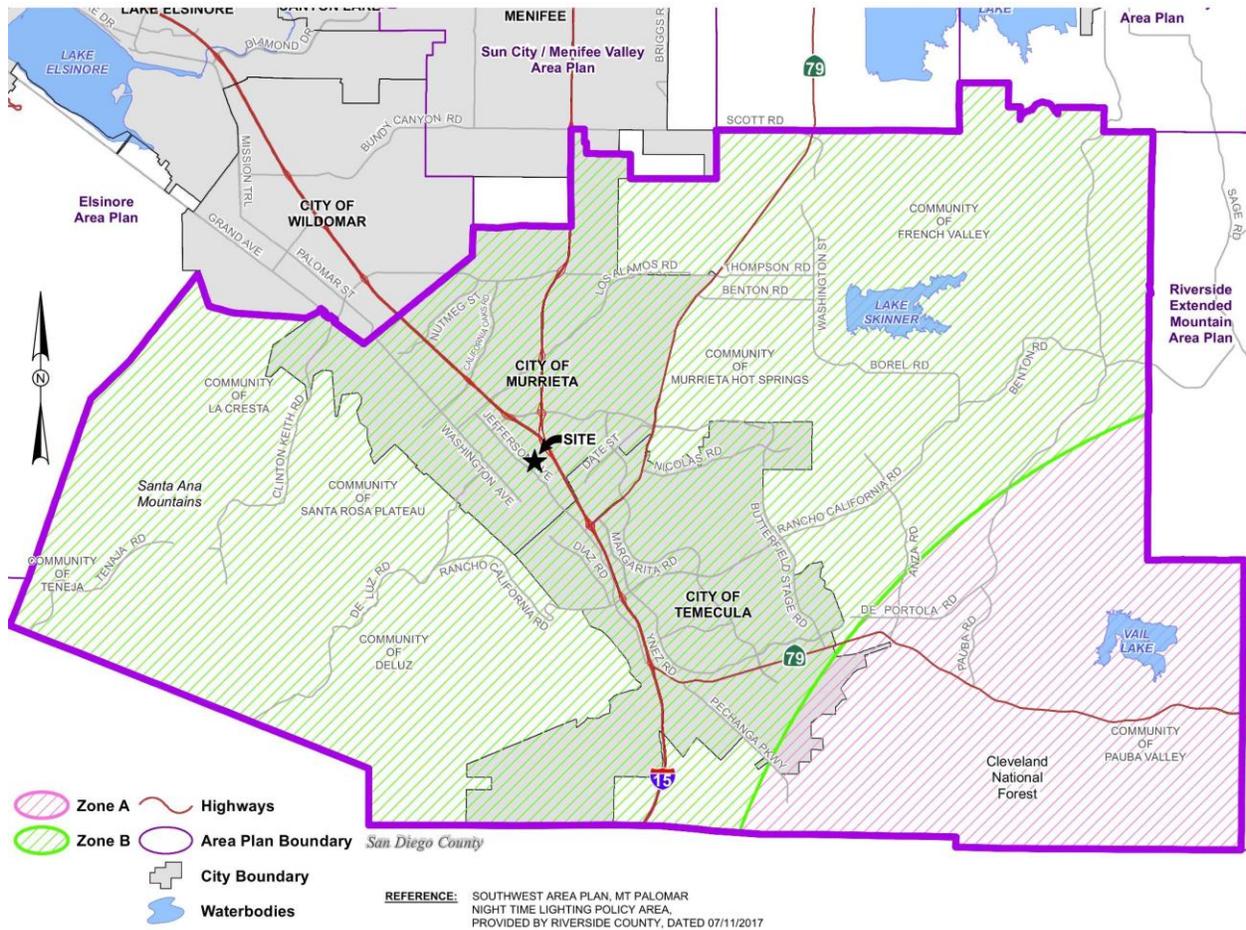


Figure 9: Mount Palomar Night Time Lighting Policy Area

REGULATORY

STATE

California Scenic Highways and Historic Parkways Program. The California Scenic Highways and Historic Parkways Program was created in 1963 to preserve and protect highway corridors located in areas of outstanding natural beauty from changes that would diminish the aesthetic value of the adjacent lands. The State of California Department of Transportation (Caltrans) maintains its State Scenic Highways and Historic Parkways Program, through which segments of the State highway system are designated as being of scenic value or interest. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Interstates, state highways, byways, and parkways are eligible for designation or for recognition as eligible for designation. The Program is governed by the regulations found in the California Streets and Highways Code, Section 260 et seq.

LOCAL

County of Riverside General Plan. The County of Riverside General Plan (CRGP) acknowledges that hillside development requires careful siting, grading, and/or design measures to maintain and enhance the scenic quality of the County's aesthetic resources. The CRGP identifies the importance of the County's natural visual resources, including low-lying valleys, mountain ranges, rock formations, rivers, and lakes, and acknowledges that views of these features are frequently experienced by travelers along the County's roadways. The CRGP more specifically addresses the regulation of scenic corridors within the Circulation, Land Use, and Multipurpose Open Space Elements. The CRGP Circulation Element officially recognizes several County roadways as either Eligible or Designated State or County Scenic Highways. I-15 is recognized as an Eligible State Scenic Highway and Interstate 215 (I-215) is recognized as an Eligible County Scenic Highway. The CRGP establishes policies to conserve the County's significant scenic resources along designated scenic highways for the long-term and to guide future development along these roadways to avoid disruption of or detract from the existing scenic quality. It is the County's policy to preserve scenic routes that have exceptional or unique visual features in accordance with Caltrans' Scenic Highways Plan (Circulation Element Policy C 19.1). The CRGP Land Use Element includes goals, objectives, and policies aimed at hillside protection to ensure that the design and appearance of proposed landscaping, structures, equipment, signage, and grading are compatible with the surrounding visual setting, and to provide long-term protection of the County's hillsides as an important aesthetic resource. The Element identifies various policies, to conserve significant scenic resources along designated scenic highways for future generations and to manage development along scenic highways and corridors so as not to detract from the area's scenic quality.

County of Riverside Ordinance No. 655. Ordinance No. 655 regulates the use of certain light fixtures emitting into the night sky undesirable light rays which have a detrimental effect on astronomical observation and research.

CITY OF MURRIETA

Murrieta General Plan 2035. The Murrieta General Plan includes goals, objectives, and policies intended to protect significant scenic resources and reinforce the importance of maintaining such resources that contribute to the unique visual and historic character of the Planning Area and surrounding environment, as future development occurs.

Murrieta Development Code, Title 16 of the Murrieta Municipal Code (MDC). The Murrieta Development code provides specific development standards that influence the City's scenic vistas and visual character and restrict lighting.

4.1.2 Thresholds

GENERAL PLAN 2035 SUPPLEMENTAL EIR AND 2011 EIR

Aesthetics and light impacts resulting from the implementation of General Plan 2035 may be considered significant if they would result in the following:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create new sources of substantial light or glare, which would adversely affect day or nighttime views in the area.

According to the SEIR, approximately 36 percent of the City (approximately 7,750 acres) is currently vacant. Implementation of General Plan 2035 could adversely impact the City vistas if future development within these vacant areas results in major alterations in topography or is not sufficiently integrated with the surrounding hillside environment. However, Land Use Element Goal LU-1 seeks to provide a complementary balance of land uses throughout the community that meets the needs of existing residents and businesses as well as anticipated growth, and achieves the community's vision.

Future development under the General Plan 2035 is subject to compliance with the regulations, guidelines, and development review process set forth in the MDC, as well as the General Plan 2035 goals and policies. These regulations and guidelines are intended to diminish conflicts between urban development and visual resources and preserve hills and ridges. Hillside development within the City involves careful siting, grading, and design to minimize exposure and preserve the City's vistas. Additionally, individual assessments are conducted for potential project-specific impacts to scenic vistas, with the inclusion of mitigation measures where necessary to reduce potential impacts to less than significant levels. Therefore, future development according to the proposed General Plan 2035 is not anticipated to significantly impact the City's scenic vistas.

Section 5.3 of the 2011 Certified EIR evaluated visual quality within the City and Sphere of Influence and potential for visual impacts that could result from implementation of the 2011 General Plan. Visual impacts include long term and temporary changes in visual quality related to aesthetics, light, and glare, noting that the City's development pattern has largely been influenced by its transportation infrastructure system, which also contributes to its visual character and quality. The 2011 Certified EIR determined that

future development pursuant to the 2011 General Plan would result in less than significant impacts to aesthetics, light, and glare, or potentially significant impacts that would be reduced less than significant after mitigation.

The 2035 SEIR determined that the General Plan update would not change the potential impacts or mitigation measures discussed in the 2011 Certified EIR. Future development pursuant to the 2035 General Plan would result in development of the same land that was analyzed in the 2011 Certified EIR with the same potential impacts to visual character resulting from future construction.

The following Mitigation Measures Identified in the Certified EIR are applicable to the proposed Project:

AES-1 For future development located in or immediately adjacent to residentially zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.

AES-2 Construction documents shall include language requiring that construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.

AES-3 Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.

Murrieta Development Code, Title 16. While the General Plan provides long-range and broad categories of land use, Title 16 of the Murrieta Municipal Code, Development Code (MDC), provides specific development standards that influence the City's scenic vistas and visual character, and restrict lighting. The MDC implements the broad Murrieta General Plan goals and policies by classifying and regulating the specific uses of land and structures within the City. Among its many objectives, the MDC is intended to:

- Implement the goals, objectives, policies and programs of the Murrieta General Plan, and manage future growth and development in compliance with that plan;

- Provide standards for the orderly growth and development of the City that will maintain the community's rural/nonurban characteristics in appropriate locations;
- Require high quality planning and design for development, that enhances the visual character of the City, avoids conflicts between land uses, and preserves the scenic qualities of the City;
- Conserve and protect the natural resources of the City, its natural beauty and significant environmental amenities;

MDC Chapter 16.18, General Property Development and Use Standards

The purpose of this chapter is to ensure that all development produces an environment of stable and desirable character that is harmonious with existing and future development, and protects the use and enjoyment of neighboring properties, consistent with the General Plan.

The standards specified in this section that influence the visual character of a development site address: Access; Lighting (refer to the Lighting section below); Mount Palomar Lighting Standards (refer to the Lighting section below); Screening and Buffering; Separation and Privacy Standards for Residential Structures; Setback Regulations and Exceptions; Solid Waste/Recyclable Materials Storage; Street Design and Improvements; and Undergrounding of Utilities.

MDC Section 16.18.100, Lighting

Pursuant to this Section, exterior lighting shall be:

1. Architecturally integrated with the character of adjacent structure(s);
2. Directed downward and shielded so that glare is confined within the boundaries of the subject parcel;
3. Installed so that lights do not blink, flash, or be of unusually high intensity or brightness.
4. Appropriate in height, intensity, and scale to the uses they are serving.

Outside and parking lot lighting shall not exceed 0.3 footcandles at residential property lines. As specified in MDC Section 16.18.100.C, Shielded Lighting, light sources shall be shielded to direct light rays onto the subject parcel only. The light source, whether bulb or tube, shall not be visible from an adjacent property.

This section does not apply to residential uses, sign illumination, traffic safety lighting, or *public street lighting* <emphasis added>.

MDC Section 16.18.110, Mount Palomar Lighting Standards

The purpose of this Section is to restrict the use of certain light fixtures emitting undesirable light rays into the night sky that have a detrimental effect on astronomical observation and research. The Dark Sky Zone is defined as the circular area 30 miles in radius centered on the Palomar Observatory. The Ordinance establishes general requirements that apply within the Dark Sky Zone pertaining to the preferred source, shielding, hours of operation, and outdoor advertising display. The Ordinance also identifies three classes of lighting (Class I, II, III) and requirement for each lamp source and shielding of light emissions for outdoor light fixtures.

The purpose of MDC Section 16.18.110, Mount Palomar Lighting Standards, is to restrict the use of certain light fixtures emitting into the night sky undesirable light rays that have a detrimental effect on astronomical observation and research. To this end, all future development within the Dark Sky Zone (the circular area 30 miles in radius centered on the Palomar Observatory) would be subject to compliance with the general, lamp source, and shielding requirements established by

MDC Chapter 16.24, Hillside Development

This Chapter regulates development in areas that because of their topography require special consideration to ensure that they are developed in a way that substantially maintains their natural character and aesthetic values. This Chapter also provides measures for the long-term protection of existing natural topography and scenic values whenever feasible through the regulation of grading activities, intensity/density of proposed development, structural massing, building height, and other characteristics, in order to minimize potential impacts on the existing viewshed. Hillside development standards and guidelines are established for development in the visually sensitive hillside areas, in order to minimize the adverse impacts of grading and promote the General Plan goals and policies. Additionally, the proposed General Plan 2035 Conservation Element and Parks and Open Space Element have established goals to preserve open space. Namely, it is the City's goal (Goal CSV5) to protect hills and ridges for their environmental and aesthetic values. It is also the City's goal (Goal ROS-7) to plan open space areas to protect, conserve, and utilize resources of unique character and value for the community. All future development would be subject to compliance with the policies established in furtherance of these City goals.

MDC Section 16.16.10.C.3, SHO (Scenic Highway) Overlay District.

The SHO Overlay is applied to the 1-15 and 1-215 corridors, in order to provide protection for scenic qualities of historic significance. All future development within these corridors would be subject to

compliance with the general development standards and design standards established in MDC Sections 16.16.10.C.1 and 16.16.10.C.3, in addition to the standards and regulations of the primary zoning district.

4.1.3 Impact Discussion

- a. **Less than Significant Impact.** Long-range views of the scenic hillsides, including the Santa Rosa Plateau, surrounding the City are currently available to travelers on Madison Avenue. The proposed Project would substantially level the roadway, eliminating grade changes that currently impair long-range views in various locations. Western Water improvements would be installed beneath the proposed roadway.

General Plan 2035 identifies five areas targeted for land use change at key locations along freeway corridors that are suitable for major land development and redevelopment, one of which is the South Murrieta Business Corridor Focus Area. This area's character is predominantly developed with business park and industrial uses; however, single-family homes are scattered throughout the area. Vacant or underutilized properties are present in this area. The EIR concludes that future development within the proposed Focus Areas, including the South Murrieta Business Corridor, would not adversely impact the City vistas.

Long-term impacts to scenic vistas would not be decreased as a result of the proposed Project. Impacts, including residual impacts, would be less than significant.

- b. **No impact.** There are no historic structures or substantial rock outcroppings within the project boundaries.

- c. **Less than Significant with Mitigation Incorporated.**

Short-term Impacts. Short-term construction impacts would result in temporary adverse impacts within the view corridor as a result of substantial earthwork and paving and associated equipment. Adherence to Mitigation Measures AES-1, AES-2, and AES-3 would ensure that potentially significant impacts from temporary construction activities would be less than significant.

Long-term Impacts. The proposed Project would follow the existing roadway, increase pavement and altering existing natural grades. The new roadway and associated improvements would substantially alter the visual character of the corridor, changing it from a rural, country road to an

urban streetscape consisting of partial completion of a future four-lane secondary highway, by way of a two-lane roadway with painted median and sidewalk on one side, pursuant to General Plan objectives and standards. Accompanying development would consist of flood control structures and streetlights. Grading and earthwork would require cut and fill slopes, including retaining walls. The proposed Project Description includes provisions for: 1) re-seeding of all exposed/denuded slopes with an approved plant mix following cut and fill activities; 2) inclusion of decorative treatment/elements on all retaining walls exceeding 72-inches in height and/or 8-feet in height.

Aesthetic/Visual Resource impacts analyzed in the General Plan EIR determined that:

1. construction-related activities would be short-term and less than significant;
2. future development accommodated by the General Plan would be evaluated on a project-by-project basis in order to verify compliance with the provisions of Title 16 of the Murrieta Municipal Code, Development Code (MDC), ensuring orderly growth and development that would maintain the community's rural/nonurban characteristics in appropriate locations; and
3. compliance with the MDC would result in high quality planning and design for development, that enhances the City's visual character, avoids conflicts between land uses, and preserves the City's scenic qualities. Long term impacts would be less than significant. Residual impacts would be less than significant.

- d. **Less than Significant Impact.** Lighting effects are associated with the use of artificial light during the evening and nighttime hours. A primary source of light is from exterior sources including street lighting. Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can cause disturbances. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light sources, presence of barriers or obstructions, type of light source, and weather conditions. Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light sources of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly

reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

Short-term Impacts. Project construction lighting would be directed to the work site to avoid unnecessary off-site projection and would provide a level of lighting that is appropriate for work and safety for workers. Construction lighting would be shielded and/or directed away from sensitive receptors to minimize lighting impacts during construction.

Long-term Impacts. The proposed Project would include streetlights and directional lighting of sufficient brightness to provide for a safe and secure roadway for motorists, pedestrians, and bicyclists, generating additional light and glare in the area.

Construction lighting and project design would conform to the City's General Plan and Municipal Code as well as the County of Riverside Palomar Light Pollution Ordinance No. 655. Adherence to these provisions would ensure that adverse lighting impacts of the proposed Project are less than significant. Residual impacts would be less than significant.

4.1.4 Mitigation and Residual Impacts

Adherence to the following measures would ensure that impacts to Visual Resources/Aesthetics would be less than significant. Residual impacts would be less than significant.

AES-1 Construction Equipment Staging and Appearance. For future development located in or immediately adjacent to residentially zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.

Plan Requirements/Timing: Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

AES-2 Construction Vehicles and Surrounding Streets. Construction documents shall include language requiring that construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.

Plan Requirements/Timing: Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

AES-3 Construction Worker Parking. Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.

Plan Requirements/Timing: Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

4.2 AGRICULTURE AND FORESTRY RESOURCES

<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the</p>				✓

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

4.2.1 Setting

The proposed Project site is located within the South Madison Avenue Business Corridor and is designated Other Lands on the General Plan 2035 EIR Important Farmlands map (See Figure 10 below). The current Department of Conservation Important Farmlands map designates the entire project site and surrounding area as Urban and Built-Up Land, and Nonagricultural or Natural Vegetation. There are no active farmlands or Williamson Act contracted lands onsite. An isolated sliver of designated Farmland of Local Importance is located within the drainage corridor located adjacent to the northeastern portions of the proposed Project site (along Guava Street, Fig Street, and Monroe Avenue).

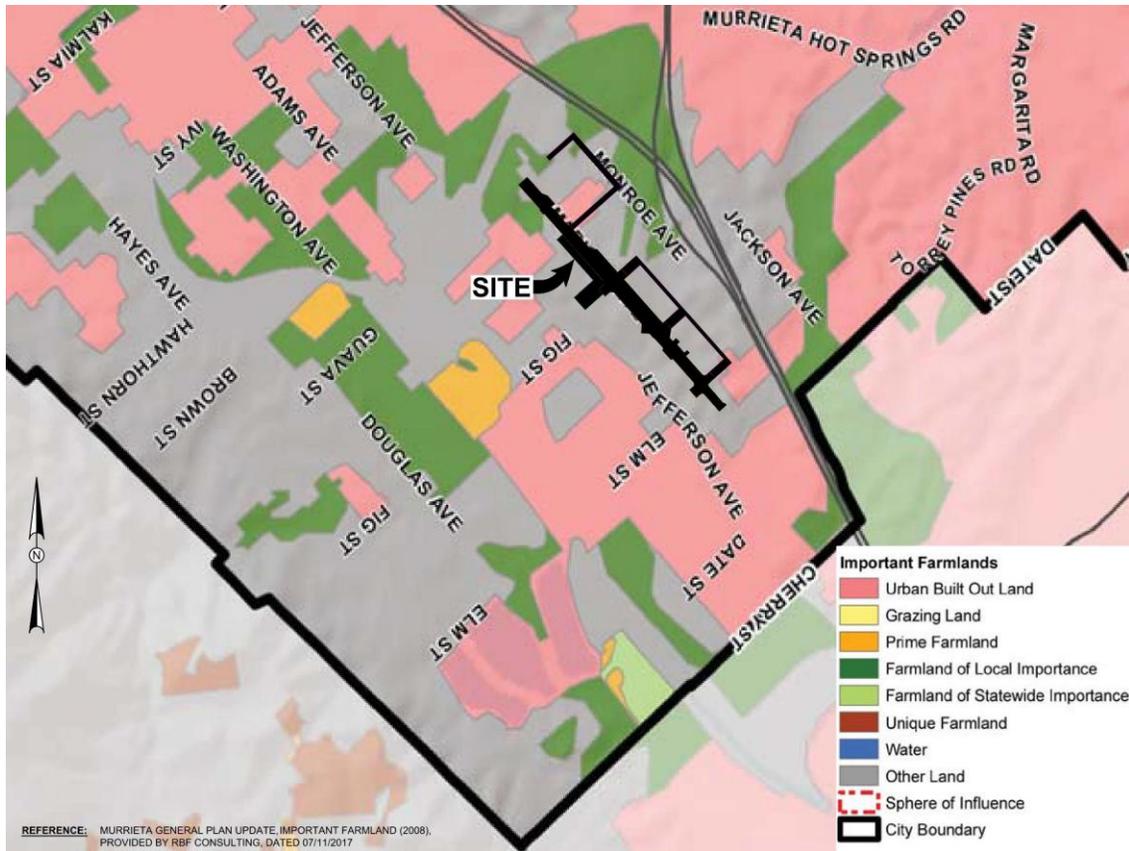


Figure 10: Important Farmlands

4.2.2 Thresholds

Pursuant to Appendix G of the CEQA Guidelines, impacts to agricultural resources may be considered significant if they would result in the following:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

4.2.3 Impact Discussion

- a, b. **Less than significant impact.** The proposed Project would improve the existing Madison Avenue roadway to Secondary Highway standards in the South Murrieta Business corridor, consistent with the adopted General Plan. Western Water sewer and water lines would be installed beneath the proposed roadway. Except for an isolated sliver of land within a drainage corridor in the northeast portion of the site, there are no designated farmlands within the project area. This sliver is the southernmost extent of a larger contiguous area which extends beyond IS 15 and 215 to the northeast. The proposed Project would not conflict with lands zoned for agriculture or subject to Williamson Act contracts. The proposed Project would have no effect on nearby roadways adjacent to City-designated farmlands.

- c, d. **No impact.** There are no forests, or designated forest lands, on or in the vicinity of the proposed Project area.

- e. **Less than significant impact.** While the proposed Project would contribute to increased urbanization within a currently underdeveloped area, this development is fully anticipated in the adopted General Plan. There are no active agricultural activities in the project vicinity which would be adversely affected by the proposed Project.

4.2.4 Mitigation

No mitigation is required. Residual impacts would be less than significant.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			✓	
c. Expose sensitive receptors to substantial pollutant concentrations?			✓	

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

The following discussion is excerpted from the Air Quality and Greenhouse Gas Emissions Impact Assessment analysis prepared by Helix Environmental Planning, Inc. 05/06/24 (See Appendix 6).

4.3.1 Setting

Physical. The proposed Project site is located within an existing roadway network with multiple adjacent sensitive land uses. The closest existing sensitive receptor to the Project site is a school located along the proposed widening of Madison Avenue. Residential land uses are also located along this road segment. The site is located within the South Coast Air Basin (SCAB), which consists of all or part of four counties: Los Angeles, San Bernardino, Riverside, and Orange. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills. It is bound by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light, average wind speeds.

The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. Winds in the Project area are usually driven by the dominant land/ sea breeze circulation system. Regional wind patterns are dominated by daytime onshore sea breezes. At night, the wind generally slows and reverses direction traveling toward the sea. Local canyons can also alter wind direction, with wind tending to flow parallel to the canyons. The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. High pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine influenced air near the ground surface, and resulting in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog. The basin-wide occurrence of inversions at 3,500 feet above mean sea level or less averages 191 days per year (SCAQMD 1993).

REGULATORY

Federal Clean Air Act. Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe, to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. The U.S. Environmental Protection Agency (USEPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990, has established national ambient air quality standards (NAAQS) for several air pollution constituents known as criteria pollutants, including: ozone (O₃); carbon monoxide (CO); coarse particulate matter (PM₁₀; particles 10 microns or less) and fine particulate matter (PM_{2.5}; particles 2.5 microns or less); sulfur dioxide (SO₂); and lead (Pb).

State As permitted by the Clean Air Act, California has adopted the more stringent California ambient air quality standards (CAAQS) and expanded the number of regulated air constituents.

Ground-level ozone is not emitted directly into the environment but is generated from complex chemical and photochemical reactions between precursor pollutants, primarily reactive organic gases (ROGs; also known as volatile organic compounds [VOCs]), and oxides of nitrogen (NO_x). PM₁₀ and PM_{2.5} are generated from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. In addition, PM₁₀ and PM_{2.5} can also be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere.

CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for the ambient air quality standards. An “attainment” designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once. The air quality attainment status of the SCAB is shown in Table 2, *South Coast Air Basin – Attainment Status*.

Table 1: South Coast Air Basin – Attainment Status

Pollutant	Federal Attainment Status	State of California Attainment Status
1-hour Ozone (O ₃)	(No federal standard)	Nonattainment
8-hour Ozone (O ₃)	Extreme Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment (Maintenance)	Attainment
Respirable Particulate Matter (PM ₁₀)	Attainment (Maintenance)	Nonattainment
Fine Particulate Matter (PM _{2.5})	Serious Nonattainment	Nonattainment
Nitrogen Dioxide (NO ₂)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Attainment
Visibility	(No federal standard)	Attainment

Source: SCAQMD 2016

As required by the California Clean Air Act, SCAQMD has published various air quality planning documents to address requirements to bring the District into compliance with the federal and state ambient air quality standards. The Air Quality Attainment Plans are incorporated into the State Implementation Plan, which is subsequently submitted to the USEPA.

As a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs).

The SCAB is currently in nonattainment for federal and/or state O₃, PM₁₀ and PM_{2.5} standards. Concentrations of all other pollutants meet state and federal standards.

Ozone is not emitted directly into the environment but is generated from complex chemical reactions between ROG_s, or non-methane hydrocarbons, and NO_x that occur in the presence of sunlight. PM₁₀ and PM_{2.5} arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations and windblown dust.

4.3.2 Thresholds

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to determine air quality impacts. The SCAQMD significance thresholds assess the regional and localized impacts of project-related air pollutant emissions and are as needed to appropriately represent the most current technical information and attainment status in the SCAB. SCAQMD Air Quality Significance Thresholds include: regional daily thresholds for short-term construction and long-term operational emissions; maximum incremental cancer risk and hazard indices for TACs; and maximum ambient concentrations for exposure of sensitive receptors to localized pollutants. A project with daily emission rates, risk values, or concentrations below these thresholds is generally considered to have a less than significant effect on air quality.

Toxic Air Contaminants (TACs). TACs are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2022a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a significant impact on California's population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2022a).

Sensitive Receptors. CARB and the Office of Environmental Health Hazard Assessment (OEHHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly

over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

4.3.3 Impact Discussion

- a. **Less than Significant Impact.** SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, economy, community development, and environment. Regarding air quality planning, SCAG has prepared the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), a long-range transportation plan that uses growth forecasts to project trends out over a 20-year period to identify regional transportation strategies to address mobility needs. These growth forecasts form the basis for the land use and transportation control portions of the AQMP. These documents are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. Both the RTP/SCS and AQMP are based, in part, on projections originating with County and City General Plans.

The two principal criteria for determining conformance to the AQMP are:

1. Whether the project would result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards; and
2. Whether the project would exceed the assumptions in the AQMP. With respect to the first criterion, the analyses presented below demonstrate that the Project would not generate short-term or long-term emissions that could potentially cause an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of air quality standards.

With respect to the second criterion, the proposed Project would improve and widen an existing roadway (and place water and sewer lines beneath the road surface) and would not result in population or employment increases and, therefore, would not exceed the growth projection assumptions in the AQMP. In addition, the proposed Project would install bicycle lanes and sidewalks along both sides of Madison Avenue. As part of the General Plan 2035, the City adopted an updated CAP, which includes 7 different Climate Action Strategies (CAS).

These improvements support CAS 3, Transportation and Mobility, through the following CAP measures:

- CIR-1.11 – Support the implementation of complete streets through a multi-modal transportation network that balances the needs of pedestrians, bicyclists, transit riders, mobility challenged persons, older people, children, and vehicles while providing sufficient mobility and abundant access options for existing and future users of the street system; and
- CIR-8.2 – Promote bicycle and pedestrian trails along major home to work and other travel routes (City 2020b).

Because the Project is consistent with the City’s General Plan, pursuant to SCAQMD guidelines, the proposed Project is considered consistent with the region’s AQMP. As such, proposed Project-related emissions are accounted for in the AQMP, which is crafted to bring the basin into attainment for all criteria pollutants. Accordingly, the proposed Project would be consistent with the projections in the AQMP, thus resulting in a less than significant impact.

- b. **Less than Significant Impact. Construction Emissions.** The Project’s construction emissions were estimated using the California Emissions Estimator Model, a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects.

Construction would require approximately 18 months to complete and was modeled to commence as early as January 2027. Construction activities would include site preparation, grading, installation of a sidewalk and bike lanes, installation of drainage and utilities, and paving. The proposed Project is anticipated to require the use of construction equipment such as tractors, loaders, backhoes, excavators, forklifts, generators, pumps, sweepers, pavers, rollers, graders, and other off-highway vehicles.

Completion of the proposed Project would require grading within an approximately 15-acre area, incorporating 2:1 cut and fill slopes and retaining walls as necessary to comply with standard engineering practices and design criteria in accordance with the City’s Grading Ordinance. Construction design features would be in accordance with South Coast Air Quality Management District (SCAQMD) Rule 403 Fugitive Dust Control Practices; requiring the use of an onsite water truck to wet down active grading areas and roads at least twice daily, 12 percent moisture content to unpaved roads, and limiting vehicle speeds to 15 miles per hour. During construction, material

such as vegetation, soil, old asphalt, and concrete would be exported from the site and material such as soil, aggregate, asphalt, and concrete would be imported to the site. It is anticipated that 35,000 cubic yards (CY) of cut and 75,000 CY of fill would be required for the Project. While some of the cut material could be used as fill, thereby decreasing the total amount of import required, the model assumes that 40,000 CY would be imported. (Note that the Western Water component of the Project would require approximately 5,100 CY of earthwork, primarily over-excavation and recompaction. This incremental increase would not substantially increase emissions or result in a cumulatively significant air quality impact.)

The emissions generated from construction activities include:

- Dust (including PM10 and PM2.5), primarily from fugitive sources such as soil disturbance and vehicle travel over unpaved surfaces; and
- Combustion emissions of air pollutants (including ROG, NOX, PM10, PM2.5, CO, and sulfur oxides [SOX]), primarily from operation of heavy off-road equipment.

The results of the calculations for Project construction are shown in Table 4 Maximum Daily Construction Emissions. (The data is presented as the maximum anticipated daily emissions for comparison with the SCAQMD thresholds and the model output is included within Appendix 3.

Table 2: Maximum Daily Construction Emissions

Year	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
2027 Summer	6.3	63.6	63.2	0.2	11.1	4.8
2027 Winter	42.0	80.0	120.2	0.3	17.7	8.5
2028 Summer	6.9	67.0	67.8	0.2	12.0	5.0
2028 Winter	1.4	10.4	13.6	<0.1	1.2	<0.1
Maximum Daily Emissions	42.0	80.0	120.2	0.3	17.7	8.5
SCAQMD Thresholds	75	100	550	150	150	55
Significant Impact?	No	No	No	No	No	No

Source: CalEEMod (Attachment A); SCAQMD 2023

VOC = volatile organic compound; NO_x = nitrogen oxides; CO = carbon monoxide; SO₂ = sulfur dioxide;

PM₁₀ = respirable particulate matter with a diameter of 10 microns or less; PM_{2.5} = fine particulate matter with a diameter of 2.5 microns or less; SCAQMD = South Coast Air Quality Management District

As indicated, the Project's construction emissions would not exceed SCAQMD thresholds and would not result in a cumulatively considerable net increase of any criteria pollutant. The impact would be less than significant.

Operation Emissions. Potential operational emissions resulting from roadway projects typically result from an increase in vehicle miles traveled (VMT) compared to existing conditions. However, the Project proposes the widening and improvement of an existing roadway, meaning emissions resulting from usage of this road have been previously analyzed and accounted for. Therefore, no change in operational emissions would occur and no operation emission calculations are included in this analysis.

- c. **Less than Significant Impact.** The localized effects from the on-site portion of daily construction emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's Localized Significance Thresholds (LSTs) method (SCAQMD 2009). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard; they are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The LST methodology is recommended to be limited to projects of five acres or less and to avoid the need for complex dispersion modeling. For projects that exceed 5 acres, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and over-predicts potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If a project exceeds the LST look up values, then the SCAQMD recommends that project-specific localized air quality modeling be performed.

The proposed Project is located in SRA 26, Temecula Valley, and sensitive receptors are located within 25 meters (82 feet) of the approximately 1.2-mile long Project site. Based on SCAQMD guidance, acreage of disturbance is determined based on equipment used, which equates to 5 acres of activity site when proposed Project details are applied (SCAQMD 2024). Therefore, the LSTs being applied to the Project are based on SRA 26, receptors located within 25 meters, and a disturbed area not to exceed 5 acres. Consistent with the LST guidelines, when quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Emissions related to off-site delivery/haul truck activity and construction worker trips are not considered in the evaluation of construction-related localized impacts, as these do not contribute to emissions generated on a project site. As indicated in Table 5, Maximum Localized Daily

Construction Emissions, localized emissions for all criteria pollutants would not exceed their respective SCAQMD LSTs. Therefore, impacts would be less than significant.

Table 3: Maximum Localized Daily Construction Emissions

	Pollutant Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	63.9	113.8	13.0	7.0
<i>SCAQMD LST</i>	<i>371</i>	<i>1,965</i>	<i>13</i>	<i>8</i>
Significant Impact?	No	No	No	No

Source: CalEEMod; SCAQMD 2009

NO_x = nitrogen oxides; CO = carbon monoxide; PM₁₀ = respirable particulate matter with a diameter of 10 microns or less; PM_{2.5} = fine particulate matter with a diameter of 2.5 microns or less;

SCAQMD = South Coast Air Quality Management District; LST = Localized Significance Threshold

As indicated in Table 5, maximum daily emissions are below each of their respective localized significance thresholds. However, it is important to note that this estimate is conservative. As the proposed Project is linear in nature and 1.2 miles in length, the overlapping construction activities associated with onsite emissions would occur at varying distances and would not affect the same receptor at the same time. This model instead estimates emissions assuming that phases would overlap and affect potential sensitive receptors at the same time. Because emissions would still not exceed thresholds under this assumption, the impacts would be less than significant.

Toxic Air Contaminants. The greatest potential for TAC emissions during construction would be related to diesel particulate matter associated with heavy equipment operations during earth-moving activities. The SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue due to the short-term nature of construction activities. Construction activities associated with the proposed Project would be sporadic, transitory, and short term in nature, lasting approximately eighteen months. The assessment of cancer risk is typically based on a 30-year exposure period. Because exposure to diesel exhaust would be well below the 30-year exposure period, construction of the proposed Project is not anticipated to result in an elevated cancer risk to exposed persons. As such, Project-emission impacts during construction would be less than significant.

d. **Less than Significant Impact.** The proposed Project would produce odors during proposed construction activities resulting from heavy diesel equipment exhaust and application of asphalt; however, standard construction practices would minimize the odor emissions and their associated impacts. The increase of construction odors would be minimal, as vehicle exhaust is

already prevalent in the area due to its proximity to I-15. Furthermore, odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Therefore, odor impacts from construction of the Project would be less than significant due to the duration of exposure and compliance with existing policies.

Odors generated by traffic on the widened Madison Avenue would be similar to those that currently are generated on the existing roadway and other streets and highways in the area. Therefore, long-term operation of the Project would not result in a change to existing odors in the Project vicinity, and there would be no new impact related to odors.

4.3.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Would the project?	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		✓		

Would the project?	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		✓		

The following discussion is based on the General Biological Resources Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis (HELIX, November 2025), prepared for the Madison Avenue Street Improvements project and included in this report as Appendix 2.

4.4.1 Setting

ENVIRONMENTAL

The approximately 92-acre Study Area for Biological Resources encompasses the limits of earth disturbance for proposed Project site plus a 100' buffer, and includes portions of 72 Assessor's Parcel Numbers (APNs) and the Madison Avenue public right-of-way (ROW). The elevation in the Study Area ranges from 1,080 to 1,120 feet (329 to 341 meters) above mean sea level.

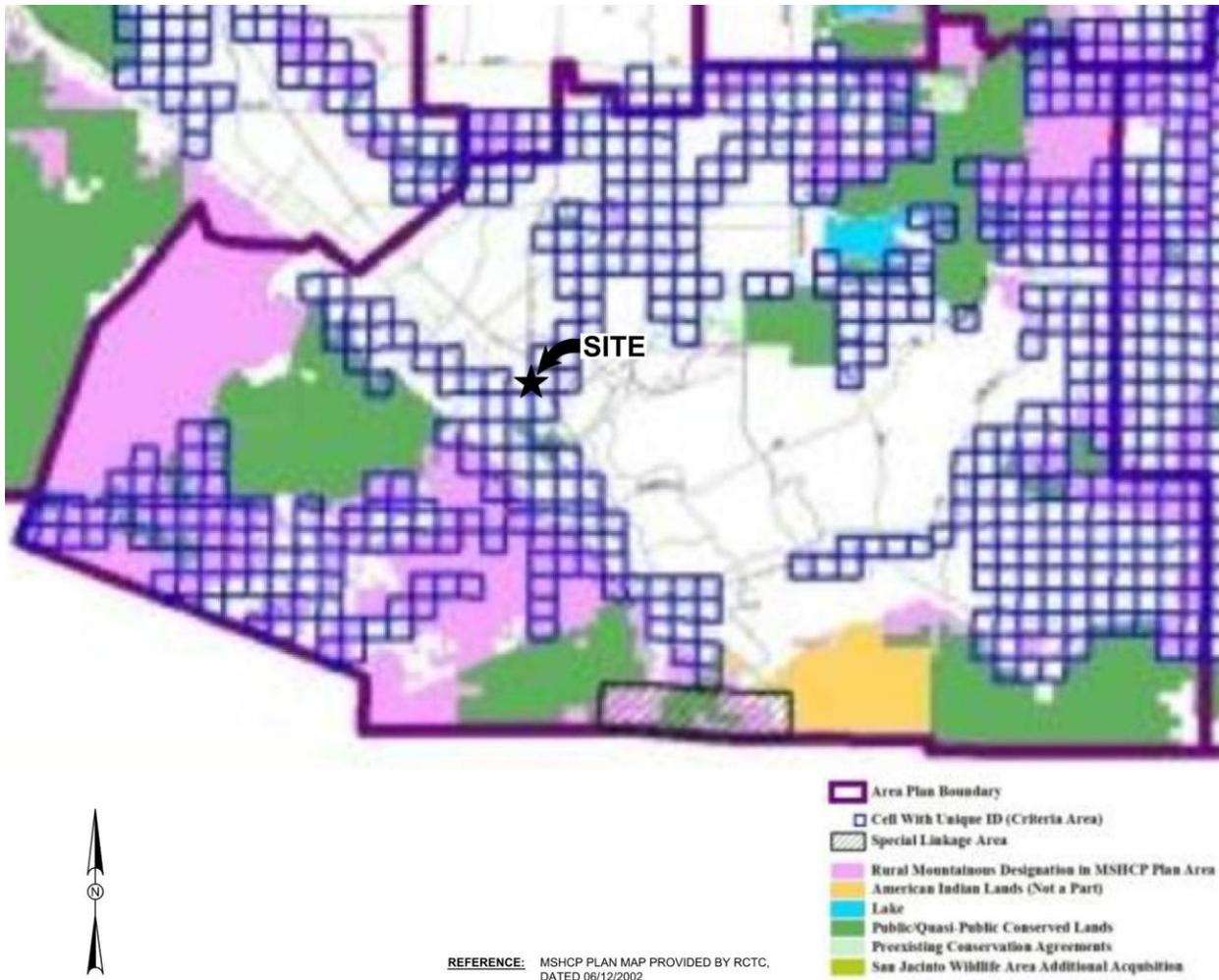


Figure 11: MSHCP Southwest Area Plan Excerpt

The proposed Project site is located within the Southwest Area Plan of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). Portions of the project site are located within or adjacent to MSHCP Criteria Cells 6409, 6525, and 6528, but do not include any MSHCP Cores and Linkages, conserved land, or agricultural preserves. The project site occurs outside of U.S. Fish and Wildlife Service-designated critical habitat (USFWS 2024b).

VEGETATION

Table 4: Vegetation Communities and Land Covers

MSHCP Vegetation Community Classification ¹		Holland/Oberbauer ²	Acres in Study Area ³
Collapsed	Uncollapsed		
Riparian Scrub, Woodland, Forest	Southern Willow Scrub	Southern Willow Scrub (63320)	0.07
Riparian Scrub, Woodland, Forest	Mulefat Scrub	Mule Fat Scrub (63310)	0.06
Coastal Sage Scrub	Riversidean Sage Scrub	Riversidean Sage Scrub (32700)	9.14
Grassland	Non-native Grassland	Non-native Grassland (42200)	21.56
Riparian Scrub, Woodland, Forest	Tamarisk Scrub	Non-native Woodland (79000)	0.29
Developed/Disturbed Land	Residential/Urban/Exotic	Disturbed Habitat (11300)	28.02
Developed/Disturbed Land	Residential/Urban/Exotic	Urban/Developed (12000)	33.39
Total			92.53

¹ Collapsed and uncollapsed community classifications are terms from MSHCP Table 2-1.

² Holland/Oberbauer Element Code in parentheses.

³ Acreages are rounded to the nearest hundredths.

Southern willow scrub. Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*), and with scattered Fremont cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*). This vegetation community generally occurs on loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. Approximately 0.07 acre (3,050 square feet) of southern willow scrub occurs within the Study Area, consisting of a patch of arroyo willow (*Salix lasiolepis*) and Goodding's black willow (*Salix gooddingii*), as well as Fremont cottonwood and mule fat growing within a roadside flood control facility. Tamarisk (*Tamarix* spp.) and herbaceous weeds are also present in this vegetation community.

Mulefat scrub. Mulefat scrub is a shrubby riparian scrub community dominated by mule fat and interspersed with small willows, often lacking diversity in species numbers. This vegetation community occurs along intermittent stream channels within coarse substrates and moderate depth to the water table. Approximately 0.06 acre (2,600 square feet) of mulefat scrub occurs within the Study Area, growing within a roadside flood control facility and the off-site portion of a stream crossing the project site. Herbaceous plants in this portion of the Study Area include western ragweed (*Ambrosia psilostachya*) and cocklebur (*Xanthium strumarium*).

Riversidean sage scrub. Riversidean sage scrub is the driest expression of coastal sage scrub, typically found on dry steep slopes, severely drained soils, or clays that release stored soil moisture slowly. Typical stands are open and dominated by California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia farinosa*), California sagebrush (*Artemisia californica*), and foxtail chess (*Bromus madritensis*). Approximately 9.14 acres of Riversidean sage scrub occur throughout the Study Area in patches dominated by California buckwheat ranging from dense to open. Other species occurring in this vegetation community include black sage (*Salvia mellifera*), white sage (*Salvia apiana*), Great Basin sagebrush (*Artemisia tridentata*), brittlebush, mule fat, coastal prickly pear (*Opuntia littoralis*), deerweed (*Acmispon glaber*), fourwing saltbush (*Atriplex canescens*), and dove weed (*Croton setigerus*). This vegetation community includes a mix of non-native plants, including foxtail chess, common ripgut grass (*Bromus diandrus*), oats (*Avena* sp.), tamarisk, yellow sweet clover (*Melilotus officinalis*), and short-pod mustard (*Hirschfeldia incana*).

Non-native grassland. Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. Characteristic species include oats (*Avena* spp.), brome grasses (*Bromus* spp.), and mustards (*Brassica* spp.). Most of the introduced species within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. Intensive grazing and agricultural practices, combined with severe droughts in California, contributed to the successful invasion and establishment of these non-native species and the replacement of native grasslands with annual-dominated non-native grasslands. Within the Study Area, non-native grassland habitat is dominated by a mix of slender oats (*Avena barbata*), wild oats (*Avena fatua*), Bermuda grass (*Cynodon dactylon*), common ripgut grass, foxtail chess, and fescue (*Festuca microstachys*). This habitat contained a variety of native and non-native herbs and scattered sparse shrubs including red stem filaree (*Erodium cicutarium*), scarlet pimpernel (*Anagallis arvensis*), winter vetch (*Vicia villosa*) and California buckwheat. Approximately 21.56 acres of non-native grassland occur in open fields in the central portion of the Study Area.

Tamarisk scrub. Tamarisk scrub typically comprises shrubs and/or small trees of exotic tamarisk species but may also contain willows, salt bushes (*Atriplex* spp.), catclaw acacia (*Senegalia greggii*), and salt grass (*Distichlis spicata*). This habitat occurs along intermittent streams in areas where high evaporation rates increase the salinity level of the soil. Tamarisk is a phreatophyte, a plant that can obtain water from an underground water table. Because of its deep root system and high transpiration rates, tamarisk can substantially lower the water table to below the root zone of native species, thereby competitively excluding them. As a prolific seeder, it may rapidly displace native species within a drainage (Holland 1986). In the Study Area, other species occurring in tamarisk scrub include non-native grasses, buckwheat,

tocalote (*Centaurea melitensis*), and short pod mustard. Patches of tamarisk totaling 0.29 acre occur in the northeast portion of the Study Area.

Residential/urban/exotic land (Disturbed). Residential/urban/exotic land, with reference to disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing non-native plant species, such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat. Within the Study Area, most residential/urban/exotic land (disturbed) consists of bare ground with scattered short-pod mustard (*Hirschfeldia incana*) and annual non-native species, including tocalote, filaree (*Erodium cicutarium*), foxtail chess, common riggut grass, stinknet (*Oncosiphon piluliferum*), dove weed, pigweed (*Chenopodium album*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and common fiddleneck (*Amsinckia menziesii*). Residential/urban/exotic land (disturbed) includes cottonwood, mule fat, tamarisk, Peruvian pepper tree (*Schinus molle*), olive (*Olea europaea*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), palm trees, and river red gum (*Eucalyptus camaldulensis*). Residential/urban/exotic land (disturbed) covers approximately 28.02 acres of the Study Area, consisting of dirt roads, disturbed lots, and open fields that are not dominated by grasses.

Residential/urban/exotic land (Developed). Residential/urban/exotic land, with reference to developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation. Developed portions of the Study Area consist of paved roads, commercial and residential development and associated landscaping, a school, a border patrol facility, a vineyard, and a landscaped slope dominated by brittlebush. A total of 33.39 acres of Residential/urban/exotic land (developed) occurs in the Study Area.

AQUATIC RESOURCES

The proposed Project Study Area contains:

- Eight unnamed ephemeral drainages (that flow only during or directly after rain events) and five swales (with limited sign of flow); all but one appear to be naturally occurring. Three of the drainages contain small patches of riparian habitat and are considered MSHCP riparian resources.
- Nine unvegetated pools consisting of road depressions located on compacted hard pan created by vehicle traffic.

Murrieta Creek, the nearest relatively permanent water feature, is located approximately 0.5 miles (2,600 feet) from the nearest onsite drainage feature (a culvert whose ultimate off-site outfall location is not known).

Four drainages enter culverts adjacent to Jefferson Avenue and have no known outfall location making a downstream connection unclear. Ten of the drainages originate within the Study Area, and three originate to the east of the Study Area. Three drainages connect to a small ephemeral pond located approximately 200 feet to the west. Eight drainages may have connectivity to Murrieta Creek via culverts but have no defined surface connection to downstream resources.

REGULATORY

FEDERAL

Endangered Species Act. The Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species, and the habitats upon which they rely, are considered take under ESA Section 9(a). Section 4(d) allows for customization of prohibitions and regulation of activities to provide for the conservation of threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take can be authorized via a letter of biological opinion, issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows the issuance of permits for “incidental” take of endangered or threatened species. The term “incidental” applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity. The MSHCP is the Section 10(a) permit for this portion of Riverside County, including the subject property.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) protects all migratory bird species that are native to the United States or its territories. In widespread practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season. The nesting season is generally from February 1 to August 31. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Clean Water Act. The purpose of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S. is overseen by the USACE under Section 404 of the CWA and by the State RWQCB under Section 401 of the CWA. Many ephemeral waters in California no longer fall under the jurisdiction of the USACE due to a

recent change in the regulations. Most development projects with impacts to federal waters are permitted using Individual Permit or Nationwide Permit instruments.

Rivers and Harbors Act. The Rivers and Harbors Act primarily deals with discharges into navigable waters.

STATE

California Endangered Species Act. The California Endangered Species Act (CESA) establishes State policy to conserve, protect, restore, and enhance State endangered species and their habitats. Under State law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the CFG Commission. The CESA authorizes that private entities may “take” plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For State-only listed species, Section 2081 of the CFG Code authorizes the CDFW to issue an Incidental Take Permit for State listed threatened and endangered species if specific criteria are met. The MSHCP is a regional Natural Communities Conservation Plan granted take coverage under Section 2081 of the CESA.

California Fish and Game Code. The California Fish and Game (CFG) Code provides specific protection and listings for several types of biological resources:

Section 1600 requires a Streambed Alteration Agreement (SAA) for any activity that would alter the flow, change, or use of any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities.

Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

Native Plant Protection Act. The Native Plant Protection Act (NPPA), Sections 1900–1913 of the CFG Code, directs the CDFW to carry out the State legislature’s intent to “...preserve, protect, and enhance endangered or rare native plants of this State.” The NPPA gives the CFG Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take.

Porter-Cologne Act. The purpose of the Porter-Cologne Act is to restore and maintain the chemical, physical, and biological integrity of all waters of the State. Waters of the State that are not subject to regulation under the CWA are regulated under the Porter-Cologne Act by the RWQCB through Waste Discharge Regulations in a manner similar to the restrictions imposed under Section 401 of the CWA.

LOCAL

Western Riverside Multiple Species Habitat Conservation Plan. The Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive multi-jurisdictional effort that includes multiple cities and unincorporated County lands in western Riverside County. Rather than addressing sensitive species on an individual basis, the MSHCP focuses on the conservation of 146 species, proposing a reserve system of approximately 500,000 acres and a mechanism to fund and implement the reserve system (RCTLMA 2003). Most importantly, the MSHCP allows participating entities to issue take permits for listed species so that individual applicants need not seek their own permits from the USFWS and/or CDFW. The MSHCP was adopted on June 17, 2003, by the Riverside County Board of Supervisors. The Incidental Take Permit was issued by both the USFWS and CDFW on June 22, 2004.

The MSHCP requires that projects be assessed for MSHCP Section 6.1.2 resources, including riparian/riverine resources, vernal pools, fairy shrimp, and riparian birds. The goal is to protect resources used by MSHCP-covered species, as well as the existing and future downstream conservation areas. The MSHCP contains the following definitions:

Riparian/Riverine Areas are “lands which contain Habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to, or which depend upon soil moisture from a nearby fresh water source; or areas with freshwater flow during all or a portion of the year.”

Vernal pools are “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics, and

the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.”

Fairy Shrimp. For Riverside, vernal pool and Santa Rosa fairy shrimp, mapping of stock ponds, ephemeral pools and other features shall also be undertaken as determined appropriate by a qualified biologist.”

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

4.4.2 Thresholds

The delineation was conducted to identify jurisdictional waters potentially subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA, and streambed habitats potentially subject to CDFW jurisdiction pursuant to Sections 1600 et seq. of the CFG Code. Information regarding MSHCP Riparian/Riverine and Vernal Pool Resources was also collected during the aquatic resource delineation and discussed in the appropriate section below.

The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. The State Water Resources Control Board’s (SWRCB’s) State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), adopted on April 2, 2019 (SWRCB 2019), and implemented as of May 28, 2020, was used to identify potential RWQCB wetland waters of the State within the Study Area. The boundaries of non-wetland waters of the State stream channels were delineated at the top of bank. Vegetation rooted with the limits of the waters was also included within the limits of the delineation.

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code (CFG), the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW does not have a specific definition of what

constitutes a stream as it relates to regulation under Sections 1600-1603 of the CFGC. In practice, CDFW defines a stream channel as an area where water uniformly or habitually flows over a given course, and where the width of the water course can reasonably be identified by physical or biological indicators (streams typically include a bed and bank). CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow. Delineation of CDFW streambed width followed the delineation of non-wetland waters of the State, measured to the top of bank. Riparian habitat extending outside the limits of stream channels was delineated as CDFW jurisdiction to the outermost edge.

4.4.3 Impact Discussion

a-f. **Less than Significant with Mitigation Incorporated.** The biological resource technical study concluded that, with incorporation of identified mitigation measures, the proposed Project would be consistent with the requirements of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) and the City General Plan. Required mitigation measures, included as BIO-1 through -11, specify:

- Demonstration of regulatory agency compliance
- Pre-construction surveys, with detailed follow-up requirements as necessary for:
 - Aquatic resources
 - Burrowing owls
 - Nesting birds
 - Sensitive vegetation
 - Crotch's bumble bee
 - On-site construction monitoring
 - Construction fencing
 - Restrictions on the introduction of non-native invasive species
 - Payment of fees

Adherence to these measures, as well as the requirements of City General Plan Goals and Policies, would ensure that project impacts on biological resources are reduced to less than significant levels.

MSHCP Reserve Assembly Analysis. The Madison Avenue Street Improvements Project is located within the Southwest Area Plan of the MSHCP. The Study Area overlaps three MSHCP Criteria Cells but is not in or adjacent to Bureau of Land Management (BLM) public quasi-public (PQP) land (See Figure 12).

The Study Area overlaps the southwest corner of Criteria Cell 6409 and the northwest corner of Criteria Cell 6525 in Subunit 5 (French Valley/Lower Sedco Hills), and the northeast corner of Criteria Cell 6528 in Subunit 1 (Murrieta Creek) 6528. The Study Area is approximately 40 feet from the northeast corner of Criteria Cell 6416. The Project’s effects on Criteria Cells 6409, 6525, 6528, and 6416 is discussed below.



Figure 12: MSHCP Criteria Cells Excerpt

Criteria Cell 6409. The conservation goals for Criteria Cell 6409 call for conservation of 10 to 20 percent, focusing across the eastern portion of the cell. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 15. Conservation within this Cell will focus on Riversidean alluvial fan sage scrub habitat along Warm Springs Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to grassland and Riversidean alluvial fan sage scrub habitat proposed for conservation in cell 6299 to the north and cell 6407 to the east and to Riversidean alluvial fan sage scrub habitat proposed for conservation in cell 6525 to the south.

The Project occurs in and adjacent to existing roadways in the southwest end of cell 6409, to the west of Interstate 15. Thus, the Project would not adversely affect this cell’s conservation goals for lands east of Interstate 15, along Warm Springs Creek in the eastern portion of the cell. Approximately 83.7 acres of

undeveloped land (approximately 50 percent of the cell) will remain in cell 6409 after Project development. Therefore, the Project would not conflict with the Cell Conservation Criterion.

Criteria Cell 6525. The conservation goals for Criteria Cell 6525 call for conservation of approximately 5 percent, focusing across the northeastern portion of the cell. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 15. Conservation within this Cell will focus on Riversidean alluvial fan sage scrub habitat along Warm Springs Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to Riversidean alluvial fan sage scrub habitat proposed for conservation in Cell 6409 to the north.

The Project occurs in and adjacent to existing roadways in the northwest end of cell 6525. Proposed Project impacts south of Golden Gate Circle nearest the creek are limited to Residential/Urban/Exotic land. Thus, the Project would not adversely affect this cell's conservation goals for lands along Warm Springs Creek in the middle of the cell. Approximately 48.4 acres of undeveloped land (approximately 25 percent of the cell) will remain in cell 6525 after Project development. Therefore, the Project would not conflict with the Cell Conservation Criterion.

Criteria Cell 6528. The conservation goals for Criteria Cell 6528 call for conservation of approximately 5 percent, focusing across the western portion of the cell. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 13. Conservation within this Cell will focus on grassland habitat along Murrieta Creek to the extent feasible. Areas conserved within this Cell will be connected to habitat proposed for conservation along Murrieta Creek in Cell 6530 to the west and 6656 to the south.

The Project occurs in and adjacent to existing roadways in the northeast corner of cell 6528. The Project would not adversely affect this cell's conservation goals for lands along Warm Springs Creek in the west side of the cell. Approximately 35.6 acres of undeveloped land (approximately 18 percent of the cell) will remain in cell 6528 after Project development. Therefore, the Project would not conflict with the Cell Conservation Criterion.

Criteria Cell 6416. The conservation goals for Criteria Cell 6416 call for conservation of 15 to 25 percent, focusing across the southwestern portion of the cell. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 13. Conservation within this Cell will focus on the existing Murrieta Creek channel and adjacent grassland habitat and agricultural land to the extent feasible. Areas conserved within this Cell will be connected to agricultural land proposed for conservation in Cell #6422 to the west and #6530 to the south.

Study Area Evaluation. The Study Area was evaluated for habitat that could support animals and/or plants identified by the MSHCP as riparian/riverine and Vernal Pool species during: 1) sensitive plant surveys in April, June 28 and July 25, 2018; 2) aquatic resource assessments on November 20 and 22, 2023; and 3) wet/dry season fairy shrimp surveys during the 2023-2024 survey period (conducted concurrently in the field with the November 2023 aquatic resources assessment). See Figure 13 below.

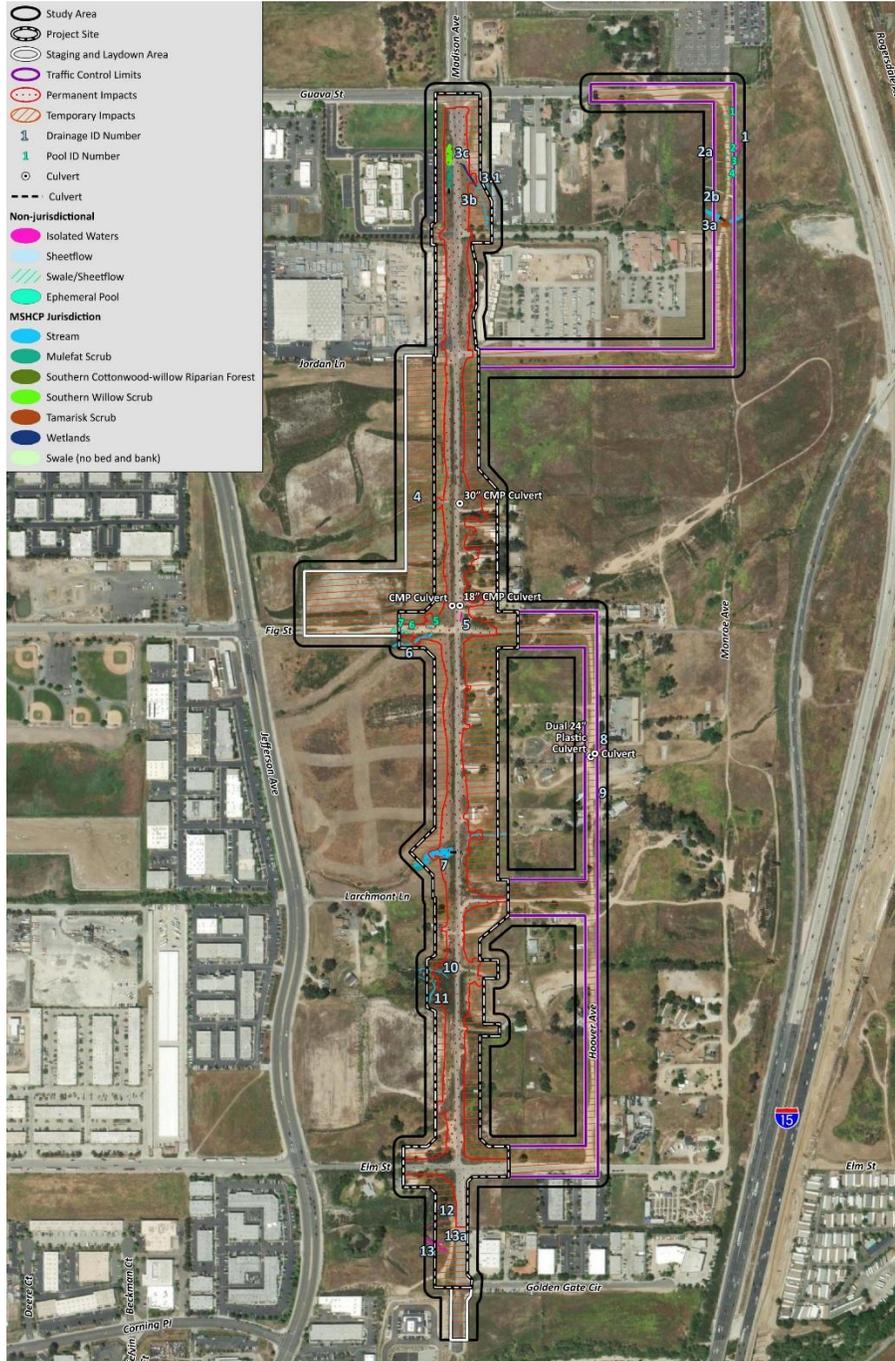


Figure 13: Vegetation and Aquatic Features

The evaluation consisted of: 1) a directed search for field characteristics indicative of riparian/riverine habitats and vernal pools, including the presence of certain plant species, drainage courses, drainage patterns, ponded/standing water, changes in soil character, changes in vegetation character, and deposits of water-borne debris; and 2) the mapping of potential riparian/riverine resources.

Table 5: Existing Habitats Evaluated for Riparian/Riverine Potential¹

Resource Type	Acre	Linear Feet
Riverine-Ephemeral Streambed	0.63	2,792
Riparian-Southern Willow Scrub	0.07	97
Riparian-Mulefat Scrub	0.06	136
Riparian-Tamarisk Scrub	0.04	40
Isolated ephemeral streambed ²	0.03	169
Total	0.83	3,234

¹ Acreage rounded and linear feet rounded to nearest 0.01.

² Not an MSHCP riparian/riverine resource.

Riverine Habitat. The potential riverine habitat in the Study Area consists of 13 unnamed ephemeral drainages and swales. Drainages 2a, 2b, 4, and 9 are swales with limited sign of flow, while the remaining drainages are ephemeral drainages that flow only during or directly after rain events. Drainages 1-4, and 6-13 appear to be naturally occurring at their current location or are naturally occurring but have been at least partially manipulated by development. Drainages 1 and 5 do not meet the criteria to be considered MSHCP riverine resources. Drainage 1 does not connect to downstream resources. Drainage 5 (which appears to be artificially created between 2012 and 2016 to protect a residential driveway from a road runoff collection area) includes culverts under a driveway and Madison Avenue but the downstream end of the culvert on the west side of Madison Avenue shows no signs of flow. Since this drainage was artificially created in an upland and lacks a connection to downstream resources it is considered to not be an MSHCP riverine resource.

Riparian habitat. Small patches of riparian habitat occur within drainages 3a, 3c, and 7 and are considered MSHCP riparian resources comprised of 0.07 acre of southern willow scrub, 0.06 acre of mulefat scrub, and 0.04 acre of tamarisk scrub.

Vernal Pools. No MSHCP pools are present in the Study Area. Nine unvegetated pools, consisting of road depressions located on compacted hard pan created by vehicle traffic, are located within the Study Area. Because listed fairy shrimp can be found in non-vernal pool features (such as stock ponds, ephemeral pools, road ruts, people made depressions, or other depression that may pond), wet/dry season fairy shrimp protocol surveys were conducted in these pools.

Evaluation of all drainages determined them to be ephemeral. Waters evaluated consist of ten streams (Drainages 1, 3a-c, 5, 6, 7, 8, 10, 11, 12, and 13), three swales (Swales 2a-b, 4, and 9), and nine ephemeral pools (Road Pools 1 through 9). Many of the drainages appear only to flow during larger rain events and have no flow during the smaller rain events. Small amounts of riparian vegetation were present in Drainages 3a, 3c, and 7. Drainage 3a has a small stand of tamarisk scrub at a culvert, with the tamarisk scrub also occurring nearby due to irrigation runoff and not due to flow in the stream. Drainage 3c is a constructed flood control facility created at the location that was once the end (dissipation point) of the drainage. The culvert that Drainage 3c enters is approximately 0.5 miles (2,600 feet) from the nearest relatively permanent water (Murrieta Creek). The outfall location of the culvert is not known.

Drainages 1, 5, 8, 12, and 13 are isolated, ephemeral waters, lacking a connection to downstream waters. Drainages 3, 6, 10, and 11 enter into culverts adjacent to Jefferson Avenue and have no known outfall location making a downstream connection unclear. Drainages 2, 4, and 9 are swales lacking a defined bed and bank.

With the exception of drainages 6, 12 and 13, which originate within the Study Area, the drainages originate east of the Study Area. Drainages 12, 13, and 13a connect to a small ephemeral pond approximately 200 feet west of the Study Area; further connection to downstream resources is unknown. Drainages 2, 2a, 3a, 3b, 3c, 6, 7, and 9 may have connectivity to Murrieta Creek via culverts but do not have a defined surface connection to downstream resources. Drainages 1, 5, 8, 10, and 11 lack connectivity to downstream resources. Drainage 4 connects to a more well-defined drainage west of the Study Area that enters a culvert on the east side of Jefferson Avenue.

The plant species in and around the drainages are mainly a mix of native and non-native upland species commonly found in Riversidean sage scrub and disturbed habitats. Riversidean sage scrub and disturbed habitat both occur adjacent to the drainages.

Wildlife utilizing the project site, and potentially the drainages include common songbird species associated with sage scrub, and disturbed habitats. MSHCP protected riparian wildlife species were not present on the site.

The functions and services of the drainages are minimal, consisting of conveying small amounts of water and sediment, and toxin and nutrient trapping. Patches of riparian habitat that occur in the Study Area provide limited habitat for wildlife given their small size and distance from other habitat.

Riparian/Riverine Resources. The proposed Project would result in impacts to 0.61 acres of riparian/riverine resources; 0.33 acres would be permanently impacted, and 0.28 acres would be temporarily impacted.

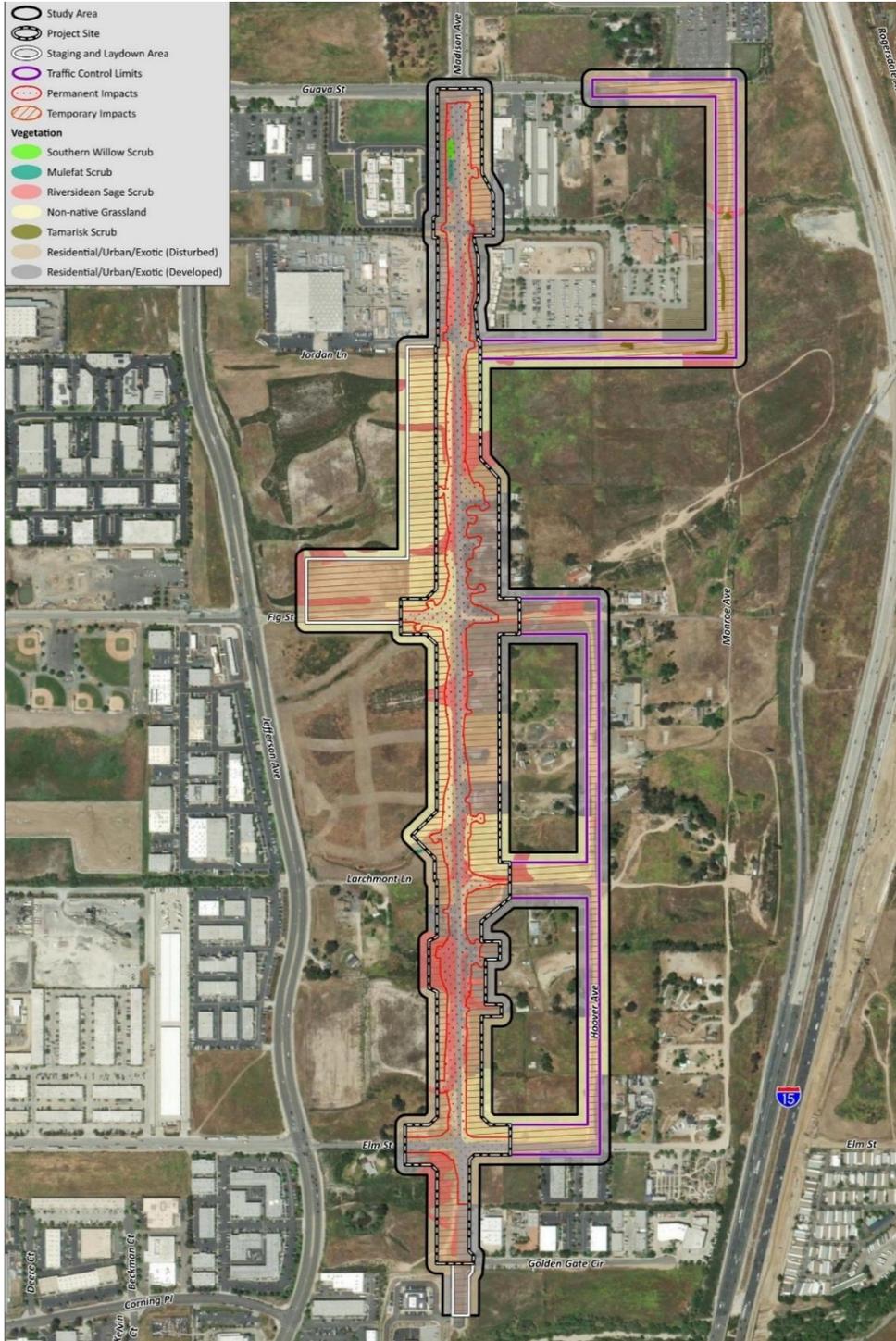


Figure 14: Vegetation Impacts

Permanent Impacts. Permanent impacts would result from proposed improvements to Madison Avenue, including widening of the road, addition of a bike lane, sidewalk, and graded parkway, and extension and/or replacement of existing culverts. Permanent impacts would result in the removal of:

- 0.20 acres of riverine-ephemeral streambed
- 0.07 acres of riparian-southern willow scrub
- 0.05 acres of riparian-mulefat scrub
- less than 0.01 acre of riparian-tamarisk scrub

Temporary Impacts. Temporary impacts on drainages would result from: 1) increased traffic on the unimproved roads adjacent to Madison Avenue (as a result of temporary traffic control measures); and 2) the extension and/or replacement of existing culverts. Temporary impacts would occur on:

- 0.25 acres of riverine-ephemeral streambed
- 0.03 acres of riparian-tamarisk scrub

Impacts on riparian/riverine systems would be **Potentially Significant**. Adherence to mitigation requiring:

1. a minimum of 1:1 replacement for permanent impacts; and
2. restoration of temporary impacts to pre-project conditions would ensure that potentially significant impacts are **reduced to less than significant levels**.

Vernal Pools/Fairy Shrimp. Eighteen 2023-2024 wet season surveys were conducted in accordance with current USFWS protocol (USFWS 2017) between January 3 and May 1, 2024. The first substantial rainfall of the season occurred on December 20-22, 2024 (0.66 inch; NOAA 2023), with the initial survey occurring on January 3, 2024. Each feature was sampled at approximately seven-day intervals until dry, and sampling was reinitiated within seven days of the feature becoming re-inundated. All features were observed to be dry on May 1, 2024. Given insubstantial rainfall on-site after May 1, 2024, this was the last survey visit for the 2023-2024 wet season.

The 2023-2024 wet season fairy shrimp surveys only yielded versatile fairy shrimp (*Branchinecta lindahli*), a common fairy shrimp species. No listed fairy shrimp species were detected.

Impacts to vernal pools/fairy shrimp would be **Less than Significant**. As no listed fairy shrimp species were observed during the 2023-2024 focused surveys, no impacts would occur to listed fairy shrimp. The proposed Project would impede on hydrology that may support fairy shrimp; however, given that the features consist of road ruts, project implementation would not impact the hydrology to the features. No mitigation is required.

Riparian Birds and Raptors. The MSHCP includes five bird species associated with riparian/riverine habitat: least Bell's vireo, southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus*), peregrine falcon (*Falco peregrinus*), and bald eagle (*Haliaeetus leucocephalus*). Three of these species (least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo) require surveys if potential habitat is present.

No habitat with the potential to support riparian bird species was identified within the Survey Area. Habitats on-site primarily consist of residential/urban/exotic (developed), residential/urban/exotic (disturbed), and non-native grassland. Patches of non-native trees, such as Peruvian pepper tree (*Schinus molle*) and river red gum (*Eucalyptus camaldulensis*) are present within the disturbed areas. Although southern willow scrub does occur within the Study Area it is limited to a small patch of habitat located within a roadside flood control facility and does not represent potential habitat for MSHCP sensitive bird species. Least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo bird species utilize willow riparian or similar woodland or forest habitats that are layered. The preferred habitat for these riparian bird species does not occur in the Study Area. Bald eagle and peregrine falcon primarily occur adjacent to open water habitats, with the peregrine falcon possibly occurring in riparian woodland and forest habitats. Suitable nesting habitat for these species does not occur in the Study Area.

Impacts to riparian birds or raptors would be **Less than Significant**. The Study Area does not include habitat with the potential to support MSHCP riparian birds or raptors. No mitigation is required.

Sensitive Plants. The MSHCP lists 23 sensitive plant species potentially occurring in riparian/riverine and Vernal Pool habitats. A focused plant survey of the Study Area was conducted over the entire Study Area. The aquatic resource assessment and riparian/riverine habitat assessment discussed above also included surveying for sensitive plant species. The Study Area has limited habitat with the potential to support riparian/riverine and Vernal pool plant species, which were confirmed to be absent as follows:

- **California black walnut (*Juglans californica* var. *californica*).** California black walnut is a conspicuous tree species associated with alluvial soils within coastal sage scrub, chaparral,

riparian woodlands, and cismontane woodlands. No California black walnut were observed and are presumed to be absent from the Study Area.

- **Engelmann oak (*Quercus engelmannii*)**. Engelmann oak is a conspicuous tree species associated with alluvial fans and slopes with a mesic aspect. No oak trees, including Engelmann oaks, were observed. This species is presumed to be absent from the Study Area.
- **Coulter's matilija poppy (*Romneya coulteri*)**. Coulter's Matilija poppy occurs in dry washes and canyons below 3,600 feet. It often occurs within sage scrub and chaparral habitats but has not been recorded in the vicinity of the Study Area. This species is easily detected when present. It was not observed and is presumed absent from the Study Area.
- **San Miguel savory (*Clinopodium chandleri*)**. San Miguel savory is a perennial shrub that occurs on rocky, gabbroic, or metavolcanic soils. Suitable soils are not present in the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **spreading navarretia (*Navarretia fossalis*)**
- **California Orcutt grass (*Orcuttia californica*)**
- **prostrate navarretia (*Navarretia prostrata*)**
- **San Diego button-celery (*Eryngium aristulatum* var. *parishii*)**
- **vernal barley (*Hordeum intercedens*)**
- Spreading navarretia, California Orcutt grass, prostrate navarretia, San Diego button-celery, and vernal barley occur in mesic soil associated with vernal pools and similar features. Vernal barley may also occur in saline areas within grasslands. Shallow ponding was observed along dirt roads during 2023 survey, but most of these shallow depressions are subject to ongoing disturbance and none of these were observed to support vernal pool associated species. Saline grasslands are not indicated by field surveys or aerial imagery.
- **graceful tarplant (*Holocarpha virgata* ssp. *elongata*)**. Graceful tarplant is an annual herb associated with grasslands, coastal scrub, chaparral, and cismontane woodland. No graceful tarplant were observed and are presumed to be absent from the Study Area.
- **Orcutt's brodiaea (*Brodiaea orcuttii*)**. Orcutt's brodiaea is a perennial bulbiferous herb that occurs on clay or mesic soils, associated with annual grassland, vernal pools, coniferous forest, chaparral, cismontane woodland, meadows, and seeps. This species has not been recorded in the vicinity of the Study Area. Suitable soils or mesic areas are not present in the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.

- **thread-leaved brodiaea (*Brodiaea filifolia*)**. Thread-leaved brodiaea is a perennial bulbiferous herb that occurs on clay soils, usually associated with annual grassland and vernal pools. This species has not been recorded in the vicinity of the Study Area. Suitable soils are not present in the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **Fish's milkwort (*Polygala cornuta* var. *fishiae*)**. Fish's milkwort is a perennial shrub associated with chaparral and oak woodlands. Suitable habitat is not present in the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **lemon lily (*Lilium parryi*)**. Lemon lily is a perennial bulbiferous herb that occurs in moist montane meadows. Suitable habitat is not present in the Study Area, this species has not been recorded in the vicinity of the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*)**. San Jacinto Valley crownscale is an annual herb associated with vernal pools, playas, and similar habitats. Suitable habitat is not present in the Study Area, this species has not been recorded in the vicinity of the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **ocellated Humboldt lily (*L. humboldtii* ssp. *ocellatum*)**. Ocellated Humboldt lily is associated with riparian corridors in coniferous forest and chaparral habitats. Within Western Riverside County, ocellated Humboldt lily is restricted to canyons along the east slope of the Santa Ana Mountains and the north slope of the Palomar Mountains. The limited riparian habitat on-site is not associated with coniferous forest, and this species has not been recorded in the vicinity of the Study Area. This species was not observed and is presumed to be absent from the Study Area.
- **Mojave tarplant (*Deinandra mohavensis*)**. Mojave tarplant is associated with arid montane chaparral. Habitat for this species does not occur in the Study Area, and this species has not been recorded in the vicinity. This species was not observed and is presumed to be absent from the Study Area.
- **Parish's meadowfoam (*Limnanthes gracilis* var. *parishii*)**. Parish's meadowfoam is an annual herb associated with montane meadows, dominated by broad-leaved plants. Suitable habitat is not present in the Study Area, this species has not been recorded in the vicinity of the Study Area, and it was not observed. This species is presumed to be absent from the Study Area.
- **slender-horned spineflower (*Dodecahema leptoceras*)**. Slender-horned spineflower is typically found in mature alluvial scrub with sandy soils but is also found in rocky soils and open chamise chaparral. Ideal habitat is thought to be benches or terraces that receive overbank flow every 50

to 100 years. Habitat for this species does not occur in the Study Area, and this species has not been recorded in the vicinity. This species was not observed and is presumed to be absent from the Study Area.

- **Santa Ana River woolly-star (*Eriastrum densifolium* ssp. *sanctorum*)**. Santa Ana River woolly-star is endemic to the Santa Ana River drainage and has not been recorded in the vicinity of the Study Area. This species was not observed and is presumed to be absent from the Study Area.
- **Brand's phacelia (*Phacelia stellaris*)**. Brand's phacelia is associated with sandy openings in Diegan coastal sage scrub near the coast. The Study Area is not coastal, and this species has not been recorded in the vicinity of the Study Area. This species was not observed and is presumed to be absent from the Study Area.
- **mud nama (*Nama stenocarpum*)**. Mud nama is restricted to muddy embankments of marshes and swamps, and within lake margins and riverbanks (CNPS 2023). Three populations are known from Riverside County, with two occurring along the San Jacinto River (RCTLMA 2003). This species has not been recorded in the vicinity of the Study Area. This species was not observed and is presumed to be absent from the Study Area.
- **smooth tarplant (*Centromadia pungens* ssp. *laevis*)**. Smooth tarplant is found in southwestern California and northwestern Baja California, Mexico (Baja), and occurs in San Bernardino, Riverside, and San Diego counties. This species occurs in open spaces within a variety of habitats, including alkali scrub and playas, riparian woodland, watercourses, and grasslands with alkaline affinities (RCTLMA 2003; CNPS 2043). Alkaline grasslands are not present. This species was not observed and is presumed to be absent from the Study Area.

Impacts to sensitive plants would be **Less than Significant**. None of the 23 MSHCP riparian/riverine and Vernal pool plant species were observed in the Study Area, nor are any expected to occur within the Study Area. No mitigation is required.

Narrow Endemic Plant Species Survey Area (NEPSSA) / Criteria Area Plant Species.

Although the Study Area is not within the MSHCP survey area for either NEPSSA or Criteria Area plant species, a survey for sensitive plants (following CDFW guidelines) was conducted over the entire area. Most plants were identified in the field, with those plants unable to be identified to species in the field collected for keying in the office. None of the 84 plant species identified within the Project Study Area are NEPSSA or Criteria Area plant species. Neither NEPSSA nor Criteria Area plant species occur in the Study Area.

The Project has been designed to concentrate and reduce the impact footprint and amount of pavement to the smallest area necessary to construct the Project to the City's "Secondary Highway" design standards. Potentially significant impacts to southern willow scrub and mulefat scrub habitats would be reduced to a less than significant levels with the implementation of mitigation measure BIO-1, which requires the payment of LDMF fees City roads projects.

The Project would incorporate standard best management practices (BMPs) to ensure the protection of sensitive habitat during Project construction. Specific BMPs may include but would not necessarily be limited to maintaining the Project work areas free of trash and debris; employing appropriate standard spill prevention practices and clean-up materials; installing and maintaining sediment and erosion control measures; maintaining effective control of fugitive dust; and safely storing, handling, and disposing of toxins and pollutants, including waste materials.

Implementation of required BMPs in combination with mitigation measures BIO-1, BIO-6, and BIO-7 would ensure that construction activities are contained within the proposed work limits, and that potentially significant direct and indirect impacts on sensitive natural communities are reduced to **less than significant levels**.

Fish. The Santa Ana sucker (protected by the MSHCP) is restricted to the Santa Ana River watershed with year-round flows, generally living in small shallow streams less than seven meters wide with various current strengths. It requires permanent streams and prefers cool, clear water with a gravel bottom (but can tolerate turbid waters). No habitat for this species is present in the Study Area; the species is not expected to occur, and the proposed Project would have **no impact**.

Amphibians. The MSHCP provides protection for three amphibian species:

- **arroyo toad (*Anaxyrus californicus*),**
- **mountain yellow legged frog (*Rana muscosa*),**
- **California red-legged frog (*Rana draytonii*).**

Arroyo toad occur in streams that have breeding pools that are shallow with minimal current. Requirements also include sandy banks with areas of minimal vegetative cover. The drainages/streams in the Study Area are ephemeral and only flow in response to direct rainfall. The ephemeral streams do not constitute habitat for arroyo toad, mountain yellow legged frog, or California red-legged frog. Mountain yellow-legged frog and California red-legged frog are not known to occur on or adjacent to the Study Area.

The mountain yellow-legged frog occurs in mountain streams and is currently only known within the County in the San Jacinto Mountains. The California red-legged frog is only known within the County on the Santa Rosa Plateau. It requires deep water with adjacent uplands to move between breeding sites. Habitat for these species does not occur in the Study Area; thus, none of the MSHCP sensitive amphibian species are expected to occur. No habitat for these species is present in the Study Area; the species are not expected to occur, and the proposed Project impacts would be **less than significant**. No mitigation is required.

Amphibians. The Study Area is not within an amphibian survey area. No surveys for amphibians are required, and none were conducted. Proposed Project impacts would be **less than significant**. No mitigation is required.

The proposed Project would result in permanent impacts to 0.33 acres of waters of the State jurisdictional to RWQCB, streambed/riparian habitat jurisdictional to CDFW, and MSHCP Riverine resources. Temporary impacts would occur on 0.29 acre waters of the State jurisdictional to RWQCB, 0.28 acre of streambed/riparian habitat jurisdictional to CDFW, and 0.28 acres of MSHCP Riverine resources. In accordance with regional standards, impacts would be mitigated at a minimum 1:1 ratio, with the final ratio to be determined during in consultation with the resource agencies during the permitting process. Mitigation is proposed to occur via the purchase of re-establishment and rehabilitation credits at the Riverpark Mitigation Bank and/or San Luis Rey mitigation bank or other agency approved mitigation bank, via the purchase of preservation credits at the Barry Jones Mitigation Bank (aka Skunk Hollow), or via restoration and improvements to the features within and adjacent to the Study Area, or off-site mitigation at a property owned by the City.

Temporary impact areas would be restored to pre-project conditions.

Adherence to mitigation measure BIO-7 would ensure that impacts to aquatic resources would be reduced to less than significant levels, and the project would be consistent with MSHCP Section 6.1.2.

Burrowing Owl. The Study Area is within the mapped MSHCP survey area for Burrowing Owl (BUOW), and surveys were conducted in 2018 and 2022 in accordance with the County's survey protocol (County 2006, HELIX 2018, and Kleinfelder 2022). Both surveys included a Step I-Habitat Assessment for BUOW, which included the Study Area and a 150-meter (approximately 500-foot) buffer zone surrounding the periphery of the Study Area (survey area). Since suitable habitat for BUOW was observed, Step II surveys were conducted. Step II surveys typically consist of a focused burrow survey (Part A) and four focused BUOW surveys (Part B) to determine whether the survey area supports suitable burrows and/or BUOWs.

The Study Area includes suitable habitat for BUOW, consisting of Residential/Urban/Exotic (disturbed), non-native grassland, and Riversidean sage scrub vegetation communities. Additionally, suitable burrows that could potentially be used by BUOW were observed. Although potential habitat was present, no sign of current or past use by burrowing owl was observed in the Study Area during burrowing owl surveys conducted in 2018 and 2022. Therefore, the Study Area does not currently support burrowing owls.

Given that the Study Area has suitable BUOW habitat, including burrows from ground-dwelling mammals, impacts to BUOW would be **potentially significant**. Adherence to the following mitigation would ensure that impacts are reduced to less than significant levels:

1. a survey for burrowing owls within the 30-days prior to initial ground-disturbing activities;
2. notification of the RCA, City, and the Wildlife Agencies if burrowing owls have colonized the Project site prior to the initiation of ground-disturbing activities;
3. the preparation of a Burrowing Owl Protection and Relocation Plan (prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (CDFW 2012) and MSHCP), as appropriate;
4. following the same procedure as described in 2) and 3) above if burrowing owls are observed within the Study Area during Project implementation and construction;
5. an additional preconstruction survey for burrowing owl If ground-disturbing activities occur but the site is left undisturbed for more than 30 days;
6. preparation of a DBESP report if the proposed Project cannot avoid (permanent and temporary) at least 90 percent of the occupied portions of the Study Area that contributes to the long-term conservation value of BUOW, including a minimum of 1:1 replacement for permanent impacts; and 2) restoration of temporary impacts to pre-project conditions.

Mammals. The Study Area is not within an MSHCP survey area for mammals. No mammal surveys are required, and none were conducted. Impacts would be **less than significant**. No mitigation is required.

The proposed Project would demonstrate compliance with the MSHCP through the implementation of mitigation measures BIO-1, BIO-2, and BIO-3. Potential impacts to the Cooper's hawk, Southern California rufous-crowned sparrow, and black-tailed jackrabbit, are covered under the MSHCP, with no species-specific mitigation requirements.

Stephens' Kangaroo Rat (*Dipodomys stephensi*) Habitat Conservation Plan. The proposed Project is within the Stephens' Kangaroo Rat (*Dipodomys stephensi*) Habitat Conservation Plan (SKRHCP) area, but

not within any of the core reserves (Riverside County Habitat Conservation Agency 1996). As a development by a local entity for government purposes, the project is exempt from the payment of SKR mitigation fees.

The MSHCP includes a table (MSHCP Table 9-3) of 28 species not adequately conserved under the MSHCP. These species were not observed on the property during the various site visits conducted on the property.

Special status plant species. Special status plant species have been afforded special status and/or recognition by the USFWS and/or CDFW and may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. Sensitive species are those considered unusual or limited in that they are: (1) only found in the region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region. No sensitive plant species were observed in the Study Area.

Of the 36 plant species were evaluated for their potential to occur in the Study Area (See HELIX Report, Appendix C, *Special-Status Plant Species Potential to Occur*), 13 have suitable habitat within the Study Area. None of these species were observed in the Study Area during the sensitive plant survey (or other biological surveys), although **paniculate tarplant (*Deinandra paniculata*)**, a California Rare Plant Rank 4.2., was observed within the 500-foot buffer for burrowing owl surveys.

All 36 plant species evaluated are presumed absent or do not have the potential to occur in the Study Area and described further in Appendix C, where the explanation of status codes are included as a footnote. No other plant species have a high potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the Study Area.

Three of the species evaluated are listed at either the federal or State level, with two of the three listed at both the federal and State level. Habitat for the listed species is not present in the Study Area. Habitat for an additional thirteen sensitive (but not listed) species is present in the Study Area, but these species were determined to be absent by the conducting of the sensitive plant surveys:

- alkali marsh aster (*Almutaster pauciflorus*)
- Douglas' fiddleneck (*Amsinckia douglasiana*)
- Catalina mariposa lily (*Calochortus catalinae*)
- intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- paniculate tarplant
- graceful tarplant (*Holocarpha virgata* ssp. *elongata*)
- Southern California black walnut
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- white rabbit-tobacco (*Pseudognaphalium leucocephalum*)
- Engelmann oak (*Quercus engelmannii*)
- bottle liverwort (*Sphaerocarpos drewei*)
- San Bernardino aster (*Symphotrichum defoliatum*).

Special status animal species. Special status animal species include those that have been afforded special status and/or recognition by the USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Three special status animal species were observed within or adjacent to the Study Area during the 2018 and 2023 biological surveys:

- **Cooper's hawk (*Accipiter cooperi*)**

Status: --/WL, Covered

Distribution: In California, breeds from Siskiyou County south to San Diego County and eastwards to Owens Valley at elevations below 9,000 feet.

Habitat(s): Occurs in forests, riparian areas, and more recent suburban and urban areas. Nests within dense woodlands and forests and isolated trees in open areas.

Status on-site: Species was observed overhead.

- **Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)**

Status: --/WL, Covered

Distribution: Year-round resident of southwestern California occurring from Santa Barbara County south to San Diego County at elevations below 5,000 feet.

Habitat(s): Generally found on moderate to steep slopes vegetated with grassland, coastal sage scrub, and chaparral. Prefers areas with California sagebrush (*Artemisia californica*) but generally absent from areas with dense stands of coastal sage scrub.

Status on-site: Species was observed foraging within the Study Area.

- **Black-tailed jackrabbit (*Lepus californicus bennettii*)**

Status: --/--, Covered

Distribution: Occurs along the coastal regions of southern California.

Habitat(s): Found in arid regions preferring grasslands, agricultural fields, and sparse scrub. Typically absent from areas with high-grass or dense brush, such as closed-canopy chaparral, primarily occupying short-grass and open scrub habitats.

Status on-site: Species was observed foraging within the Study Area.

Special-status animal species that were not observed or otherwise detected but assessed as to their potential to occur on-site, are included in the HELIX Report, Appendix D, *Special Status Animal Species Potential to Occur*. The species are grouped into invertebrates and vertebrates (crustaceans, insects, fishes, amphibians and reptiles, birds, and mammals) and alphabetized by scientific name. An explanation of status codes is included as a footnote at the end of Appendix D. A total of 52 species were assessed for their potential to occur. A few of the species are known to occur within one mile of the Study Area.

In addition to the special status species observed in the Study, six other species analyzed have a high potential to occur within the Study Area based on the presence of suitable habitat and recent records near the Study Area. These species include:

- California glossy snake (*Arizona elegans occidentalis*),
- orange-throated whiptail (*Aspidoscelis hyperythra*),
- Blainville's [coast] horned lizard (*Phrynosoma blainvillei*),
- Bell's sage sparrow (*Artemisiospiza belli belli*),
- California horned lark (*Eremophila alpestris actia*), and
- coastal California gnatcatcher (*Polioptila californica californica*).

Species-specific conservation objectives for burrowing owl include focused species surveys. Surveys in 2018 and 2022 were negative. However, pre-construction presence/absence surveys for burrowing owl are required.

There are no species-specific conservation objectives for the remaining species with high potential to occur in the Study Area. California glossy snake and Blainville's horned lizard are California State species of concern and are locally common. These species are mobile and, in most circumstances, would be able to move from active construction areas. Project impacts to these species are not significant.

Orange-throated whiptail, Bell's sage sparrow, and California horned lark are each a CDFW watch list species and MSHCP covered. Coastal California gnatcatcher is federally threatened and California State species of concern, as well as MSHCP covered. Given that these species are being adequately conserved within the MSHCP, Project impacts to these species are not significant.

Three additional species were assessed with moderate potential to occur in the Study Area due to older species records and/or further records:

- Crotch's bumble bee (*Bombus crotchii*),
- Stephens' kangaroo rat (*Dipodomys stephensi*), and
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

Of these species, one is a candidate for being listed as endangered under the CESA, one is federally, and State listed threatened, and one is a California State species of concern and is locally common. Presence/absence surveys for Crotch's bumble bee have not been conducted in the Study Area. There are no species-specific conservation objectives for Stephens' kangaroo rat or Los Angeles pocket mouse, since the Project site is located outside of the mammal species survey area and would not be obligated to conduct surveys for Los Angeles pocket mouse.

There are seven species with low potential to occur in the Study Area, including one crustacean, one reptile, four birds, and one mammal. Of these species, one is federally listed endangered, one is federally and State listed endangered, one is State listed threatened, one is California State species of concern, one is a CDFW watch list species (and CDFW fully protected), and one is CDFW fully protected. The remaining species was evaluated because it is MSHCP covered.

None of the other species analyzed have a high or moderate potential to occur in the Study Area based on geographic range, lack of suitable habitat, and the lack of observation.

Nesting Birds. In addition to the above sensitive animal species, nesting birds are protected under the Migratory Bird Treaty Act (MBTA) and under the CDFW code. The MBTA is interpreted as protecting nesting birds from direct impacts while the CDFW code protects nests from direct and indirect impacts.

Habitat both within and adjacent to the Project site could provide suitable nesting habitat for numerous bird species known to the region. Several bird species were observed that have the potential to nest in the Study Area.

Raptors. Five raptor species were observed in flight in the Study Area during biological surveys:

- Cooper's hawk,
- red-tailed hawk [*Buteo jamaicensis*],
- red-shouldered hawk [*Buteo lineatus*],
- turkey vulture [*Cathartes aura*], and
- American kestrel [*Falco sparverius*]

Other raptors have the potential to forage in the Project vicinity. The Project site does not provide high-quality raptor nesting habitat due to the limited number of trees, adjacent residential and commercial use, and location along existing roadways. Extensive raptor foraging habitat occurs in the undeveloped and agricultural fields adjacent to the Project site.

Impacts to raptors would be **potentially significant**. Adherence to mitigation requiring:

1. Avoidance, to the greatest extent feasible, of site preparation activities (ground disturbance, construction activities, and/or removal of trees and vegetation) during the nesting season of potentially occurring nesting species (February 15 to August 31);
2. A nesting raptor survey shall be conducted within the Project site, including a 500-foot buffer, no more than three days before vegetation removal if vegetation clearing is to occur between January 1 and February 15;
3. If site-preparation activities must take place during the nesting season (generally February 15 to August 31), a qualified biologist shall be retained to perform a pre-construction survey for nesting birds within three days before site-preparation activities, with appropriate follow-up depending on the results of the survey.

Adherence to mitigation measures BIO-2 and BIO-6 would ensure that potential impacts to birds protected under the MBTA and CFG Code are avoided during Project construction.

Urban/Wildlands Interface Guidelines (UWIG). Section 6.1.4 of the MSHCP addresses potential indirect impacts to MSHCP Conservation Areas via the Urban/Wildlands Interface Guidelines (UWIG). The Project does not occur adjacent to PQP land. Consequently, the Project follows the UWIG guidelines.

- **Drainage.** The proposed Project would incorporate measures to avoid the discharge of untreated surface runoff into downstream waters. Measures include those required for construction pursuant to the State Water Resources Control Board General Construction Stormwater Permit and those required post-construction pursuant to the National Pollutant Discharge Elimination System and Municipal Storm Drain requirements. The project is being designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, or other elements that might degrade or harm biological resources or ecosystem processes downstream from the project.
- **Toxics.** Land uses that use chemicals or generate bio-products that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall incorporate measures to ensure that the application of such chemicals does not result in a discharge into downstream waters. Measures, such as those employed to address drainage issues, would be implemented by the proposed infrastructure to avoid the potential impacts of toxics.
- **Lighting.** The project site does not occur directly adjacent to MSHCP Conservation Areas, which are separated by existing development and I-15. Therefore, lighting standards are not applicable.
- **Noise.** The project site does not occur directly adjacent to MSHCP Conservation Areas. Therefore, noise standards are not applicable.
- **Invasives.** The project shall not use invasive plants listed in Table 6.2 of the MSHCP for erosion control, landscaping, windrows, or other purposes.
- **Barriers.** Since the project site is not directly adjacent to the MSHCP Conservation Area, barriers or signage are not necessary.
- **Grading/Land Development.** The project does not propose the construction of manufactured slopes.

The approximately 92.53-acre Study Area was previously surveyed for the burrowing owl (*Athene cunicularia*), MSHCP Riparian/Riverine and Vernal Pool resources, sensitive plants, and aquatic resources.

Current surveys included confirming vegetation mapping and aquatic resource delineation, and a burrowing owl survey. No special-status plants were observed in the Study Area. Three sensitive animals, which are MSHCP covered species, were observed: Cooper's hawk (*Accipiter cooperi*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Fifteen additional special-status animal species have high or moderate potential to occur in the Study Area. The aquatic resources delineation resulted in mapping various MSHCP Riparian/Riverine features in thirteen drainages. Ponded features in the Study Area are not MSHCP pools but have potential to support fairy shrimp; focused wet/dry season surveys are being conducted for fairy shrimp during the 2023-2024 rainy season.

The Project is consistent with conservation goals for MSHCP Criteria Cells. Proposed or existing MSHCP Cores and Linkages and conserved land do not occur within the Study Area, and the Project is not adjacent to Public Quasi-Public Lands. Surveys conducted within the Study Area include general biological surveys, aquatic resource delineations, a Riparian/Riverine and Vernal Pool habitat assessment, rare plant surveys, and burrowing owl (BUOW) surveys. Protocol wet season fairy shrimp surveys are being conducted during the 2023-2024 rainy season. Thirteen drainages and swales, and seven shallow depressions (potential seasonal pools) occur in the Study Area. Ten of these drainages meet the definition of an MSHCP Section 6.1.2 Riparian/Riverine feature, but no MSHCP Riparian/Riverine species were observed. No BUOW or special-status plant species were observed during surveys. Three MSHCP covered animal species were observed. Project mitigation for special-status animals includes pre-construction nesting bird and BUOW surveys, and agency negotiation for any Project impacts to listed fairy shrimp.

The Project would result in permanent and temporary impacts to 60.27 acres of land. Given that the project is the widening of an existing roadway, most of these impacts occur to Developed/Disturbed Lands (residential/urban/exotic). Project impacts include 0.05 acres of mulefat scrub, 0.07 acre of southern willow scrub, and 0.03 acres of tamarisk scrub that are MSHCP Riparian resources. Habitat mitigation consists of payment of the MSHCP mitigation fee.

The Project would also result in permanent impacts to 0.18 acre of non-wetland waters of the State and 0.15 acre of wetland waters of the State, as well as temporary impacts to 0.26 acre of non-wetland waters of the State and 0.03 acre of wetland waters of the State regulated by the Regional Water Quality Control Board (RWQCB) pursuant to CWA Section 401. The Project would result in permanent impacts to 0.21 acre of streambed and 0.12 acres of riparian habitat regulated by the California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game (CFG) Code Sections 1600 et seq., and temporary impacts to 0.25 acres of streambed and 0.03 acres of riparian habitat. In addition, the Project would result in permanent impacts to 0.20 acre of riverine resources and 0.12 acre of riparian resources regulated under

MSHCP Section 6.1.2. Temporary impacts would occur to 0.25 acre of riverine resources and 0.03 acres of riparian resources. Mitigation for permanent impacts is proposed to occur at a minimum 1:1 ratio, with the final ratio to be determined during the negotiation with the resource agencies during the permitting process. Mitigation is proposed to occur via the purchase of re-establishment and rehabilitation credits off-site at another agency-approved property owned by the City (the existing Riverpark, San Luis Rey, and Barry Jones (aka Skunk Hollow) Mitigation Banks have no remaining credits). Mitigation for temporary impacts is proposed to occur via off-site restoration to pre-project conditions.

The proposed project will require mitigation for impacts to vegetation communities. Projects within the MSHCP plan area are subject to an MSHCP mitigation fee, which contributes to the funding required to implement the MSHCP. This fee provides for habitat mitigation since the MSHCP is a Habitat Conservation Plan that allows take of some habitat provided that other (more biologically valuable or strategically located) habitat is conserved. The fee for City roadway projects is five percent of the facility construction costs for the roads (Note that the portion of the project funded through Measure A are exempted from this fee).

In addition, a 2,070 square foot area south of the Elm Street ROW is located within a Criteria Cell, but has no covered road status. The proposed project does not propose full road widening south of Elm Street, but would make: 1) vertical adjustments to existing improvements; and 2) minor horizontal transitioning from the Elm Street intersection to existing pavement south of Elm Street. The MSHCP's Major Classification Road designation for Elm Street encompasses a 118' wide Right of Way, which is larger than the City of Murrieta's 100' wide ROW (Note that the redlined transition area in Figure 12a below is based on the City's 100' ROW). The impacts of these minor improvements would be less than significant.

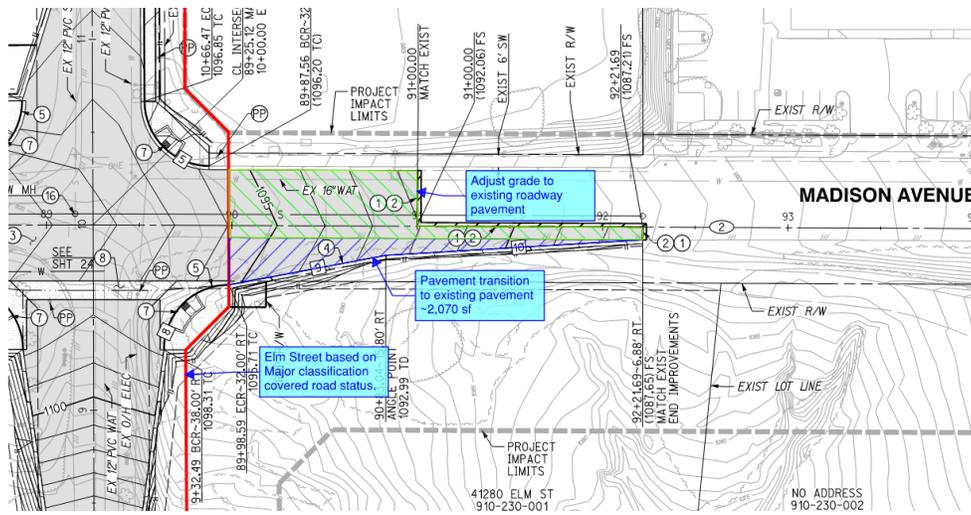
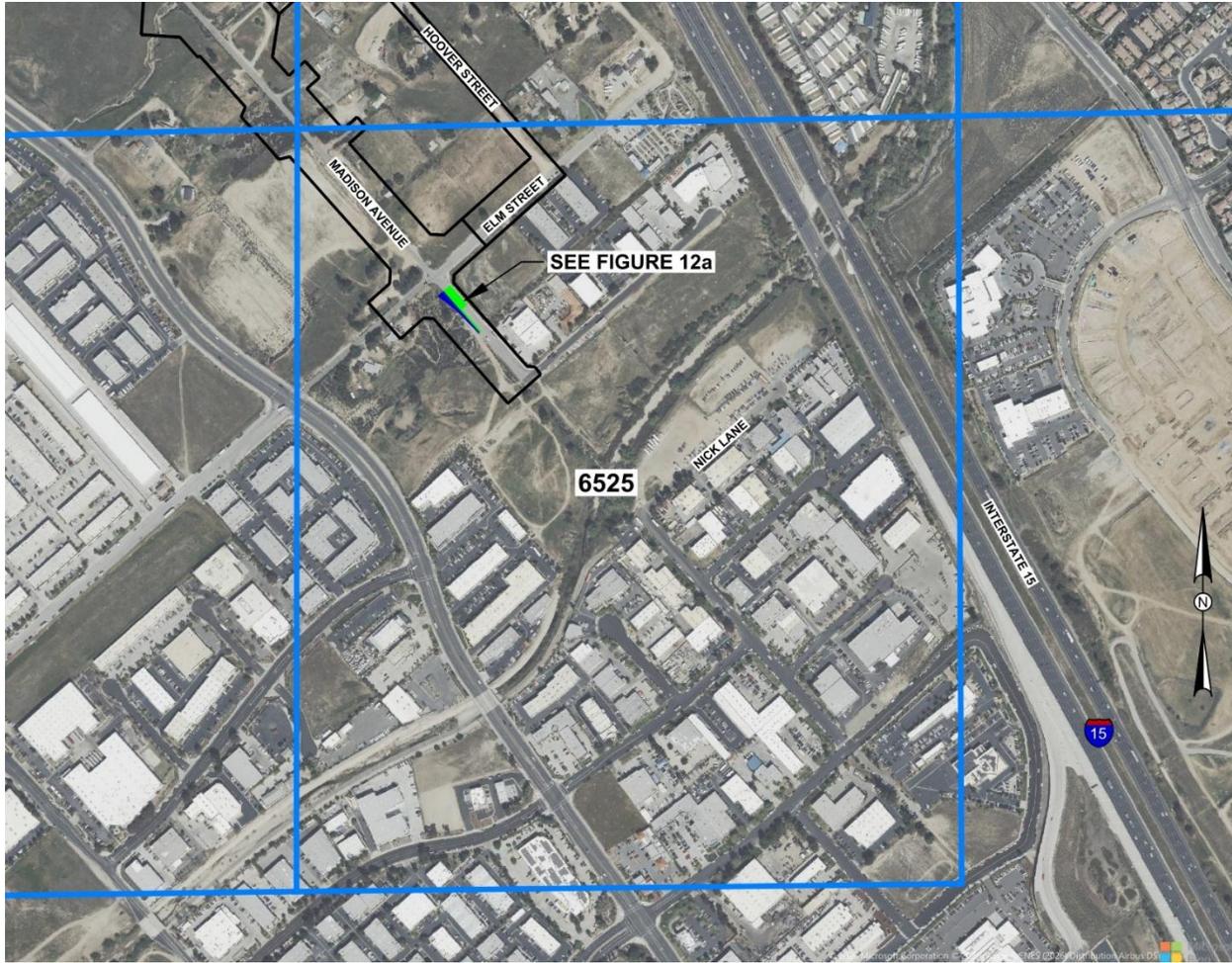


Figure 12a: Elm Street Incursion into MSHCP Criteria Cell

The areas temporarily impacted for construction laydown areas will be returned to pre-construction grades and compaction. These areas will be revegetated with native plantings and/or hydroseeded with a native seed mix. Therefore, the preparation of a restoration plan should not be required.

4.4.4 Mitigation and Residual Impacts

BIO-1 MSHCP Local Development Mitigation Fee (LDMF). The MSHCP requires a fee of five percent of the capital cost of the project for City road projects. The fees shall be either collected by, or submitted to, the Western Riverside County Regional Conservation Authority (RCA).

Plan Requirements/Timing: Prior to initiation of earth disturbance, the City Project Engineer shall ensure payment of the appropriate MSHCP LDMF in accordance with the MSHCP Mitigation Fee Implementation Manual (RCA 2022), as updated.

Monitoring: The City Project Engineer shall ensure compliance.

BIO-2 Pre-construction Burrowing Owl Survey. A Pre-Construction Survey for burrowing owls shall be conducted no more than 30 days prior to initial ground-disturbing activities (e.g., vegetation clearing, clearing, and grubbing, grading, tree removal, site watering, equipment staging, etc.). The survey shall be conducted by a USFWS- and/or CDFW-approved biologist in order to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities.

- a. If no burrowing owls are detected during the Pre-Construction Survey, no further mitigation is required.
- b. If burrowing owls are detected on the project site prior to the initiation of ground-disturbing activities, the City Project Engineer shall inform the RCA and the Wildlife Agencies within three days of detection and coordinate further as necessary. Additional coordination includes the possibility of a Burrowing Owl Protection and Relocation Plan requirement prior to initiating ground disturbance.
- c. If active burrowing owl burrows are detected onsite during project implementation and construction, the Project Engineer shall ensure that no ground-disturbing activities are conducted until:
 - an approved biologist concurs that there is no indication of burrows being used by adult or juvenile owls; or

- a CDFW-approved Burrowing Owl Protection and Relocation Plan is prepared and implemented as described below.

The Burrowing Owl Protection and Relocation Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and MSHCP. The approved biologist and City Project Engineer shall coordinate with CDFW and USFWS on development of the Plan, which shall describe proposed avoidance, relocation, monitoring, minimization, and/or mitigation actions. The Plan shall include: i) the number and location of occupied burrow sites; ii) details on proposed buffers if avoiding the burrowing owls; and/or iii) information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Plan. A final letter report shall be prepared by an approved biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW prior to the start of Project activities.

- d. If burrowing owls are observed within the Project Site during Project implementation and construction, the City Project Engineer shall notify CDFW immediately, and in writing within 48 hours of detection. A Burrowing Owl Protection and Relocation Plan shall then be prepared pursuant to the requirements above and submitted to CDFW for review and approval within two weeks of detection.

No Project activity shall occur prior to Plan approval within:

- 500 feet of active burrowing owl burrows:
 - during the breeding season of March 1 to August 31; or
 - if juvenile owls are present;
 - 250 feet of active burrows during the non-breeding season.
- e. If ground-disturbing activities commence, but the site is left undisturbed for more than 30 days, an additional Pre-Construction Survey for burrowing owl shall be conducted and reported to CDFW as described above. Detection of a burrowing owl or burrow shall be followed by the same procedure described above.

Plan Requirements/Timing: The City Project Engineer shall be responsible for coordination of the Pre-Construction Survey, and implementation of the Burrowing Owl Protection and Relocation Plan (if required, following CDFW and USFWS review and approval).

Monitoring: The City Project Engineer and designated construction inspector shall be responsible for implementing appropriate avoidance and mitigation measures, including burrow avoidance, passive or active relocation, or other appropriate measures as identified by the Pre-Construction Survey biologist and/or within the Plan. An approved biologist will verify adherence to the Plan.

BIO-3 Crotch's Bumble Bee Survey. In the event Crotch's bumble bee remains a candidate species or its status becomes elevated to a listed species under the California Endangered Species Act, a qualified biologist shall conduct updated protocol-level surveys in accordance with CDFW Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW, June 6, 2023) or subsequently adopted guidelines. Any modification to the survey protocol shall be submitted to CDFW for review and approval prior to survey implementation. The results of the survey shall be summarized in a survey report and submitted to CDFW prior to initiation of ground-disturbing activities.

Surveys shall be conducted to determine the presence/absence of Crotch's bumble bee during the appropriate flying season no more than two years prior to construction activities where suitable habitat occurs in direct impact area(s).

If the candidate State endangered listing is removed for Crotch's bumble bee and the species does not become listed as a State threatened or endangered species, then this measure and the additional measures below for California Endangered Species Act compliance (**BIO-4** and **BIO-5**) would no longer be required.

If Crotch's bumble bee is found to occur and has potential to be directly or indirectly adversely affected by construction, the City shall implement the avoidance and minimization measures described in mitigation measure **BIO-4**. The locations of any Crotch's bumble bee detected during the protocol survey shall be reported to the CDFW's CNDDDB through submittal of a CNDDDB Online Field Survey Form.

Plan Requirements/Timing: Prior to initiation of earth disturbance, the City Project Engineer shall confirm the status of Crotch's bumble bee protection and follow the required procedure, if any.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-4 Crotch's Bumble Bee Avoidance and Agency Consultation. If Crotch's bumble bee remains a candidate species or its status becomes elevated to a listed species under the California Endangered Species Act, and the species is found to occur within the direct impact area(s), the project proponent shall consult with the CDFW and implement measures to avoid or minimize impacts.

Unless otherwise directed by CDFW, the following measures shall be implemented:

a. **Flight Season Requirements:**

- Removal (i.e., vegetation clearing, crushing, trimming) of habitat suitable for Crotch's bumble bee shall be avoided during the species' flight season (February 1 through October 31), to the maximum extent feasible;
- Construction activities necessary during the flight season shall be preceded by a Pre-Construction Survey for Crotch's bumble bee queens, gynes, and colonies. The survey shall be conducted during suitable weather conditions in accordance with CDFW requirements by a CDFW-approved biologist no more than 14 days prior to construction.

If the findings of the survey are negative, no further assessment is required, and construction activities may proceed.

- b. **Active Nest Site Requirement:** If an active Crotch's bumble bee nest site is detected, a minimum 50-foot avoidance buffer shall be established by the approved biologist. Construction activities shall avoid any active nest sites until the approved **biologist** has verified that the nesting colony is no longer active.
- c. **Bumble Bee Detection Requirement:** If Crotch's bumble bee is detected but no active nest sites are found, an approved biological monitor shall be present during vegetation removal activities occurring during: the queen flight period (February through March); the colony active period (March through September); and/or the gyne flight period (September through October). If Crotch's bumble bee is observed within the direct impact area during construction activities, the biological monitor shall immediately stop work activities within the area until the bumble bee freely moves away from the work area.

Plan Requirements/Timing: Prior to initiation of construction activities that could result in direct adverse impacts to Crotch's bumble bee, the City Project Engineer shall consult with the CDFW regarding potential effects to the species and, if required by CDFW in accordance with the California Endangered Species Act. If take of Crotch's bumble bee is expected, no construction activities with the potential to result in direct or indirect adverse impacts on Crotch's bumble bee shall occur until authorized by CDFW.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-5 Compensatory Mitigation for Crotch's Bumble Bee. Direct impacts to Crotch's bumble bee occupied habitat shall be mitigated at a minimum 1:1 ratio (in consultation with the CDFW in accordance with the California Endangered Species Act).

Mitigation that satisfies the fully mitigated standard may occur through one or more of the following:

- onsite and/or offsite habitat creation, restoration, and/or enhancement;
- acquisition and preservation of onsite and/or offsite lands demonstrated to be occupied by the species; and/or
- purchase of mitigation credits at an approved mitigation bank.

If mitigation occurs through habitat creation, restoration, and/or enhancement, a Habitat Restoration Plan shall be prepared and approved by CDFW.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance with all measures (e.g., avoidance, conservation) incorporated into any permits or authorizations issued by the applicable regulatory agencies.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-6 Nesting Bird Avoidance. All site-preparation and construction activities (including but not limited to earth disturbance, tree and vegetation removal) shall be avoided, to the maximum

extent feasible, during the nesting season of potentially occurring nesting species (generally February 15 to August 31).

- a. If site-preparation activities must take place during the nesting season (generally February 15 to August 31), a CDFW-approved biologist shall be retained to perform a Pre-Construction Survey, no more than three days prior to site preparation activities, for active nests of bird species protected by the MBTA or the California Fish and Game Code.

The City Project Engineer shall ensure adherence to the following:

1. An approved biologist, experienced in identifying local and migratory bird species of special concern, shall conduct the Survey using appropriate survey methodology, including nesting survey techniques for recognizing breeding and nesting behaviors, and locating nests. As appropriate, the Survey shall establish appropriate avoidance and minimization measures, including monitoring for efficacy.
2. The survey(s) shall be conducted at the appropriate time of day/night, during appropriate weather conditions. Surveys shall encompass all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.

If no active nests are confirmed to be present on the project site, no biological monitor is needed.

If active bird nests are confirmed to be present during the survey, an appropriate buffer zone shall be established. Minimum required buffers are: a) 500 feet from an active listed species or raptor nest; b) 300 feet from active passerine (perching birds or songbirds), sensitive, and protected bird nests (i.e., non-listed); and c) 100 feet from sensitive or protected songbird nests. Buffers shall be delineated and flagged, and no construction activity shall occur within the delineated area until: a) nesting species have fledged, and the nest is no longer active; or b) the nest has failed.

The approved biologist shall monitor the nest(s) at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist

determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers shall be halted until the nesting effort is finished (i.e., the juveniles are surviving independently from the nest). The biologist shall review and verify compliance until all nesting is complete, at which time work may resume within avoidance areas. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the City Project Engineer for mitigation monitoring compliance record keeping.

- b. **Nesting Raptor Survey.** Prior to vegetation clearing between January 1 and February 15, a Nesting Raptor Survey shall be conducted on the project site as well as a 500-foot buffer. The Survey shall be conducted by an approved biologist, no more than three days prior to vegetation removal.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance with all measures.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-7: Aquatic Resources Permitting and Mitigation. Prior to project activities occurring within jurisdictional aquatic resource areas, a Determination of Biologically Equivalent or Superior Preservation (DBESP) for impacts to MSHCP Section 6.1.2 riparian/riverine resources shall be prepared and submitted to the RCA, USFWS, and CDFW for approval. The DBESP report shall address the proposed permanent (0.33 acres) and temporary (0.28 acres) impacts, and the proposed mitigation sufficient to offset impacts to MSHCP riparian/riverine areas. Calculated mitigation is based on one of the following: 1) the purchase of a minimum of 0.33 acres of re-establishment and rehabilitation credits at the Riverpark Mitigation Bank and/or San Luis Rey mitigation bank or other agency approved mitigation bank; 2) purchase of a minimum of 0.33 acre of preservation credits at the Barry Jones Mitigation Bank; 3) restoration and improvements to a minimum of 0.33 acre of the features within and adjacent to the Study Area; 4) via off-site mitigation at a property owned by the City.

Plan Requirements/Timing: Prior to commencement of Project activities, the City Engineer shall coordinate with the regulatory agencies for permits and approvals, or confirmation that no permits or approvals are required, as applicable, from:

- USACE: Clean Water Act Section 404 Permit or documentation of no permit required.
- RWQCB: Clean Water Act Section 401 Water Quality Certification or Waste Discharge Requirements.
- CDFW: California Fish and Wildlife Code Section 1602 Streambed Alteration Agreement.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-8 Biological Monitor. Prior to commencement of on-site activities, a CDFW-approved biologist shall be retained to monitor vegetation clearing and/or grubbing activities.

The biological monitor shall: 1) attend the pre-construction meeting(s) and present information to all construction personnel about the sensitive resources in the project vicinity; 2) be present during the removal of vegetation in order to ensure that the approved limits of disturbance are not exceeded; and 3) conduct periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing.

Prior to construction activities occurring in areas containing sensitive biological resources, the biologist shall conduct worker training for recognition of sensitive biological resources and avoidance of those areas marked as sensitive biological resources.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance with all measures.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-9 Temporary Construction Fencing. Prior to construction, the temporary construction fencing shall be installed around all environmentally sensitive areas at the limits of approved work areas. These limits shall be identified on construction plans and shall include riparian/riverine resources and jurisdictional waters. Temporary construction fencing shall be installed under the direction of the biological monitor and shall be maintained and remain in place throughout the duration of Project construction.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance with all measures.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

BIO-10 Non-native Invasive Species Restrictions. No plant species contained in List 6.2 of the MSHCP shall be utilized on the project site, including but not limited to hydroseed mixes used for interim erosion control.

Plan Requirements/Timing: This requirement shall be listed on all Plans.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?		✓		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		✓		
c. Disturb any human remains, including those interred outside of formal cemeteries?		✓		

The following discussion is excerpted from the Phase I Cultural Resource Assessment for Madison Avenue Improvement Project (Applied Earthworks, September 2018), and the Cultural Resource Revalidation Memorandum (Applied Earthworks, May 2024) attached as Appendix 4.

4.5.1 Setting

Physical. The proposed Project area is situated within the Peninsular Ranges province of southern California and lies on the Perris Block, a relatively stable crustal block bounded by the San Jacinto and Elsinore faults to the north and southwest, respectively. The Peninsular Ranges are a series of northwest trending mountains that extend from the Transverse Ranges south into Baja California, Mexico. The San Jacinto Mountains are located approximately 30 miles northeast of the Project, while the Pacific Ocean is roughly 25 miles to the southwest.

The Project area is located within the Temecula Valley, approximately 1.67 miles east of Murrieta Creek (the primary drainage through the valley, which joins Temecula Creek to form the Santa Margarita River, eventually emptying into the Pacific Ocean north of Oceanside), 1 mile southwest of the Temecula Hot Springs, and 2.6 miles to the northeast of the Santa Rosa Plateau, an ancient volcanic flow of basalt which forms the western edge of the Temecula Valley. The climate of the area consists typically of hot dry summers and cool moist winters, with July being the driest and warmest month of the year (LeCount and Weber 1992). The annual precipitation averages between 12 to 16 inches per year in the valley and between 20 to 30 inches in the mountains (RCD 2007).

Landforms in the area have middle to early Pleistocene alluvial deposits at the surface. These deposits developed between 500,000 to 1.8 million years ago. Very old deposits, mostly early Pleistocene, include the Pauba Formation, a fossil-bearing siltstone, sandstone, and conglomerate. Upper surfaces are frequently capped by pedogenic soils and have little to no potential for buried sites. Archaeological resources in such areas will typically be at or near the surface and clustered near vegetal or water resources as well as at contacts with Mesozoic units landforms that developed between 66 and 251 million years ago (Kennedy 2000; Morton 2001; Morton and Kennedy 2003). Holocene-age deposits made up of young alluvium are generally located along active and inactive watercourses.

Ethnographic. The proposed Project site is considered to be within the ancestral cultural territory of the Luiseño and potentially the Cahuilla Tribes, both of which speak a language of the Takic branch of the Shoshonean family, part of the larger Uto Aztecan language stock.

4.5.2 Thresholds

A cultural resource considered “historically significant” is considered a “historical resource,” if it is included in a local register of historical resources or is listed in or determined eligible for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14, California Code of Regulations [CCR], § 15064.5):

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important from our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history.

4.5.3 Impact Discussion

a, b, c. **Less than Significant with Mitigation Incorporated.** The following discussion is based on the work of Applied Earthworks, who provided a Cultural Resource Revalidation letter, dated May 16, 2024, confirming that the initial analysis remains valid. The letter also summarizes the results of the Assembly Bill 52 (AB52) formal government-to-government consultation process between the City and the Native American Heritage Commission (NAHC)-provided Native American individuals and organizations contact list.

An archaeological literature and records search was conducted (at the Eastern Information Center (EIC) of the California Historical Resource Information System (CHRIS), housed at the University of California, Riverside) to determine whether any prehistoric or historical cultural resources had been recorded previously within a Study Area encompassing a 1-mile radius of the Project area. The records search indicated that no less than 82 cultural resource studies have been conducted previously within the Study Area, three of which (RI-00768, RI-04664, and RI-06457) involved portions of the Project area. One hundred percent of the Project area has been surveyed previously as a result of these studies, which resulted in the identification and documentation of seven prehistoric archaeological sites, five isolated prehistoric artifacts, four historical archaeological sites, one site with both prehistoric and historic components, and nine historic built-environment resources within the Study Area (Table 3-1). None of these resources are documented within the Project area.

In addition, review of the 1901 Elsinore 30-minute USGS quadrangle, the 1942 Perris 15-minute USGS quadrangle, the 1942 and 1943 Murrieta 15-minute USGS quadrangles, and the 1953 and 1973 Murrieta 7.5-minute USGS quadrangles identified no structures, roads, or other features of interest within, or in the vicinity of, the Project area.

Applied Earthworks staff conducted archaeological field surveys on June 27, 2018, and February 28, 2024, which identified no cultural resources onsite. Based on the initial cultural resource study (George and Ollendorf 2018), which identified no archaeological or built-environment resources within the Project area and concluded that the presence of any significant buried archaeological remains within the Project area is unlikely. The Revalidation Memorandum recommends no further cultural resource management of the Project area and adherence to the original 2018 cultural resource assessment recommendations.

The cultural resource investigation identified no archaeological or built-environment resources within the Project area. While the results of the records search indicate that 26 previously recorded cultural

resources have been identified within one mile of the Project area, most of these resources are not within close proximity to the Project area.

Because the terrain throughout the Project area has been disturbed by residential development, utility installations, and road maintenance, it is unlikely that intact and significant buried archaeological remains are present; therefore, no further cultural resource management of the Project area is recommended.

In the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a qualified archaeologist can visit the site of discovery and assess the significance and integrity of the find. If intact and significant archaeological remains are encountered, the impacts of the Project must be mitigated appropriately. Any such discoveries, and subsequent evaluation and treatment, should be documented in a cultural resource report, which should be submitted to the EIC for archival purposes.

Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and Public Resources Code Section 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of human remains in a location other than a dedicated cemetery.

Finally, if the Project area is expanded to include areas not covered by this survey or other recent cultural resource studies, additional cultural resource studies may be required.

Adherence to the recommendations above would ensure that impacts to cultural resources are less than significant.

4.5.4 Mitigation and Residual Impacts

CUL-1 Cultural Resources Treatment and Monitoring Agreement. At least 30 days prior to the start of any ground-disturbing activities, the City shall contact the Consulting Tribe(s) to develop a Cultural Resources Treatment and Monitoring Agreement (“Agreement”). The Agreement shall address the treatment and final disposition of any tribal cultural resources, sacred sites, human remains, or archaeological resources inadvertently discovered on the project site, and/or in reburial areas; project grading, ground disturbance, and development scheduling; the designation, responsibilities, and participation of tribal monitor(s) during grading, excavation, and ground disturbing activities; and compensation for the tribal monitors, including overtime, weekend rates, and mileage reimbursements. The Tribal Monitor(s) shall have the authority to

temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archeologist.

Plan Requirements/Timing: The City Project Engineer shall ensure that the Agreement is completed and implemented.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

CUL-2 Pre-Construction Meeting. A qualified archeologist and tribal monitor shall attend a Pre-Construction Meeting with City staff, the contractor, and appropriate subcontractors to discuss the monitoring program, including protocols to be followed in the event that cultural material is encountered.

Plan Requirements/Timing: The City Project Engineer shall ensure that the Pre-Construction Meeting Agreement is scheduled and conducted.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

CUL-3 On-site Monitoring. A qualified archeological monitor and a tribal monitor shall be present for ground-disturbing activities. At least seven business days prior to project grading, the City shall contact the Consulting Tribe(s) and archeologist to notify them of grading/excavation and the schedule, and to coordinate with the Tribe and archeologist on the work schedule. Both the archeologist and the tribal monitor(s) shall have the authority to stop and redirect grading activities to evaluate the nature and significance of any archeological resources discovered within the Area of Potential Effect (APE).

Plan Requirements/Timing: The City Project Engineer shall ensure that contact is made, and information provided.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

CUL-4 Unique Discovery Clause. If, during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed.

Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribe(s).

- i. All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the contractor, the archeologist, the tribal representative(s) and the City to discuss the significance of the find.
- ii. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representative(s) and the archeologist, a decision shall be made, with the concurrence of the City, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.
- iii. Grading or further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal monitors if needed.
- iv. Treatment and avoidance of the newly discovered resources shall be consistent with the mitigation measures for the project. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property, so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition.
- v. If the find is determined to be significant and avoidance of the site cannot be achieved, a Phase III data recovery plan shall be prepared by the project archeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan. vi. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the landowner and the Tribe(s) cannot agree on the significance or the appropriate mitigation for the archaeological or cultural resources, these issues will be presented to the City Planning Director for decision. The City Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archeological resources, recommendations of the project archeologist and shall take into account the cultural and religious principles and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the City shall be appealable to the Planning Commission and/or City Council.

Plan Requirements/Timing: The City Project Engineer shall ensure the information is provided to monitor(s).

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

CUL-5 Disposition of Cultural Resources. In the event that Native American cultural resources are discovered during grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

- a) One or more of the following treatments, in order of preference, shall be employed with the tribes:
 - i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.
 - ii. Reburial of the resources on the Project property. The measures for reburial shall include, but not be limited to, the following:
 - Measures and provisions to protect the future reburial area from any future impacts in perpetuity.
 - Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded.
 - Any reburial process shall be culturally appropriate.
 - Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under confidential cover and not subject to Public Records Request.
 - iii. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation

facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner City to the City Consulting Tribe(s). There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance.

Monitoring: The City Project Engineer shall ensure compliance.

CUL-6 Ownership of Resources. The City shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts that are found within the project area, for proper treatment and disposition pursuant to the Agreement required in mitigation measure CUL-1 and CUL-5.

Plan Requirements/Timing: The City Project Engineer shall ensure compliance.

Monitoring: The City Project Engineer shall ensure compliance.

CUL-7 Human Remains. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the NAHC must be contacted within 24 hours. The NAHC must then immediately identify the most likely descendant(s) for purposes of receiving notification of discovery. The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

Plan Requirements/Timing: The City Project Engineer shall ensure that contact is made and information provided.

Monitoring: The City Project Engineer shall ensure compliance.

4.6 GREENHOUSE GAS EMISSIONS

Will the proposal result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

The following discussion is excerpted from the Air Quality and Greenhouse Gas Emissions Impact Assessment (Helix Environmental Planning Inc., May 6, 2024), attached as Appendix 6.

4.6.1 Setting

Physical. In Southern California, greenhouse gas emissions are a significant concern, with transportation being the largest source, accounting for 39% of total statewide emissions in 2022.

REGULATORY

State. Greenhouse gases, as defined under California’s Assembly Bill (AB) 32, include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is a source of substantial amounts of GHG emissions. The statute states:

Global warming poses a serious threat to economic wellbeing, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

To help avert these potential consequences, AB 32 established a state goal of reducing GHG emissions to 1990 levels by the year 2020, which was a reduction of approximately 16 percent from forecast emission levels, with further reductions to follow. In addition, AB 32 required CARB to develop a Scoping Plan to

help the State achieve the targeted GHG emission reductions. In 2015, Executive Order (EO) B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28-nation European Union. California exceeded the target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32. As a follow-up to AB 32 and in response to EO-B-30-15, Senate Bill (SB) 32 was passed by the California legislature in 2016 to codify the EO's California GHG emission reduction target of 40 percent below 1990 levels by 2030. Since then, AB 1279 established policy to achieve carbon neutrality no later than 2045 and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045.

To achieve these quantitative targets, CARB's Scoping Plan (approved in 2008 and updated in 2014, 2017, and 2022) provides a statewide implementation framework including regulations, incentives, and other programs. The most recent Scoping Plan update, adopted in 2022, lays out a path to achieve the targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279. Implementation of the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels; further reductions in short-lived climate pollutants; support for sustainable development; increased action on natural and working lands to reduce emissions and sequester carbon; and the capture and storage of carbon (CARB 2022b).

LOCAL

City of Murrieta Climate Action Plan (CAP). The City Climate Action Plan provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate, recommending GHG emissions targets consistent with the State, and presenting strategies that make it possible for the City to meet the recommended targets. The CAP also suggests best practices for implementation and makes recommendations for measuring progress. The CAP is intended to address the main sources of the emissions that cause climate change, which include emissions from the energy consumed in buildings and for transportation, as well as the solid waste sent to landfills. The CAP is intended to provide clear guidance to City staff regarding when and how to implement key provisions of the plan.

4.6.2 Thresholds

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new

development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG impact is limited to cumulative impacts.

There are no established federal, state, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance that require the implementation of GHG emission reduction measures. For the proposed Project, the most appropriate screening threshold for determining GHG emissions is the proposed SCAQMD Tier 3 screening threshold (SCAQMD 2010). Therefore, a significant impact would occur if the proposed Project would exceed the SCAQMD proposed Tier 3 screening threshold of 3,000 metric tons (MT) of carbon dioxide equivalent (CO₂e) per year.

In addition, a significant impact would occur if the project is inconsistent with the City's CAP. Projects that demonstrate consistency with the strategies, actions, and emission reduction targets contained in the CAP would have a less than significant impact on climate change (City 2020b). The following should be considered when determining consistency with the City CAP:

- Extent to which the project supports or includes applicable strategies and measures or advances the actions identified in the CAP;
- Consistency with the Murrieta General Plan Update population growth projections, which are the basis of the GHG emissions inventory projections;
- Consistency with the emission reduction targets set by the CAP; and
- Extent to which the project would interfere with implementation of CAP strategies, measures, or actions.

The seven Climate Action Strategies (CAS) identified in the CAP to reduce GHG emissions are as follows:

CAS 1 – Community Involvement Strategy is intended to foster a sense of ownership of the ideas and actions to be carried out within the City;

CAS 2 – Land Use and Community Vision Strategy encourages changes in the land use pattern to enable residents to reduce dependence on personal automobiles for transportation;

CAS 3 – Transportation and Mobility Strategy identifies opportunities to improve mobility through walking, cycling, and transit use to decrease automobile trips;

CAS 4 – Energy Use and Conservation Strategy recommends ways to increase energy efficiency in existing buildings, enhance energy performance for new construction, and increase use of renewable energy;

CAS 5 – Water Use and Efficiency Strategy is intended to conserve water through efficient use and conservation;

CAS 6 – Waste Reduction and Recycling Strategy intends to increase waste diversion, reduce consumption of materials that would otherwise end up in landfills, and increase recycling; and

CAS 7 – Open Space Strategy expands the utilization of open spaces for habitat, storm water management, soil retention, air filtration and cooling, aesthetic and economic value, local food security, increased and improved parks, preservation, and to create new open spaces.

4.6.3 Impact Discussion

a, b. **Less than Significant.**

Construction Emissions. Construction would result in GHG emissions generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod, as described above. The estimated construction GHG emissions for each phase of the Project are shown in Table 6, *Construction GHG Emissions*. For construction emissions, SCAQMD recommends that the emissions be amortized (i.e., averaged) over a 30-year period and added to operational emissions. Averaged over 30 years, the proposed construction activities would contribute approximately 36.1 MT CO₂e emissions per year. As discussed above, the Project would not result in increased GHG emissions from Project operation. The emission of 36.1 MT CO₂e per year resulting from Project construction would not exceed the SCAQMD threshold of 3,000 MT CO₂e per year, and the impact would be less than significant.

Table 6: CONSTRUCTION GHG EMISSIONS

Year	Emissions (MT CO ₂ e)
2027	736.0
2028	346.0
Total Construction Emissions¹	1,082.0
Amortized Construction Emissions	36.1
<i>SCAQMD Threshold</i>	<i>3,000</i>
Significant Impact?	No

Source: CalEEMod; SCAQMD 2010 ¹
 Total may not sum due to rounding.
 MT = metric tons; CO₂e = carbon dioxide equivalent

Operation Emissions. The Project proposes the widening and improvement of an existing roadway and would only generate emissions during construction. Rather, the Project would include features to promote multi-modal transportation thereby decreasing mobile source GHG emissions. Therefore, operational GHG emissions would have no impact.

CAP Consistency Evaluation. Project consistency with the City’s CAP is described below:

- *Extent to which the project supports or includes applicable strategies and measures or advances the actions identified in the CAP*

As described in the air quality analysis above, the Project would support and promote CAS 3, Transportation and Mobility, by providing roadway improvements that would include installation of bicycle lanes and pedestrian sidewalks, and by widening the roadway to improve circulation and reduce traffic. The applicable CAP measures include:

- *CIR-1.11 – Support the implementation of complete streets through a multi-modal transportation network that balances the needs of pedestrians, bicyclists, transit riders, mobility challenged persons, older people, children, and vehicles while providing sufficient mobility and abundant access options for existing and future users of the street system; and*
- *CIR-8.2 – Promote bicycle and pedestrian trails along major home to work and other travel routes (City 2020b).*

With these improvements, the proposed Project would decrease VMT and reduce time spent in traffic, thus generating fewer GHG emissions and supporting the CAP. Additionally, the Project would not conflict

with the remaining CAS: CAS 1 – Community Involvement; CAS 2 – Land Use and Community Vision; CAS 4 – Energy Use and Conservation; CAS 5 – Water Use and Efficiency; CAS 6 – Waste Reduction and Recycling; and CAS 7 – Open Space.

- *Consistency with the Murrieta General Plan Update population growth projections*

The proposed Project would not result in a direct increase in population or employment in the City. The Project proposes constructing Madison Avenue to a Secondary roadway, which has less capacity than the Major roadway planned for Madison Avenue in the City General Plan Update. Therefore, the Project would be consistent with the growth projections used in the GHG emissions inventory projections.

- *Consistency with the emission reduction targets set by the CAP*

The City's emission reduction targets were set at a level which demonstrates consistency with State targets and provides feasibility for most projects to achieve. Therefore, consistent with the CARB Scoping Plan and SB 32 goals, the City chose a reduction target of 40 percent below 2016 emission levels by 2030. As such, if the General Plan 2035 can reduce its GHG emissions by 40 percent below 2016 levels by 2030, a less than significant impact would result (City 2020b). The seven CAS, listed above, are devised to assist the City in reaching its reduction target. Therefore, because the proposed Project would support CAS 3, and would not interfere with any of the identified CAS, it would be considered consistent with the City's emission reduction targets.

Additionally, as previously discussed, the Project's increase in GHG emissions from construction activities would not exceed the SCAQMD screening threshold.

- *Extent to which the project would interfere with implementation of CAP strategies, measures, or actions*

As demonstrated in the above responses, the Project would be consistent with, and not interfere with CAP strategies, measures, or actions. Therefore, the Project would be consistent with the City's CAP and implementation of the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This would represent a less than significant impact.

As described above, construction emissions of criteria pollutants would be below SCAQMD thresholds and would be consistent with the AQMP, and sensitive receptors would not be exposed to substantial concentrations of TACs or odors. Thus, impacts to air quality would be less than significant and no

mitigation measures would be required. Construction GHG emissions would be below SCAQMD thresholds, and the Project would be consistent with the City’s CAP and would not conflict with applicable plans or policies. Therefore, GHG impacts would be less than significant.

4.6.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.7 ENERGY

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

4.7.1 Setting

Physical. The proposed Project site is located within the South Madison Avenue Business Corridor in the City of Murrieta. The proposed Project would involve construction activities requiring the use of equipment powered by carbon-based fuels. However, adherence to South Coast Air Quality Management District (SCAQMD) regulations, as well as the maintenance of equipment for optimal performance, would minimize fuel consumption during construction.

Regulatory. There are no state or local plans for renewable energy or energy efficiency directly applicable to the construction energy consumption from a roadway improvement or an infrastructure installation project. However, a project’s energy consumption is closely related to a project’s GHG emissions.

4.7.2 Thresholds

Federal and state agencies regulate energy use and consumption through various means and programs. Federal and state agencies influence and regulate transportation energy consumption through the establishment and enforcement of fuel economy standards for automobiles and light trucks, funding of

energy-related research and development projects, and funding for transportation infrastructure improvements.

City of Murrieta Climate Action Plan (CAP). The City Climate Action Plan provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate, recommending GHG emissions targets consistent with the State, and presenting strategies that make it possible for the City to meet the recommended targets. The CAP also suggests best practices for implementation and makes recommendations for measuring progress. The CAP is intended to address the main sources of the emissions that cause climate change, which include emissions from the energy consumed in buildings and for transportation, as well as the solid waste sent to landfills. The CAP is intended to provide clear guidance to City staff regarding when and how to implement key provisions of the plan.

4.7.3 Impact Discussion

- a) **Less than Significant Impact.** Energy usage is typically quantified using the British thermal unit (Btu) and large quantities of energy are often reported as million Btu (MBtu). Approximate amounts of energy contained in common energy sources are gasoline—0.124 MBTU per gallon and diesel—0.139 MBtu per gallon. The project would involve the consumption of energy resources during construction. Construction of the project is estimated to last approximately 18 months during which time diesel and gasoline fuel is anticipated to be the primary energy consumed. It is not anticipated that the project would require significant use of natural gas or electricity (from the electrical grid) during construction. As a result, natural gas and electricity use during construction would be temporary and a negligible portion of the total construction energy. Diesel and gasoline fuel consumption would be associated with heavy-duty equipment, haul trucks involved in the transport of soil and construction materials, and workers commuting to and from the site.

Total petroleum consumption would be temporary and would cease upon completion of project implementation, would be typical of similar roadway construction projects, and would not require the development of new energy resources and distribution infrastructure. Once operational, the project would not result in increased energy usage beyond the energy usage of the road segment without implementation of the project. Based on these considerations, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the impact would be less than significant.

- b) **Less than Significant Impact.** As indicated in the subject GHG analysis, the project’s GHG construction emissions would not exceed the SCAQMD threshold, and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the City’s CAP. The proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and the impact would be less than significant

4.7.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.8 GEOLOGY / SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area of based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? 		✓		
b. Result in substantial soil erosion or the loss of topsoil?		✓		
c. Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			✓	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

The following discussion is based on the contents of the Paleontological Resources Assessment for the Madison Avenue Improvements Project (Applied Earthworks, September 2018), attached as Appendix 3.

4.8.1 Setting

Physical. The proposed Project Area is located in Geology Study Area 1 – Southwest Murrieta/Jefferson Business Corridor: The major retail and light industrial agglomeration within Murrieta and located generally west of the Golden Triangle along the west side of Interstate 15 (I-15), south of Kalmia Street and north of the City’s southern boundary (Seismic and Geologic Hazards Review, General Plan 2035).

The City is located within the northern portion of the Peninsular Range geomorphic province which is characterized by steep, elongated valleys and ranges that generally trend northwestward from the tip of Baja California to the Los Angeles Basin. More specifically, Murrieta is situated within two structural blocks or subdivisions of the Peninsular Range province and underlain by several surficial deposits and/or bedrock units. The western foothill boundary of the City is within the Santa Ana Mountains block, and the east portion is within the Perris block. The provinces are separated by the active Elsinore fault zone, which forms a complex pull-apart basin (locally referred to as the Temecula Valley) that is filled with sedimentary deposits. The relatively stable Santa Ana Mountains and Perris Block are underlain by pre-Cretaceous aged metasedimentary rocks and Cretaceous aged plutonic rocks of the southern California batholith. Tertiary-aged sediments, volcanics, and Quaternary-aged sediments flank the Santa Ana mountain range to the west, elevated portions of the valley floor, and within the western flanks and localized valleys of the Perris Block. The Quaternary sediments include the “Unnamed” Sandstone, Pauba Fanglomerate, Pauba Sandstone, and younger alluvial sediments. See Figure 15.

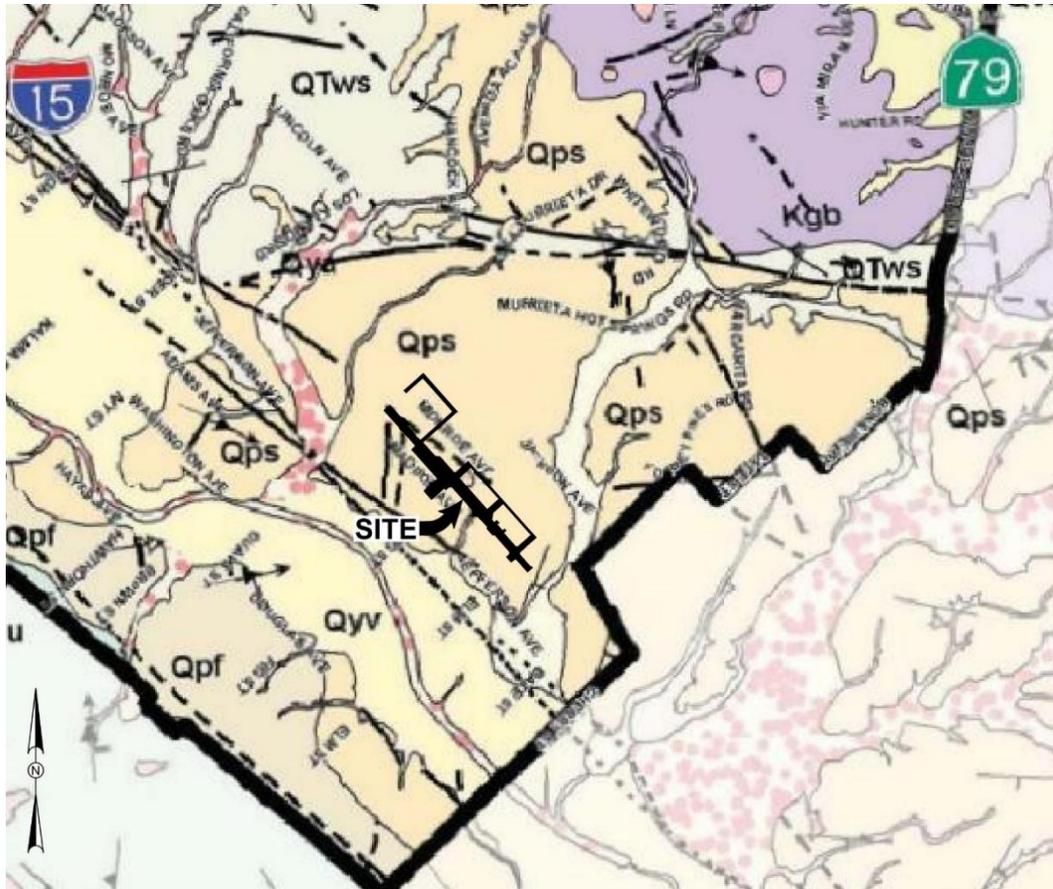


Figure 15: Regional Geology

Qps - Pauba Formation, sandstone member. The Pauba-sandstone formation (Pleistocene) is moderately well-indurated, extensively crossbedded, channeled and filled sandstone and siltstone that contains local intervening cobble-and-boulder conglomerate beds. The formation is generally found in the southern half of the City including portions of Area 1 and most of Area 2 (Golden Triangle: north of the intersection of I-15 and I-215 and south of Los Alamos Road).

Qyv – Young alluvial-valley deposits. These alluvial flood plain deposits (Pleistocene, younger than 500,000 years) are generally found along the main Murrieta Creek channel and expected to exceed 100 feet in depth. These deposits are found throughout the main channel areas of Area 1 (Southwest Murrieta/Jefferson Business Corridor: the major retail and light industrial agglomeration within Murrieta and located generally west of the Golden Triangle along the west side of Interstate I-15, south of Kalmia Street and north of the City’s southern boundary).

The City, like the rest of southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The most significant known active fault zones that are capable of seismic ground shaking and can impact the City are the Elsinore Fault Zone, San Jacinto Fault Zone, Newport-Inglewood Fault Zone, and the San Andreas Fault Zone. The project area is adjacent to the Wildomar Fault in the Elsinore Fault Zone, and Jackson Avenue, slightly southwest of the project area, is located in an Alquist Priolo Fault Zone.

The U.S. Department of Agriculture (USDA) web soil survey was reviewed for the types of soil occurring on the Study Area (NRCS 2024a). Soils in the Study Area represent seven soil series which include Arlington, Chino, Grangeville, Greenfield, Hanford, Monserate, and Ramona, as well as Gullied land and Riverwash (Natural Resources Conservation Service [NRCS] 2024a; Figure 6, *Soils*). The Arlington series is comprised of well-drained soils found in coastal and intermediate valleys of southern California. The Chino series is comprised of poorly to somewhat poorly drained soils in the coastal valleys and intermountain valleys of southern California and southern San Joaquin Valley of California. The Grangeville series are somewhat poorly drained soils that formed in moderate course textured alluvium and are associated with alluvial fans and floodplains. The Greenfield series are well-drained soils associated with alluvial fans and terraces that developed from granitic alluvium. The Hanford series consists of very deep, well drained soils associated with stream bottoms, floodplains, and alluvial fans. Soils in the Monserate series are comprised of moderately well to well drained soils found in the interior valleys in the western part of southern California. The Ramona series which are well-drained soils associated with alluvial fans and terraces that developed on granitic alluvium.

The specific soils present in the Study Area are:

- Arlington and Greenfield fine sandy loams, 2 to 15 percent slopes, eroded;
- Chino silt loam, drained, saline-alkali;
- Grangeville fine sandy loam, drained, 0 to 2 percent slopes;
- Greenfield sandy loam, 2 to 8 percent slopes, eroded;
- Gullied Land;
- Hanford course sandy loam, 2 to 8 percent slopes;
- Monserate sandy loam, 8 to 25 percent slopes, shallow, eroded, and severely eroded;
- Ramona and Buren loams to sandy loams, 5 to 25 percent slopes, severely eroded;
- Ramona sandy loam, 2 to 25 percent slopes, eroded to severely eroded; and
- Riverwash.

4.8.2 Thresholds

Alquist-Priolo Earthquake Fault Zoning Act (1972). The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties that contain such zones must inform the public regarding the location of these zones, which are usually one-quarter mile or less in width. Proposed development plans within these earthquake fault zones must be accompanied by a geotechnical report prepared by a qualified geologist describing the likelihood of surface rupture.

Seismic Hazard Mapping Act (1990). The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards. The Department of Conservation, California Geological Survey, identifies and maps areas prone to earthquake hazards of liquefaction, earthquake-induced landslides and amplified ground shaking.

California Building Code (2025). The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to firefighters and emergency responders during emergency operations.

California Health and Safety Code (2025). This code covers the areas of health and safety.

Public Resources Code. The Public Resources Code outlines laws and regulations related to the management and conservation of California's natural resources, including parks, recreation, and environmental protection

Construction Stormwater General Permit. The State Water Resources Control Board administers Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022), which regulates stormwater discharges associated with construction activities disturbing one or more acres of land.

4.8.3 Impact Discussion

- a. **Less than Significant with Mitigation Incorporated.** For projects within an area with known geologic hazards, the City of Murietta requires an area-specific Geologic Study which includes any

measures necessary to mitigate impacts related to fault rupture, ground shaking, landslides, liquefaction or dynamic settling, expansive or collapsible soils, lateral spreading, and other geologic and seismic hazards, prepared by a registered geologist or soils engineer.

i, ii, iii. According to the 2022 California Building Code (CBC), every structure, and portion thereof, including non-structural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE/SEI 7-16. Based on information obtained from the investigation, published geological literature and maps, and interpretation of the ASCE/SEI 7-16 criteria, the project site is believed to constitute Site Class–D, Stiff Soil. A site-specific ground motion hazard analysis is required for Site Class D sites with an S_1 greater than 0.2 g (with certain exceptions).

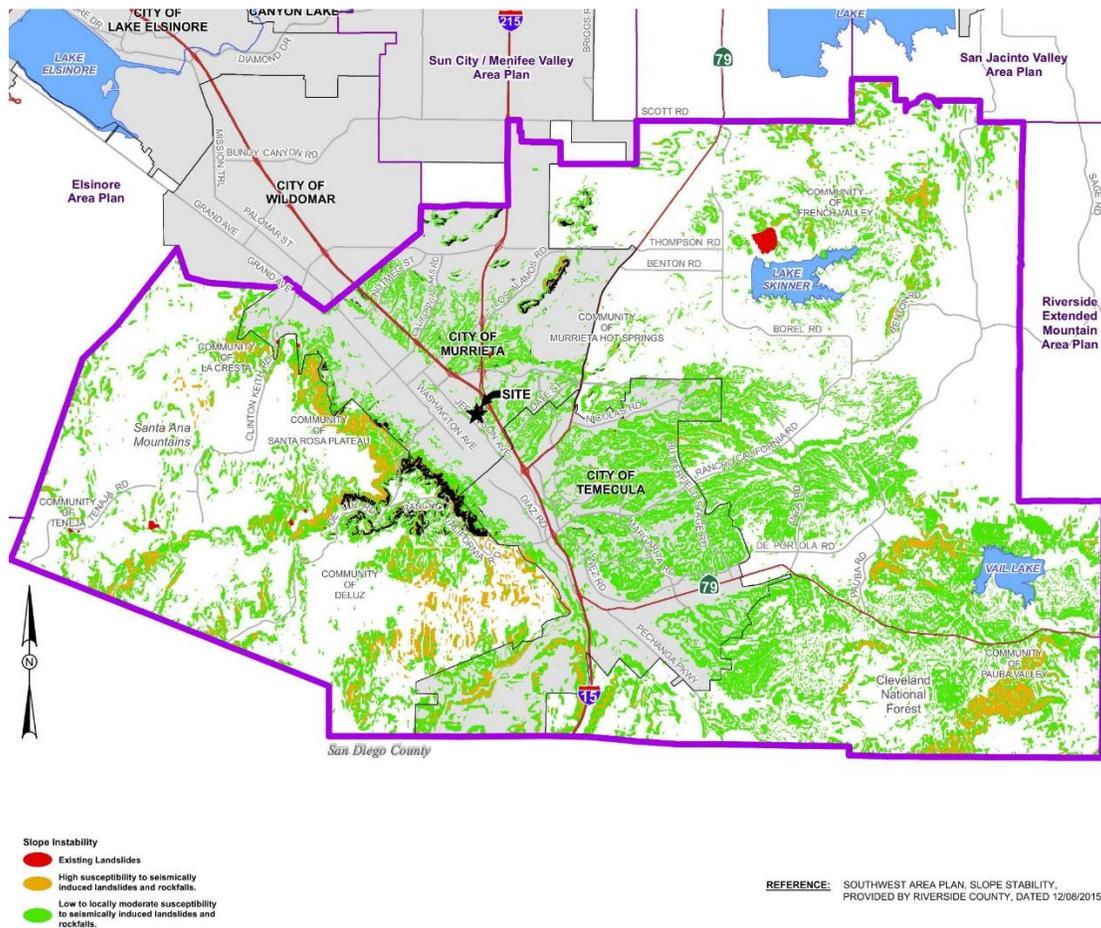


Figure 16: Slope Stability

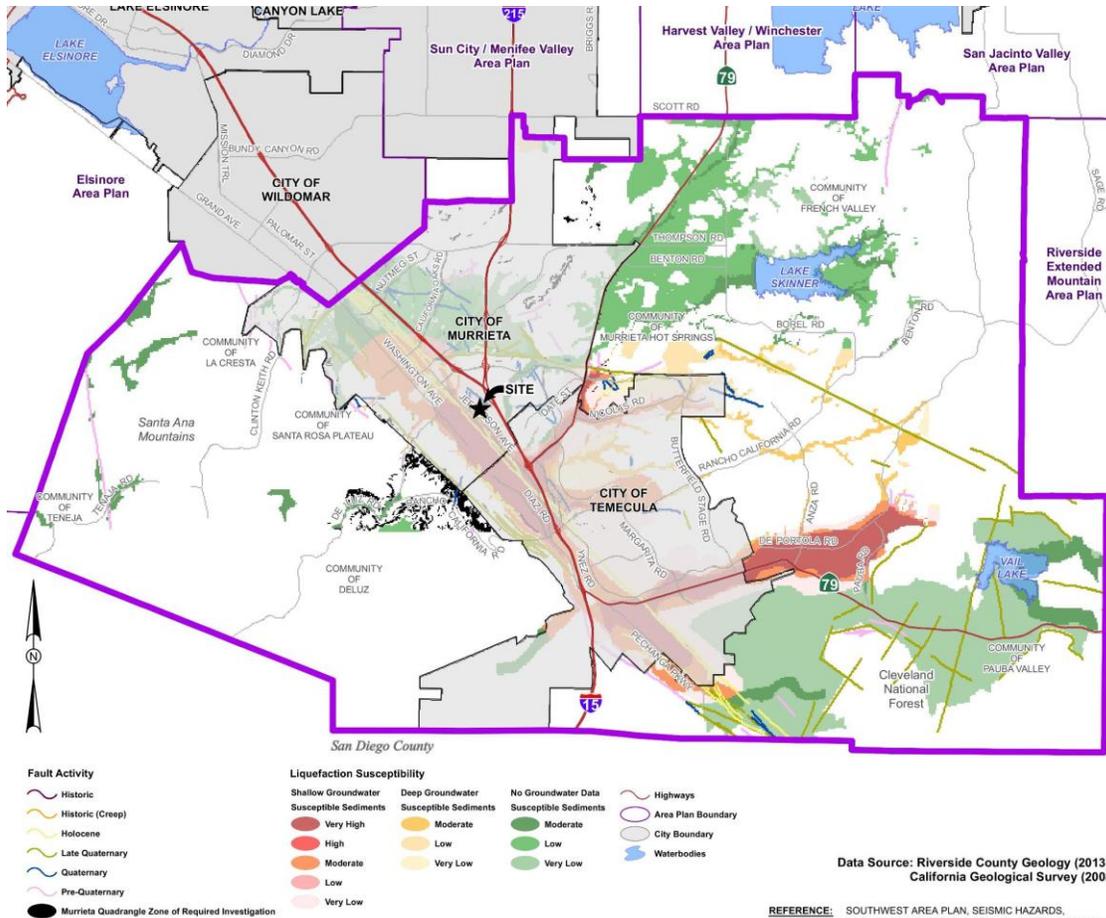


Figure 17: Liquefaction Susceptibility

Soil liquefaction is a phenomenon in which saturated, cohesionless soils lose their strength due to the build-up of excess pore water pressure during cyclic loading such as that induced by earthquakes. The primary factors affecting the liquefaction potential of a soil deposit are:

- 1) intensity and duration of earthquake shaking,
- 2) soil type and relative density,
- 3) overburden pressures, and
- 4) depth to groundwater. Soils most susceptible to liquefaction are clean, loose, uniformly graded, fine-grained sands, and non-plastic silts that are saturated. Silty sands and silts, under certain site conditions, may also be susceptible to liquefaction.

Generalized liquefaction potential zones have been mapped for areas of Riverside County (See Figure 17). The zones are based on generalized criteria for sediment types, groundwater levels, and ground shaking

potential. Based on the screening criteria used to develop the generalized maps, the roadways on Madison Avenue (B-1 through B-9) are identified as having a very low potential for liquefaction.

No groundwater was encountered in the borings drilled in the Madison Avenue from Guava Street to Elm Street from depths ranging from 8 to 36½ feet bgs indicating a very low potential for liquefaction to occur during a design earthquake event for the street improvement portion of the project.

- Proposed earthwork and grading would consist of cuts in the form of benching into the existing Pauba Formation and engineered fills up to approximately 9 feet thick, with fill slopes up to 16 feet. Planned gradients would be no steeper than 2:1 on cut and fill slopes. See Figure 15.

Adherence to the recommendations of the Site-specific Geotechnical Analysis required as Mitigation Measure Geo-1, including the following would ensure that impacts are reduced to less than significant levels:

Site preparation and earthwork operations shall be performed in accordance with applicable codes, safety regulations, and other local, state, or federal specifications. References to maximum unit weight should be established in accordance with the current ASTM Standard Test Method D1557 and may supersede references cited herein.

Stripping and Grubbing. Prior to general site grading, existing vegetation, organic topsoil, and debris should be stripped and disposed of outside the construction limits. Deeper stripping or grubbing may be required where concentrations of fill debris, organic and/or compressible soils, existing trees, or thick root mats are encountered during site grading. Stripped topsoil (less any debris) should be stockpiled and reused for the final slope surface. A minimum 4-inch-thick lift of topsoil should be spread and scarified into the outermost slope surface parallel to the slope contours. The final slope should be broadcast seeded (i.e., using a cyclone seeder, hydroseeder, or equivalent) to reestablish a drought resistant vegetated slope. With the exception of the final slope surfacing, the onsite topsoil with similar properties as tested in our laboratory should not be used as engineered fill.

In areas where existing bushes and large shrubs will be removed, care should be taken to remove the root-ball, roots exceeding 1-inch diameter, and remaining organics, and to backfill the excavations with compacted engineered fill. Tree removal in areas to receive fill should ensure removal of large roots and subsequent scarification and recompaction. Engineered fill should be placed and compacted in accordance with recommendations provided below.

Slope Construction. Existing undocumented fill soils should be removed. Grading limits and exposed soils should be observed by Kleinfelder during construction. Additional removals may be needed if unsuitable soils or other adverse conditions are observed.

Implementation of all recommendations in the Geologic Study, required as mitigation measure GEO-1, which requires a site-specific Geotechnical Investigation, would ensure that impacts are reduced to less than significant levels.

- b. **Less than Significant with Mitigation Incorporated** Potential short-term erosion and sedimentation impacts would be addressed through a Stormwater Pollution Prevention Plan (SWPPP), prepared specifically for the proposed roadway improvements, in accordance with the NPDES permit. The SWPPP would incorporate BMPs in accordance with the California Stormwater Best Management Practices Handbook to control erosion and protect the quality of surface water runoff during project construction. The use of sediment controls to prevent off-site sediment transport would be employed, potentially including silt fencing, fiber rolls, gravel bags, temporary sediment basins, street sweeping, sediment stockpiles, and use of properly fitted covers for sediment transport vehicles. Based upon compliance with the NPDES permit and implementation of a SWPPP (included as mitigation measure WR-1), impacts would be less than significant.
- c. **Less than Significant with Mitigation Incorporated.** See response to a.iv. above. The proposed project alignment is not located in an area that would be exposed to landslides. Implementation of mitigation measure GEO-1 would reduce impacts to less than significant.
- d. **Less than Significant Impact.** Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a significant increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content. Changes in the water content of an expansive soil can result in severe distress to structures constructed upon the soil. Development would occur within soils with some potential for expansion. The soil underneath the project alignment is identified as a variety of sandy and silty loam soil types, which have a low clay content and are not identified as having a shrink-swell potential (United States Department of Agriculture 2017). Therefore, impacts would be less than significant.
- e. **No impact.** As a roadway, and water and sewer line improvement project, the proposed Project does not include septic tanks. No impacts would occur.

- f. **Less than Significant with Mitigation Incorporated** A Paleontological Technical Study was prepared for the proposed Project (See Appendix 4). The technical study involved an analysis of existing paleontological data as well as a field survey of the project site. The analysis of existing data included a geologic map review, a literature search, and a museum records search at the Western Science Center (WSC) in Hemet, California.

Geologic mapping indicates that the project area is primarily underlain by Holocene- and late Pliocene-age young alluvial valley deposits (Qyva) and Pleistocene-age older alluvial flood plain deposits (Qoa). Within a half mile of the project area, Pleistocene-age Pauba Formation, Sandstone Member (Qp, Qpfs), Pleistocene-age Pauba Formation, Fanglomerate Member (Qpf, Qpff), Cretaceous-age tonalite undivided (Kt), and Cretaceous- and Jurassic-age metavolcanics and metasedimentary rocks (KJm) are present and may underlie the geologic units mapped at the surface within the project area at shallow depth. In addition, recent artificial fill (af) from previous development may be present within the bounds of the project area. Of these geologic units, two, the Pleistocene-age Pauba Formation and Fanglomerate Member (Qpf, Qpff), have high paleontological potentials. One unit, the Pleistocene-age older alluvial flood plain deposits (Qoa), has moderate paleontological potential. The remaining four units have either low or very low paleontological potential. Due to the presence of geologic units with moderate and high paleontological potentials, grading and other ground-disturbing activities associated with construction of the proposed Project would have the potential to destroy a paleontological resource, and impacts would be potentially significant. Therefore, the project would implement a paleontological monitoring program, as detailed in mitigation measures PAL-1, PAL-2 and PAL-3.

4.8.4 Mitigation Measures

GEO-1 Site-specific Geotechnical Investigation. A site-specific geotechnical investigation shall be completed prior to final site design approval by the City to identify site-specific criteria related to considerations such as grading, excavation, fill, and structure/facility design. All applicable results and recommendations from the geotechnical investigation will be incorporated into the project design and construction documents to address identified potential geologic and soil hazards, including but not necessarily limited to: (1) seismic hazards including ground rupture, ground acceleration (ground shaking), soil liquefaction (and related issues such as dynamic settlement and lateral spreading), landslides/slope instability, and seiche effects; and (2) non-seismic hazards including manufactured slope instability, subsidence/compressible soils, expansive or corrosive soils, and trench/excavation instability. The final project design and construction documents will also encompass applicable standard design and construction practices from established

regulatory/ industry sources including the California Building Code (CBC), International Building Code (IBC), California Geological Survey (CGS), Greenbook standards, as well as the results/recommendations of geotechnical review and field observations/testing to be conducted during project excavation, grading, and construction activities (with all related requirements to be included in applicable engineering/design drawings and construction contract specifications).

Plan Requirements/Timing: The City Project Engineer shall ensure that results of the investigation are incorporated into final design plans.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

PAL-1 Paleontological Resource Monitoring and Mitigation Plan. Prior to final site design, paleontological resource monitoring and mitigation plan (PRMMP) shall be prepared. The PRMMP shall provide:

- detailed recommended monitoring locations (as described in MM PAL-2);
- a description of a worker paleontological resource awareness program to inform construction personnel of the potential for fossil discoveries and of the types of fossils that may be encountered;
- detailed procedures for monitoring, fossil recovery, laboratory analysis, and museum curation; and notification procedures in the event of a fossil discovery (as described in MM PAL-3).

Plan Requirements/Timing: The City Project Engineer shall ensure that the plan requirements are incorporated into final design plans.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

PAL-2 Construction Monitoring. Full-time monitoring shall be required for all ground disturbances exceeding 2 feet below ground surface (bgs) in the Project area; no monitoring is required in areas where ground disturbance is less than 2 feet bgs. Monitoring shall entail the visual inspection of excavated or graded areas and trench sidewalls. If a paleontological resource is discovered, the monitor will have the authority to temporarily divert construction equipment within a 100-foot radius of the discovery until it is assessed for scientific significance and collected. Monitoring

efforts can be reduced or eliminated at the discretion of the Project Paleontologist if no fossil resources are encountered after 50 percent of the excavations are completed, or if buried crystalline bedrock, which has no paleontological resource potential, is encountered at depth within the area of excavation.

Plan Requirements/Timing: The City Project Engineer shall ensure incorporation of this requirement into the PRMMP.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

PAL-3 Fossil Preparation, Curation, and Reporting. All significant fossils collected during fieldwork shall be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation shall include the careful removal of excess matrix from fossil materials and stabilization and repair of specimens, as necessary. Following laboratory work, all fossil specimens shall be identified to the lowest taxonomic level, cataloged, analyzed, and prepared for curation. Fossil specimens shall be submitted for permanent curation in a museum repository approved by the City. At the conclusion of laboratory work and curation, a final report shall be prepared to describe the results of the paleontological inventory and evaluation. The report shall include an overview of the Project area geology and paleontology, a description of the field and laboratory methods, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If fossils are collected and prepared for curation

Plan Requirements/Timing: The City Project Engineer shall ensure incorporation of this requirement into the PRMMP.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

4.9 HAZARDS AND HAZARDOUS MATERIALS

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

4.9.1 Setting

PHYSICAL. A geologic hazard, or geohazard, is a natural phenomenon or adverse geologic condition capable of inflicting harm to people or property. The risk, or potential, for a particular geologic hazard at a site depends on the site location and geologic setting. Geologic hazards relevant to the proposed Project site are discussed below.

Faulting. The proposed Project site is in seismically active southern California and within the zone of influence for several faults which are considered active. Active faults may pose both surface fault rupture hazards and ground-shaking hazards. Surface rupture occurs when movement on a fault deep within the earth breaks through to the ground surface. Not all earthquakes result in surface rupture.

Surface Fault Rupture. The California Alquist Priolo (A-P) Earthquake Fault Zoning Act was passed in 1972 to regulate development and construction to avoid the hazard of surface fault rupture (CGS, 2018). The A-P Act established regulatory Earthquake Fault Zones (A-P zones) recognized active faults which require site-specific surface fault rupture hazard investigations. According to the A-P Act, an active fault is a fault that has experienced seismic activity during historic time (since roughly 1800) or exhibits evidence of surface displacement during Holocene time (the last 11,700 years). (Bryant and Hart, 2007; CGS, 2018, 2020).

Pre-Holocene faults are faults that have not moved in the past 11,700 years and thus do not meet the criteria of “Holocene-active fault” defined in the A-P Act (CGS, 2018). Pre-Holocene faults may be still capable of surface rupture but are not regulated under the A-P Act (only Holocene-active faults are regulated). Age-undetermined faults are faults where the recency of fault movement has not been determined. According to the A-P Act, age-undetermined faults within regulatory Earthquake Fault Zones are considered Holocene-active until proved otherwise (CGS, 2018).

There is no designated A-P Earthquake Fault Zone which crosses the proposed Project alignment. The nearest A-P Zone to the alignment is the Wildomar fault which is part of the Elsinore fault zone (Kennedy et al., 2003). The Wildomar fault is approximately 0.15-mile southwest of the alignment at its nearest point according to the USGS (2019) and 0.1-mile southwest of the alignment according to Kennedy et al. (2003). Riverside County recognizes County faults/fault zones in addition to A-P fault zones (Riverside County, 2023). For the Wildomar fault near the proposed Project alignment the County fault zone is larger than the A-P zone and extends into Madison Ave. Fault investigations are only required in A-P and County fault zones for habitable structures, or for special use structures such as schools or hospitals.

Two north-striking strands of the Wildomar fault are shown by Kennedy et al. (2003) crossing the alignment between boring locations B-1 and B-2, and between B-2 and B-3. The location of these faults has not been independently verified and is beyond the scope of work for this project. The pair of faults are not included in the USGS database of Quaternary active faults (2019), nor are they shown on other geologic maps of the site (Dibblee and Minch, 2008). These faults are considered not active (USGS, 2019).

Seismicity. The proposed Project site is within the zone of influence for several faults which are considered active or potentially capable of producing seismic shaking at the site that could be damaging to structures. It is anticipated that the project site will periodically experience ground acceleration as the result of moderate to large magnitude earthquakes on faults outside the immediate project area.

A number of earthquakes have occurred within the region of the site (approximately a 50-kilometer, or 31-mile, radius) during historic time (since 1800), including one earthquake on the Elsinore fault zone (Table 2). The largest of these historic earthquakes was a Mw 6.8 event on the San Jacinto fault zone 22.6 miles northeast of the project area (SCEDC, 2013; CGS, 2017).

Table 7: Historic Earthquakes within 50 km of Site (>Mw 6.0)

Earthquake Name	Distance (miles)	Magnitude (Mw)	Date	Latitude	Longitude
San Jacinto	15	6.8	4/21/1918	33.750014	-116.883430
North San Jacinto Fault	31	6.3	7/22/1923	33.999690	-117.238216
Elsinore	26	6	5/15/1910	33.749453	-117.450194

The proposed Project alignment is located adjacent and sub-parallel to the surface trace of the active Wildomar fault. The Elsinore fault zone, which includes the Wildomar fault, is capable of a probable earthquake magnitude of Mw6.5 - 7.5 (SCEDC, 2013). Therefore, there is a high potential for moderate to strong seismic shaking to occur during the design life of the project.

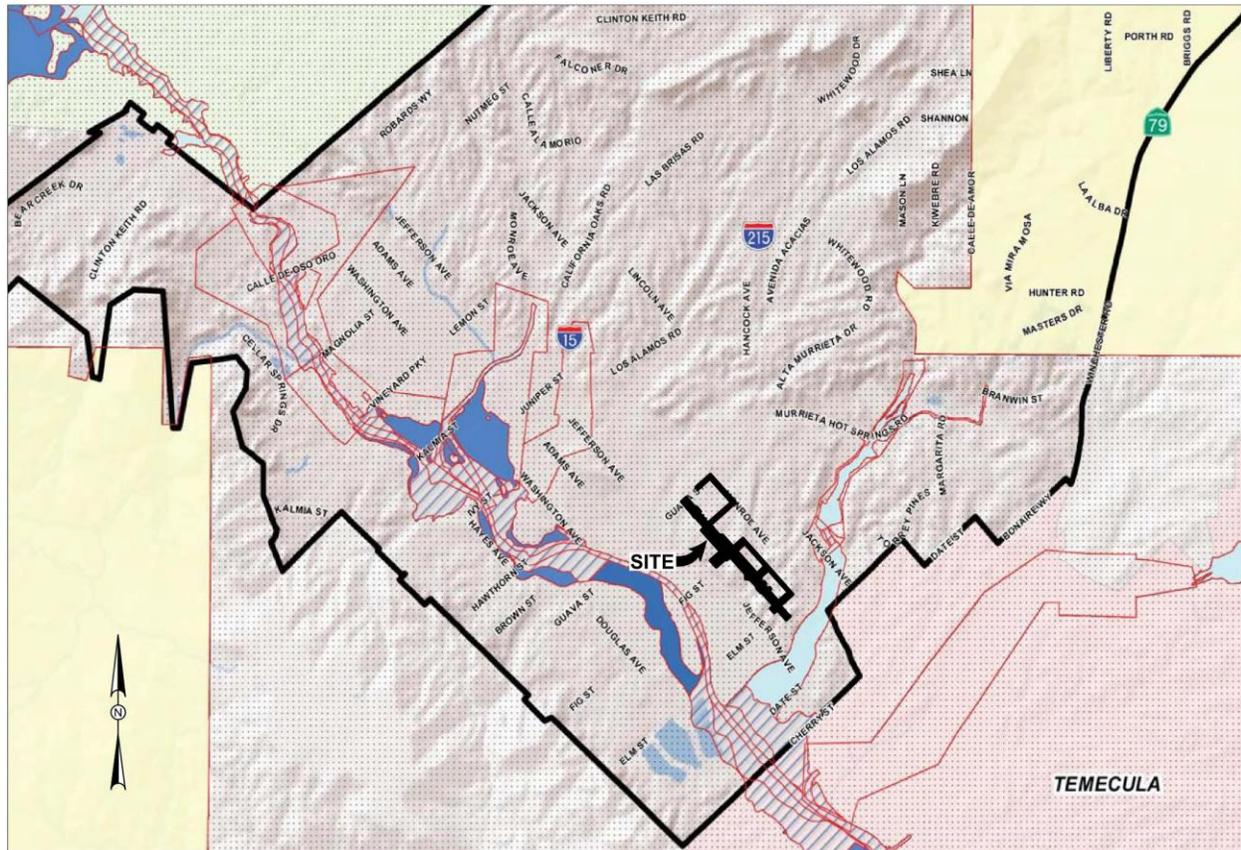


Figure 18: FEMA Flood Plain Areas.

Flooding. Flood Hazard Maps available through the Federal Emergency Management Agency (FEMA) show that the flooding hazard in the vicinity of the project alignment is limited to a narrow band along the course of Murrieta Creek to the west and Warm Springs Creek to the south (Figure 18).

Erosion. Erosion is a natural process that occurs on slopes, hillsides, and natural drainages. The proposed alignment is an area of mixed land use on an erosional surface of relatively low relief, and the risk of erosion is considered moderate where the alignment crosses drainages, and low elsewhere.

REGULATORY

FEDERAL

Resource Conservation and Recovery Act (RCRA). The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal Federal law in the United States governing the disposal of solid waste and hazardous waste.

Title 40 of the Code of Federal Regulations (40 C.F.R. pts. 239-282). The United States Environmental Protection Agency (U.S. EPA) waste management regulations, codified at 40 C.F.R. pt. 260, authorizes states to carry out many of the functions of RCRA through their own EPA-approved hazardous waste programs (and state laws).

Federal Emergency Management Agency (FEMA). FEMA advises on building codes and flood plain management, disaster assistance and emergency preparedness.

STATE

California EPA Department of Toxic Substance Control (DTSC). Upon delegation of CRA responsibility in 1992, the DTSC became responsible for implementing and enforcing California's hazardous waste laws, collectively known as the Hazardous Waste Control Law, and maintaining updated lists of hazardous wastes subject to regulation.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (1993). This program was created to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs. The Program, implemented at the local government level by Certified Unified Program Agencies (CUPA), consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs: Hazardous Waste Generation (including on-site treatment under Tiered Permitting); Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or "SPCC"); Underground Storage Tanks (UST); Hazardous Material Release Response Plans and Inventories;

California Accidental Release Prevention Program (Cal ARP); and Uniform Fire Code Hazardous Material Management Plans and Inventories.

Accidental Release Prevention Program Law (CalARP Program). The CalARP Program (California Health and Safety Code Section 25531-25543.3) provides for consistency with Federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the State and Federal programs. State and Federal laws are similar in their requirements. The CalARP is implemented by the CUPA and requires that any entity maintaining a regulated substance which exceeds the specified maximum threshold quantity, register with the County as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. CUPA makes the plans (which must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location) available to emergency response personnel.

California Code of Regulations (CCR) Title 26, Toxics. Transportation of hazardous materials/wastes is regulated by CCR Title 26. The Federal Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) enforce Federal and State regulations and respond to hazardous material transportation emergencies. Emergency responses are coordinated as necessary between Federal, State and local governmental authorities and private persons through the Murrieta Emergency Operations Plan.

California Division of Occupational Safety and Health (Cal/OSHA). Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

LOCAL

Regional Water Quality Control Board (RWQCB), San Diego Region (Region 9). The RWQCB is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater.

RIVERSIDE COUNTY

Community Health Agency-Department of Environmental Health. The Environmental Protection and Oversight Division (EPO) is one of the two divisions of the Department of Environmental Health (DEH). The EPO Division has regulatory control over a number of hazardous materials, land use and water system based programs. The Hazardous Materials Management Division (HMMD) is one of the three divisions of the Department of Health (DEH) of the Riverside County Community Health Agency. HMMD is the CUPA for Riverside County responsible for regulating hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans.

Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan. Table 6.6-2, Riverside County Local Jurisdiction Hazard Assessment Worksheet of Section 6.6, Emergency Response, provides a detailed identification and analysis of the hazards faced by Riverside County and the City according to the Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). Table 6.6-2 assigns each hazard a severity rating, indicating the amount of damage that would be done to the County and the City and its population should the hazard occur. Table 6.6-2 also assigns a probability rating, indicating the likelihood that the hazard may occur within the County and City. Both ratings are on a scale of 0-4, with 4 being the most severe or the most likely to occur. Within the County, hazardous materials accidents are assigned a severity rating of 3 and a probability rating of 3. Within the City, hazardous materials accidents are assigned a severity rating of 3 and a probability rating of 3.

Underground Storage Tank Clean Up Program. Under contract with the State WRCB, the Riverside County Department of Environmental Health, Local Oversight Program (LOP) oversees the investigation and cleanup of soil and groundwater contamination resulting from unauthorized releases of petroleum products (diesel fuel, gasoline, waste oil, etc.) from leaking underground storage tanks (UST). The cleanup of these sites is necessary to protect the groundwaters of the State from contamination and to protect the public from exposure to hazardous materials.

CITY OF MURRIETA

Emergency Operations Plan (EOP). The EOP addresses the planned response to extraordinary emergency situations associated with natural disasters, national security emergencies, and technological incidents affecting the City. The EOP describes the operations of the City Emergency Operations Center (EOC), which is the central management entity responsible for directing and coordinating the various City departments and other agencies in their emergency response activities. The EOC centralizes the collection and dissemination of information about the emergency and makes policy-level decisions about response priorities and the allocation of resources. As part of the City's Emergency Management Program, the EOC

Manager (Fire Division Chief) is responsible for ensuring the readiness of the EOC. The City has developed a set of quick response references (checklist) for the Murrieta EOC. The set checklist is located in Part Two of the City's Emergency Operation Plan. The checklist enumerates issues that are related to hazardous materials accidents.

4.9.2 Thresholds

CEQA Guidelines Appendix G thresholds of significance for hazardous materials impacts involve projects which:

- Create a significant hazard to the public or the environment through the routing transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Are located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- Are located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.3 Impact Discussion

a, b, f, g. **Less than Significant Impact.**

Short-term construction activities. Proposed Project construction would require the use of materials that are typically associated with construction activities, such as diesel fuels, hydraulic liquids, oils, solvents, and paint. Construction activities would employ standard construction controls and safety procedures to avoid or minimize the potential for accidental release of such substances. Hazardous materials used during project construction would be transported, used, and stored in accordance with state and federal regulations regarding hazardous materials. The

use of these materials would be temporary and impacts during construction would be less than significant.

Long-term operations. Regarding long-term operation, the project would not increase the use or disposal of hazardous materials in the area once constructed and operational. While the project would facilitate increased traffic capacity along Madison Avenue, it would not substantially increase the number or frequency of trucks or other vehicles transporting hazardous materials through the project area such that it would create a significant hazard to the public or the environment. Therefore, operational impacts in this regard would be less than significant.

- c. **Less than Significant Impact.** David L Long Regional Learning Center and Promise Lutheran Church and Christian Preschool are located at the northern portion of the proposed Project area along Madison Avenue. The proposed Project would comply with all federal, state, and local regulations regarding the transportation of hazardous waste should the removal of hazardous materials from the project area be necessary, ensuring that the surrounding properties, including the school and church, would not be adversely affected. Impacts would be less than significant.

- d. **Less than Significant Impact.** Based on a preliminary EDR report, a federally listed RCRA large quantity generator exists at the Rancho California Water District property located south of the project area at 26585 Madison Avenue. A small-quantity generator was identified south of the project area at Sterling Jaguar, located at 41135 Sandalwood Circle. Hood Precision Inc, located at 41152 Nick Lane is listed as an RCRA non-generator. Pursuant to Government Code Section 65962.5 (Cortese List) requirements, the SWRCB GeoTracker database (SWRCB 2020) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2020) were searched for hazardous materials sites within the project area. See Figure 19, SWRQCB Geotracker, and Figure 20, DTSC Envirostor for a depiction of listed sites in the project vicinity.

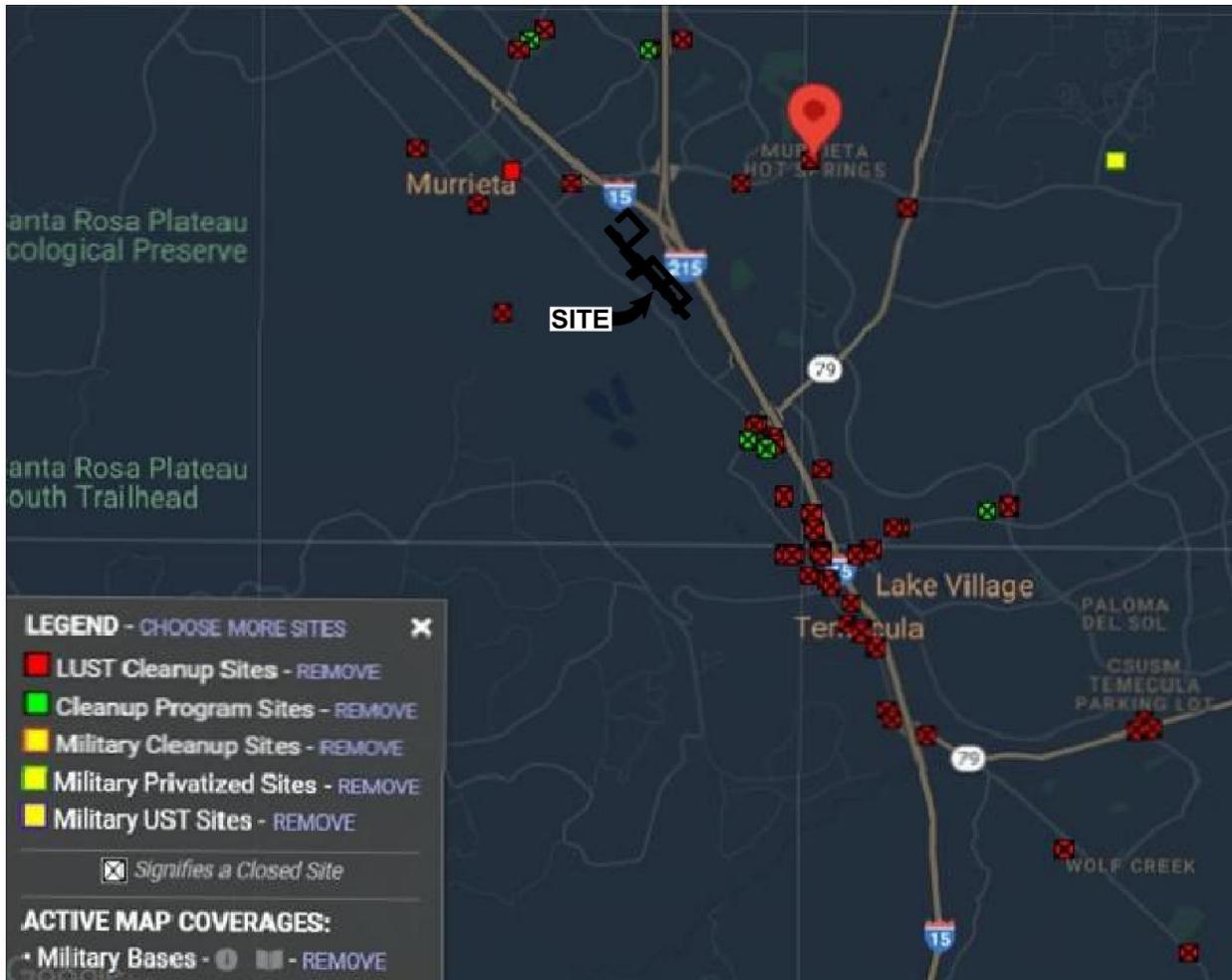


Figure 19: SWRQCB Geotracker (Excerpt)

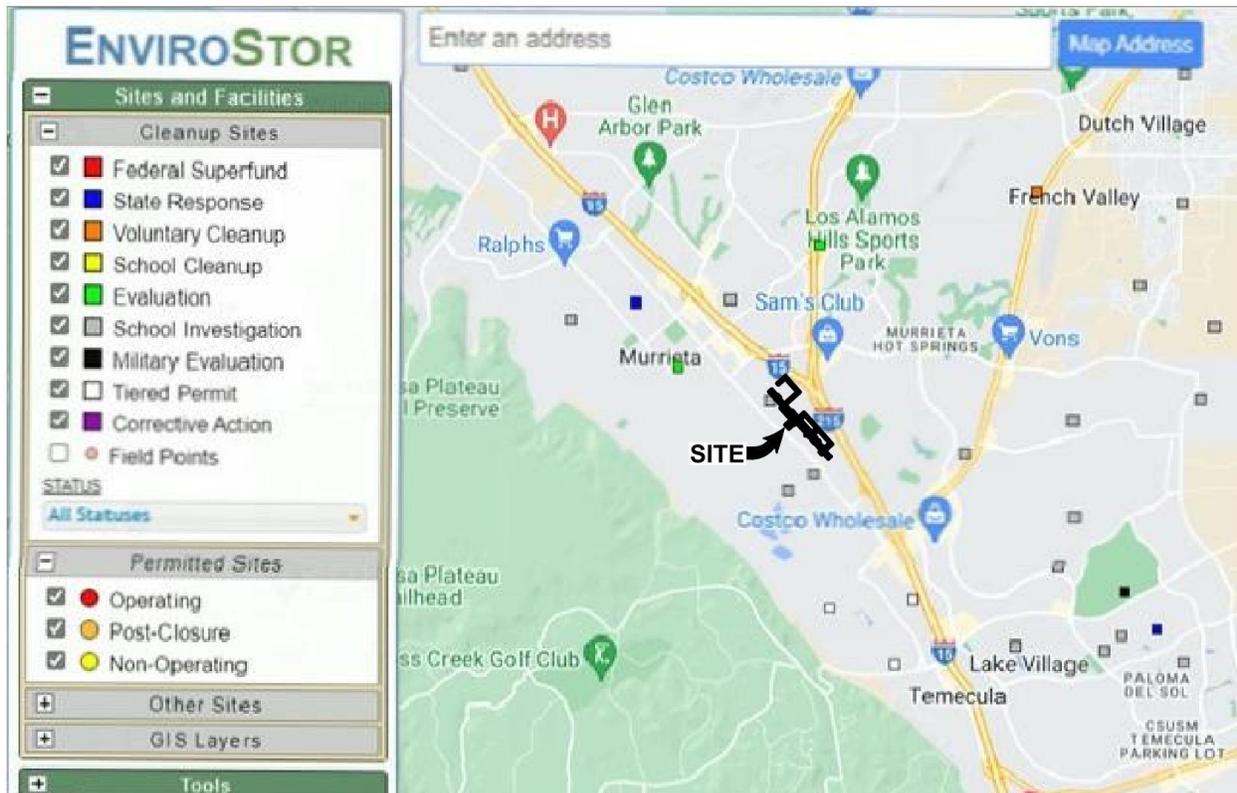


Figure 20: DTSC EnviroStor (Excerpt)

- e. **No Impact.** The proposed Project site is located approximately 3.5 miles east of the French Valley Airport, a County-owned public-use airport located on SR-7, north of the City of Temecula in their Sphere of Influence, and adjacent to the Murrieta’s eastern City boundary. At this distance, more than two miles, the proposed Project would not present a safety hazard to people residing or traveling in the project area.

- f. **Less than Significant Impact.** The proposed Project would be required to adhere to all the State and Local requirements identified in the Regulatory Setting section above. Adherence to these requirements would ensure that the proposed Project would not impair or conflict with adopted emergency response plans, or expose people to risk of loss, injury, or death from wildland fires.

- g. **Less than Significant Impact.** The proposed Project is located within a High Fire Zone. See Section 4.19, Wildfire. Consistent with Biological Resource mitigation measures, the proposed Project would implement brush clearing and other appropriate measures during construction to reduce the risk of fires in the project area. Impacts would be less than significant.

Mitigation and Residual Impacts: No mitigation is required. Residual impacts would be less than significant.

4.10 HYDROLOGY / WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		✓		
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: <ul style="list-style-type: none"> i) result in a substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows? 		✓		
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

The following discussion is based on the contents of the Preliminary Drainage Study for Madison Avenue Improvement Project From Guava Street to Elm Street (RICK Engineering Company, March 6, 2024) attached as Appendix 8.

4.10.1 Setting

PHYSICAL

Groundwater. The proposed Project site is in the Murrieta-Temecula Basin, the largest groundwater basin in the hydrologic unit assigned to the area drained by the Santa Margarita River. The Murrieta-Temecula Basin underlies approximately 60,000 acres and has an estimated storage capacity of 1.2 million acre-feet. The Basin extends from the Murrieta basin in the north to the base of the Aqua Tibia Mountains in the south, and east from the Santa Rosa Plateau to the mesa and valley areas. The Basin underlies all of portions of the Murrieta Creek channel, Warm Springs Creek, Pechanga, and Temecula Creeks, which serve as important sources of groundwater recharge for the underlying aquifers. Water flows from the Basin to the Lake Elsinore area in the northwest and to the Santa Margarita River to the southwest. Many wells extracting groundwater from this Basin are present within the Murrieta area.

There are no active or inactive groundwater wells listed in the groundwater database of the U.S. Geological Survey (USGS, 2024), and no active groundwater wells listed in the groundwater databases of the California Department of Water Resources (DWR, 2021) or State Water Resources Control Board (SWRCB, 2020) for the immediate vicinity of the project alignment. A preliminary field investigation included a subsurface exploration program consisting of: 1) excavating and logging ten (10) hollow-stem auger borings; in-place soil samples into the undisturbed soil at the bottom of each boring. Laboratory testing was performed on drive and bulk soil samples to estimate engineering characteristics of the various earth materials encountered. Preliminary investigation encountered groundwater in a boring drilled adjacent to Warm Springs Creek at a depth of approximately 20 feet bgs; no other groundwater was encountered to the approximately 36.5 feet bgs maximum depth explored in any of the borings drilled along the proposed alignment.

Monitoring data from the State database for inactive wells near the project alignment indicates:

- Monitoring wells for a service station approximately 1-mile northwest of project boring B-1 at 25336 Madison Ave. showed groundwater depths ranging from 10.7 feet to 16.5 feet bgs for the period of Oct. 2008 to Dec. 2009 (SWRCB, 2020).
- A monitoring well approximately 300-feet east of project boring B-13 showed a groundwater depth of 17.0 feet bgs in April 1968 (DWR, 2021).
- A monitoring well approximately 0.1-mile southwest of project boring B-7 showed a groundwater depth of 24.0 feet bgs in April 1968 (DWR, 2021).

Surface Water. The proposed Project alignment would be constructed along Madison Avenue from the intersection of Guava Street in the northwest to the intersection of Elm Street in the southeast, crossing two southwest-flowing drainages while traversing a rolling ground surface that slopes gently to the southwest toward Murrieta Creek, which flows southeast toward Temecula where it joins the Santa Margarita River as it flows west to the Pacific Ocean. Ground elevations along the alignment range from approximately 1,100 feet above mean sea level (msl) at the northwest end to approximately 1,055 feet msl at the southeast end. The proposed Project Study Area contains eight unnamed ephemeral drainages that flow only during or directly after rain events, and five swales with limited sign of flow.

Flooding. The proposed Project site is located well outside of the FEMA 100-year flood zone, which is limited to a narrow band along Murrieta Creek to the west (See Figure 18).

REGULATORY

FEDERAL

Clean Water Act (CWA). The Clean Water Act is a Federal law intended to protect surface waters of the United States (U.S.), which include lakes, rivers, coastal wetlands, and “waters of the U.S.” The CWA regulates all discharges to these waters, which are considered illegal unless authorized by an appropriate permit. Discharge of dredged and fill materials, construction-related storm water discharges, and other activities that may result in discharges of pollutants to waters of the U.S. are regulated by the permit Section 401 Water Quality Certification from the appropriate Regional Water Quality Control Board (RWQCB).

Section 404 of the CWA establishes a permit program for the discharge of dredge or fill materials into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE). If waters of the U.S. are located on or downstream of a project site, the project may discharge to them, and if impacts on them are anticipated, the project must obtain a CWA Section 401 Water Quality Certification from the appropriate RWQCB.

Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the U.S.

National Pollutant Discharge Elimination System (NPDES). The NPDES program is administered by the Environmental Protection Agency (U.S. EPA), which provides oversight in California to the Regional Water Quality Control Boards. NPDES permits are required to identify limits on allowable concentrations and mass emissions of pollutants contained in discharges. General requirements regarding NPDES permits are

given in Sections 401 and 402 of the CWA. NPDES regulations are intended to improve stormwater quality discharged to receiving waters to the “maximum extent practicable” (MEP) through the implementation of structural and non-structural Best Management Practices (BMPs).

Federal Emergency Management Agency (FEMA). FEMA’s primary mission is to reduce the loss of life and property and protect the Nation from all hazards, including flooding. FEMA advises on building codes and flood plain management; teaches people how to get through a disaster; helps equip local and state emergency preparedness; coordinates the federal response to a disaster; makes disaster assistance available to states, communities, businesses and individuals; trains emergency managers; supports the nation’s fire service; and administers the national flood and crime insurance programs. floodplain development. Flood risk data presented on FIRMs are based on historic,

STATE

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the State Water Resources Control Board (SWRCB). The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California’s surface waters and groundwater supplies. The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California’s rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

State Water Resource Control Board (SWRCB). The SWRCB administers water rights, water pollution control, and water quality functions throughout the State.

Regional Water Quality Control Boards (RWQCB). RWQCBs conduct planning, permitting and enforcement activities. Portions of the City are located within the jurisdiction of the San Diego RWQCB (Region 9) and the Santa Ana RWQCB (Region 8). The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). The MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP).

The State Water Resources Control Board adopted a statewide NPDES Construction Stormwater General Permit in 2009 to regulate stormwater discharges associated with construction activities disturbing one

or more acres of land. The statewide General Permit expired on September 2, 2014, and was replaced by Construction Stormwater General Permit Order 2022-0057-DWQ (adopted September 8, 2022). The new General Permit Order includes:

- New requirements to implement existing total maximum daily loads adopted by Regional Water Quality Control Boards into applicable basin plans.
- New requirements to address discharges from passive treatment technology uses and dewatering activities.
- New eligibility criteria for permit enrollment through a Notice of Non-applicability.
- Updates to the existing Notice of Termination process.
- Requirements to implement the California Ocean Plan and amendments to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries, including statewide Trash Provisions.
- Updated monitoring and reporting requirements.
- Antidegradation findings comply with federal and state antidegradation policies.
- New programmatic permit enrollment options for linear utility construction projects.

Sustainable Groundwater Management Act (SGMA). The Sustainable Groundwater Management Act requires the formation of groundwater sustainability agencies and development of sustainable groundwater management plan in high- and medium-priority groundwater basins and sub-basins.

LOCAL

County of Riverside

The County of Riverside and the City along with other incorporated cities therein (Permittees) discharge pollutants from their municipal separate storm sewer (drain) systems (MS4s). Stormwater and non-stormwater enter and are conveyed through the MS4s and discharged to the San Diego Region watersheds. These discharges are subject to countywide waste discharge requirements contained in Order No. R9-2013-0001 (NPDES Permit No. CAS0109266), which was adopted on May 8, 2013. 39 The MS4 Permit Order provides waste discharge requirements for MS4 discharges within the San Diego region watersheds, which includes Murrieta. Specifically, the City is within the Santa Margarita River watershed which includes the cities of Menifee and Wildomar, and portions of unincorporated County of Riverside, and the entire City of Temecula. Portions of the Santa Margarita River watershed within Riverside County is referred to as the “Santa Margarita Region of Riverside County”. Murrieta Municipal Code Chapter 8.36 requires compliance with the NPDES MS4 Permit water quality requirements. The MS4 Permit Order

requires development and implementation of a Water Quality Management Plan (WQMP) for all “New Development” and “Redevelopment” projects subject to the Order. New development and redevelopment projects/activities include all development projects equal to 1.0 acre or greater of disturbed area; and new development that creates 10,000 sf or greater of new impervious surface on a previously undeveloped site. The project development would impact approximately 60 acres and therefore is subject to the requirements set forth in the Riverside County Santa Margarita River Watershed Region Design Handbook for LID and BMPs for water quality.

The project site’s water purveyor, Western Water, uses imported water and local groundwater to meet the water needs of its service area. In 2020, Western Water imported 60 percent of its total water supply from the Metropolitan Water District of Southern California (Metropolitan). The remaining 40 percent came from groundwater from various basins. All the various basins supplying water to WMWD are adjudicated and therefore subject to a maximum allowed pumping allocation for groundwater extraction.

The Riverside County Water Quality Management Plan (WQMP) for Urban Runoff addresses post-construction urban runoff from new development and redevelopment projects within the Santa Margarita River Region. The WQMP provides guidelines for the management of urban runoff quantity and quality and the protection of receiving waters through identification and implementation of source control and structural BMPs on a regional and subregional level.

Integrated Regional Water Management Plan (IRWMP). The Upper Santa Margarita IRWMP is a planning and management tool to facilitate efficient use of water resources and to develop effective water conservation measures using a regional- and watershed-based approach. The intent of the IRWMP is to pave the way for greater watershed-wide coordination and management of water resources within the Santa Margarita Watershed as a whole, as well as adjoining watershed and regional planning and funding efforts.

CITY OF MURRIETA

Storm Water Management Plan (SWMP). The City SWMP describes urban runoff management programs and activities to be implemented to ensure compliance with requirements of the municipal separate storm sewer system (MS4) Permit. The SWMP provides details of the programs described in the Riverside County Drainage Area Management Plan (DAMP), which identifies the overall urban runoff management strategies being implemented, or planned to be implemented, by the Permittees in the Santa Ana and Santa Margarita Regions of Riverside County. The Permit regulates the discharge of all wet and dry weather urban storm water runoff and requires the City to implement BMPs to reduce pollutants in storm water.

Municipal Code Section 8.36.230B, NPDES Permit for Industrial, Construction, and Dewatering Activities. This section of the City Municipal Code states that “Any person associated with industrial, construction, dewatering or other activities and discharges subject to any NPDES permit issued by the U.S. EPA, the SWRCB, or the San Diego RWQCB, shall comply with all requirements of such permits.

4.10.2 Thresholds

CEQA Guidelines Appendix G establishes hydrology and water quality thresholds of significance as projects that would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater supplies.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i. result in a substantial erosion or siltation on- or off-site;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

4.10.3 Impact Discussion

- a. **Less Than Significant with Mitigation Incorporated.** Proposed Project impacts related to water quality would occur over three different periods:
- During the earthwork and construction phase, where the potential for erosion, siltation, and sedimentation would be the greatest;

- Following construction, before the establishment of ground cover, when the erosion potential may remain relatively high; and
- After project completion, when impacts related to sedimentation would decrease markedly but those associated with urban runoff would increase.

Existing Conditions

The proposed Project would disturb approximately 60 acres; therefore, the project would be subject to the Construction General Permit. To obtain coverage under the Construction General Permit, the applicant is required to file with the State Water Board the Permit Registration Documents (PRDs), which include a Notice of Intent (NOI) and other compliance-related documents. The Construction General Permit requires development and implementation of a Storm Water Quality Pollution Prevention Plan (SWPPP), using the Riverside County Santa Margarita River Watershed Region Design Handbook for LID and BMPs for water quality. The SWPPP requirement is included as mitigation measure WR-1, and would include a monitoring plan, and erosion-control and sediment-control BMPs that would meet or exceed measures required by the Construction General Permit to control potential construction-related pollutants. Erosion-control BMPs prevent erosion, whereas sediment controls trap sediment once it has been mobilized. The types of required BMPs are relative to the amount of soil disturbed, the types of pollutants used or stored at the project site, and proximity to water bodies.

All project activities are required to conform to the Construction General Permit requirements and implement measures, including adherence to a stormwater pollution prevention plan, to ensure that all pollutants would be either eliminated or reduced to the maximum extent practicable, and would not cause or contribute to an exceedance of water quality objectives as described in the San Diego Regional Water Quality Control Board Basin Plan.

Short-term impacts related to water quality would occur during the earthwork and construction phases when the potential for erosion, siltation, and sedimentation would be potentially significant. Additional potential impacts would occur prior to the establishment of ground cover on denuded and newly created slopes. Project construction activities would involve pollutants such as nutrients, heavy metals, pesticides and herbicides, and chemicals related to construction and cleaning, waste materials, including wash water, paints, wood, paper, concrete, food container, sanitary wastes, fuel, and lubricants. Potential impacts to storm water quality would occur from construction, and associated earthmoving, and increased pollutant loading.

Construction and demolition activities would be subject to the provisions of the Construction Stormwater General Permit and Murrieta Municipal Code Chapter 8.36 which regulates stormwater, runoff management, and discharge controls, requiring that new development control discharges and pollutants in runoff pursuant to the requirements of the NPDES permit. These requirements would be satisfied through a Stormwater Pollution Prevention Plan required as Mitigation Measure WR-1.

Preliminary analysis indicates that groundwater is unlikely to be encountered during construction activities; however, seepage or nuisance water may be encountered in the near vicinity of portions of the pipeline. While a dewatering plan is not expected to be necessary for excavation and construction activities, sump pumps may be required if seepage or nuisance water is encountered in the excavations. Historic groundwater levels in the vicinity of the project alignment indicate groundwater was higher in the past and may be higher again in the future. Fluctuations in groundwater levels (including localized zones of perched water) and changes in soil moisture content should be anticipated during and following the rainy season. Irrigation and future development on surrounding properties can also cause a fluctuation of local groundwater levels.

Adherence to NPDES and Murrieta Municipal Code requirements, which include implementation of BMPs, the project's construction-related activities would not violate any water quality standards or otherwise substantially degrade surface or groundwater quality. Adherence to MM WR-1 would ensure that impacts are reduced to less than significant levels. Residual impacts would be less than significant.

Operations

The proposed Project would collect and convey runoff from landscape area and surface drainage areas to proposed treatment devices. Due to the increase of impervious surfaces, runoff from the project site would increase. However, adherence to Mitigation Measure WR-1 would reduce the potential for off-site impacts from increased flows to less than significant levels. No additional mitigation is required.

b, e. **Less Than Significant Impact.** The proposed Project site is located within the Murrieta-Temecula Basin. The Basin, which is located within the adjudicated Santa Margarita River Watershed, has a SGMA ranking of Very-low Priority, and therefore not subject to the Sustainable Groundwater Management Plan requirement. As indicated in a. above, the proposed Project would have minimal water requirements consisting of short-term construction activities (e.g., dust control, construction equipment and vehicle washing, and cement/concrete mixing) and long-term irrigation of landscaping. The amount of water used during construction would not substantially deplete area supplies and would not require new sources of water or the construction of new or altered water supply facilities. The proposed Project would not substantially deplete groundwater

supplies or interfere substantially with groundwater recharge in a manner that would impede sustainable groundwater management of the Basin. Impacts would be less than significant; no mitigation is required. Residual impacts would be less than significant.

- c. i, ii, iv. **Less Than Significant with Mitigation Incorporated.** Existing drainage patterns onsite include eight unnamed ephemeral drainages (that flow only during or directly after rain events) and five swales (with limited sign of flow). The proposed Project would mimic the site's existing drainage patterns through storm drain design, and would minimize peak flows to levels equal to or less than predevelopment flow rates for the 100-year storm event. Adherence to MM WR-1 would ensure that the proposed Project impacts would be reduced to less than significant levels. Residual impacts would be less than significant.
- c. iii. **Less Than Significant with Mitigation Incorporated.** The City is substantially developed and maintains an existing storm water drainage system (See Figure 21 below). The proposed Project would not substantially alter existing drainage patterns onsite, nor would it substantially increase post-project runoff due to the addition of impervious surfaces. Preliminary analysis indicated that project design features and post-development conditions would not substantially affect downstream drainage systems due to increases in impervious surfaces and runoff. runoff from the project site would be treated on site prior to entering existing off-site storm drain facilities. Therefore, the project would be consistent with the capacity of the City's existing storm drain system and surface water quality requirements. During construction, the construction plans would be reviewed along with supporting hydrology reports and calculations. The project would be required to comply with NPDES requirements, as well as Murrieta Municipal Code Chapter 15.52 to ensure that any potential impacts associated with runoff and water quality during grading and project construction would be addressed. Adherence to mitigation measure WR-1 would ensure that impacts would be reduced to less than significant levels. Residual impacts would be less than significant.

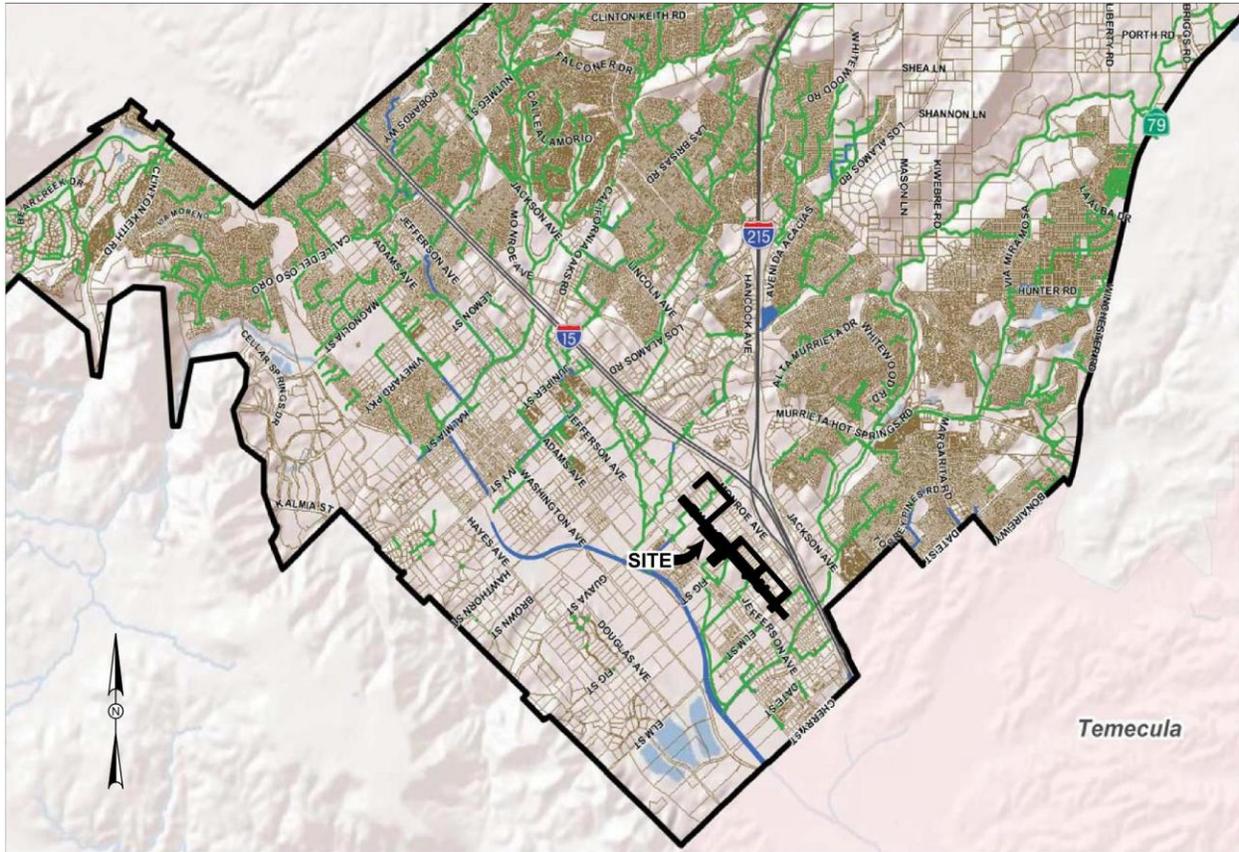


Figure 21: City of Murrieta Storm Drain System.

- d. **Less Than Significant Impact.** The proposed Project is not located within a 100-year hazard flood zone area. As previously noted, the project site is not located within a 100-year hazard flood zone area. Tsunamis are sea waves generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. The proposed Project site is located approximately 25 miles inland from the Pacific Ocean and is separated by the Santa Ana Mountain ranges. Therefore, the project site is not at risk from tsunamis. Additionally, the project site is not near any large bodies of water; therefore, the site is not at risk from a seiche. The potential to expose people or structures to a significant risk of flood hazard due to dam inundation, tsunami, or seiche would be minimal. Impacts would be less than significant, and no mitigation is required. Residual impacts would be less than significant.

- e. **Less Than Significant Impact.** As discussed under threshold b, the project would be required to comply with water quality standards and provisions. There would be sufficient water supply to serve the proposed Project. Project implementation would not impact WMWD groundwater

supply allowances from adjudicated basins. Therefore, project implementation would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project would impede the basins' sustainable groundwater management. Impacts would be less than significant, and no mitigation is required. Residual impacts would be less than significant.

4.10.4 Mitigation and Residual Impacts

WR-1 Stormwater Pollution Prevention. The project is subject to the Construction Stormwater General Permit Order 2022-0057-DWQ. As required by the conditions of the General Permit, a Storm Water Quality Pollution Prevention Plan (SWPPP) shall be prepared which includes provisions for the implementation of best management practices (BMPs) and a monitoring program. The following BMPs shall be incorporated into the SWPPP in order to minimize potential adverse water quality impacts:

- All ground disturbances shall be limited to the dry season or periods when rainfall is not predicted, in order to minimize erosion and sediment transport to surface waters.
- Disturbed areas shall be stabilized or re-vegetated prior to the start of the rainy season.
- Impacts to existing vegetation shall be minimized. Work areas shall be flagged to identify limits of construction activity. Vegetation shall not be removed or intentionally damaged beyond these limits.
- Construction materials and stockpiles shall be placed in designated areas which prevent them from entering drainage channels or storm drains due to spillage or erosion.
- Trash, waste and debris generated during construction shall be stored in designated waste collection areas, and where appropriate, in containers. All trash; waste and debris onsite shall be subject to regular monitoring and removed off-site to approved disposal locations as necessary.
- All fueling and maintenance of equipment and vehicles shall occur in designated area(s) isolated from drainages such that spillage is prevented from entering surface waters. Designated area(s) shall contain drain pans, drop cloths, and absorbent materials to contain, and clean up spills.
- Any accidental spill of hydrocarbons or coolant on the construction site shall be cleaned immediately. Absorbent materials shall be maintained onsite for this purpose. The

Regional Board shall be notified immediately in the event of an accidental spill to ensure proper clean up and disposal of waste.

Plan Requirements/Timing: These measures shall be included in the project specifications and SWPPP.

Monitoring: The City project engineer and designated construction inspector shall ensure full implementation and compliance with these measures.

Adherence to the mitigation measures identified above would ensure that water-quality impacts are reduced to less than significant levels. Residual impacts would be less than significant.

4.11 LAND USE / PLANNING

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

4.11.1 Setting

Physical. The entire area surrounding the proposed Project site is located within the Murrieta City Limits, in the South Murrieta Business Corridor. The proposed Project site consists primarily of vacant land, with single family dwellings and accessory structures located primarily along the northeast side of Madison Avenue. An exception is the area located immediately southeast of Guava Street, which is fully developed with a regional learning center in the southwest corner of the Madison Avenue/Guava Street intersection and an industrial materials distribution facility immediately to the southwest, and a mix of uses in the southeast corner (wholesale building supplies, self-storage facility, church), with a US Customs and Border Protection facility immediately to the southeast. The segment of Madison Avenue to the north of Guava Street has been developed for commercial use and has been identified as an important commercial area in the city.

REGULATORY
RIVERSIDE GENERAL PLAN

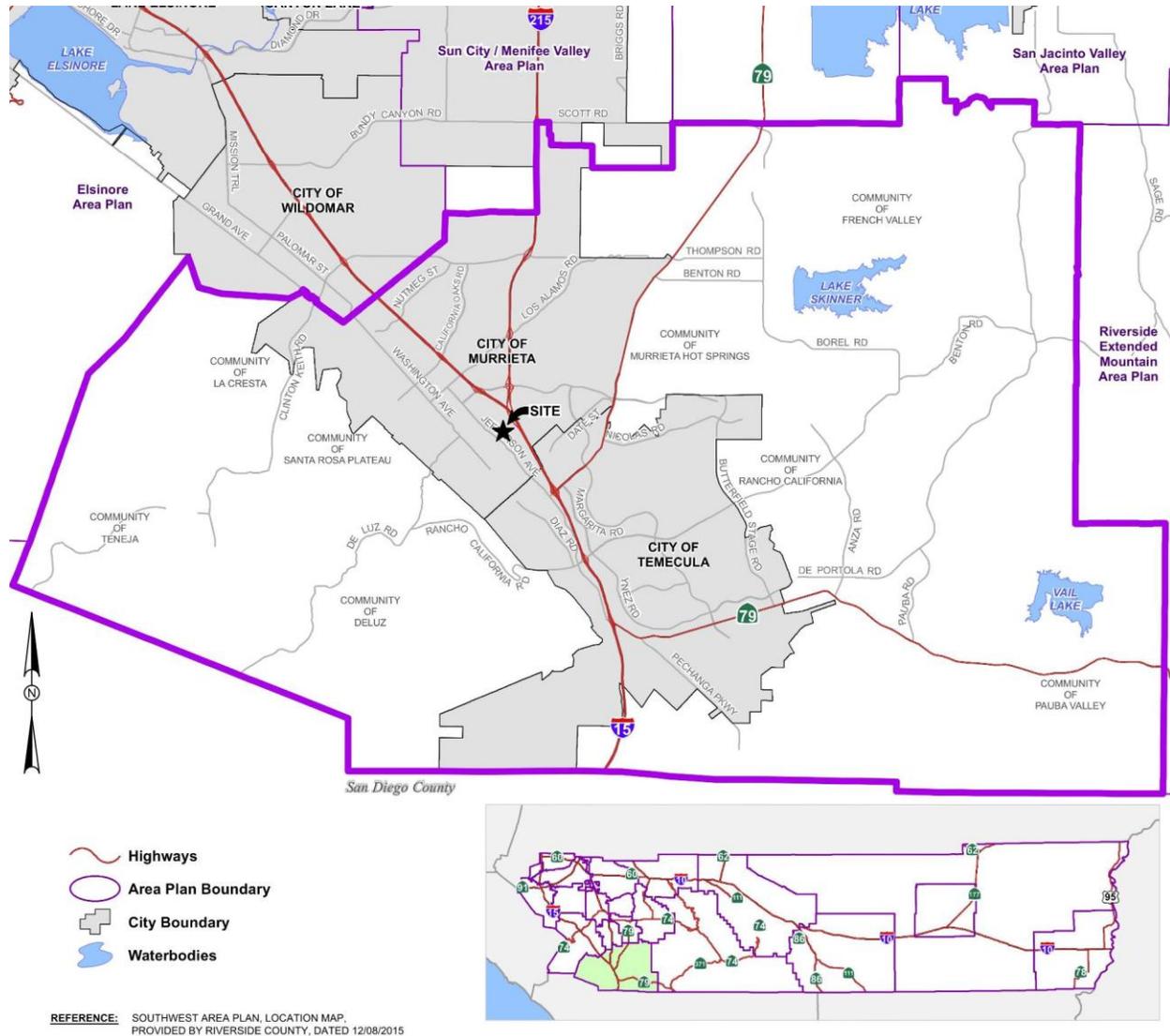


Figure 22: Riverside General Plan

Murrieta General Plan. The Murrieta General Plan guides both the physical development of Murrieta and the provision of public infrastructure and services. It places particular emphasis on economic development and is rooted in ten community priorities that were developed through an extensive community involvement process.

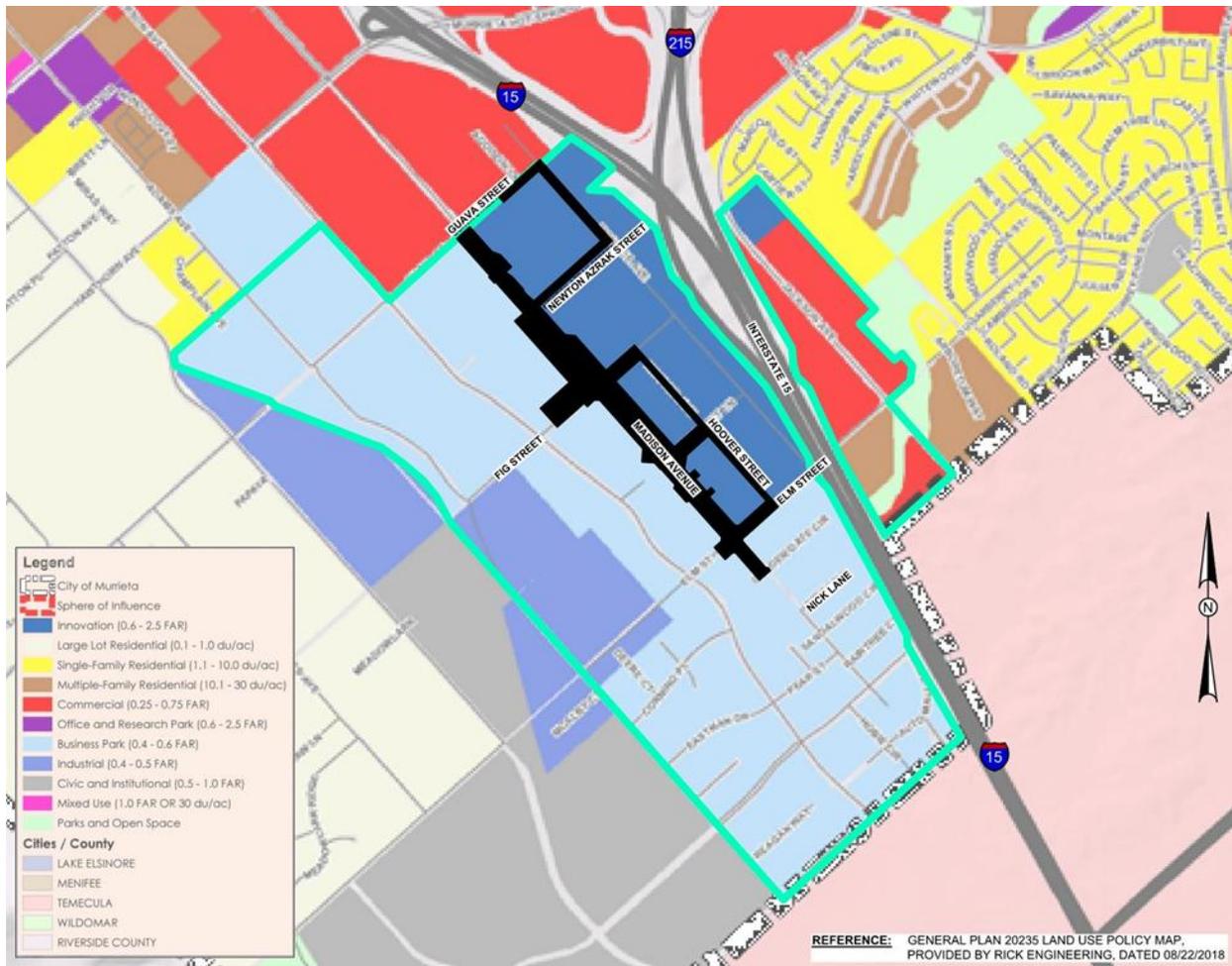


Figure 23: General Plan Land Use Designations

The proposed Project alignment is surrounded by the following Land Use designations (*City of Murrieta General Plan 2035 Land Use Policy Map – Final (Adopted July 7, 2020)*):

- Innovation** (0.6 to 2.5 floor/area ratio (FAR)). The Innovation designation provides for a wider variety and intensity of non-residential uses allowed elsewhere in the City with the goal of providing a cutting edge and campus-like mixed-use business setting. The Innovation designation provides for employment intensive uses such as business and medical offices, corporate headquarters, medical services, research and development, education, technological advancement, makers labs (such as people using digital tools to design new products), craftsman products (such as furniture and window design/construction), and hotels. The designation also provides for a limited amount of commercial uses for the sale of products made in facilities on-site and restaurants that support the employment and primary uses.

This designation is in the entire project area between Madison Avenue and Highway 15 to the northeast).

- **Business Park** (0.4 to 0.6 FAR). The Business Park designation provides employment uses, including office, research and development, educational facilities, and light manufacturing. Development should create a campus-like business or industrial park setting. Retail and service uses are typically limited to areas along major streets.

This designation is located in the entire project area directly to the southwest of Madison Avenue).

- **Commercial** (0.25 to 0.75 FAR). The Commercial designation provides for a broad mix of commercial retail, service, and office uses that serve the local and regional consumer. Typical uses include retail stores, personal services, restaurants, motor fuels, business offices, and lodging intended to meet the needs of city residents, travelers, and the daily employment population.

This designation is in the entire project area to the northwest of Guava Street.

The proposed Project alignment is surrounded by the following Zone designations (*City of Murrieta Zoning Map* (Adopted July 7, 2020 / Effective August 7, 2020):

- **Innovation** (INN). The Innovation Zoning District, contained in Municipal Code Chapter 16.13, is applied to areas primarily for business and medical offices, corporate headquarters, medical services, business campuses with associated research and development facilities, education, technological advancement, makers labs such as people using digital tools to design new products, and craftsman products such as furniture and window design/construction. A limited number of commercial uses are allowed within the Innovation Zoning District. Examples of allowable commercial uses include businesses that sell products made in facilities on-site, restaurants that support employment and primary uses, and hotels. Commercial businesses are intended as support services for the employees and customers of the office, business, and medical uses with their associated research and development operations. The Innovation Zoning District provides for a limited amount of housing as a supporting use to a facility such as a hospital, college or university, research and development campus that would directly benefit from having employees and students living on-site. The Innovation Zoning District is consistent with the Innovation land use designation of the General Plan.

Development standards in the Innovation Zoning District state that new land uses, structures, and alterations to existing uses or structures shall be designed, constructed, and/or established in

compliance with specific building setback, height, onsite landscaping requirements as well as applicable development standards (e.g. landscaping, parking, and loading, etc.) of the City's Article III Site Planning and General Development Standards.

Detailed Design Standards to ensure high quality development are provided for:

1. Site Planning (Site Character; Land Use Buffering; Building Placement; Trash/Loading/Storage Areas; Utility and Mechanical Equipment).
2. Parking and Circulation (General requirements; Project Entry; Site Access; Pedestrian Access; Bus Turnouts).
3. Architectural Design (Architectural Style; Design Consistency; Form and Mass; Roofs; Building Materials; Colors; Additions to Existing Structures).
4. Employee Workforce and Student Units.

This designation, which corresponds precisely with the Innovation Land Use designation, is in the entire project area between Madison Avenue and Highway 15 to the northeast).

- **Business Park (BP).** The Business Park zone district, contained in Municipal Code Chapter 16.12, is applied to appropriate areas for assembly, fabrication, light manufacturing, materials processing, offices and research and product development, provided the uses are conducted within an enclosed, controlled setting. Limited retail activities, to serve the primary business park tenants, is also allowed. The BP zoning district is consistent with the business park land use designation of the General Plan.

Development standards in this district require that new land uses and structures, and alterations to existing uses or structures are designed, constructed and/or established in compliance with specific Business Park development standards as well as the City's Article III Site Planning and General Development standards (e.g., landscaping, parking and loading, etc.).

Detailed Design Standards to ensure high quality development are provided for:

1. Site Planning (Site Design; Parking, Loading, and Circulation; Screening; Screen Walls / Fencing; Landscaping).
2. Architectural Design Standards (General; Roofs; Materials; Metal Buildings; Color).

This designation, which corresponds precisely with the Business Park Land Use designation, is located in the entire project area directly to the southwest of Madison Avenue).

- **Community Commercial (CC).** The CC zoning district, contained in Municipal Code Chapter 16.13.10, is applied to areas appropriate to serve the daily shopping needs of the community, including destination centers, supermarkets, and smaller, single-lot, commercial activities. Financial, office and restaurant activities are also allowed. Appropriate buffering between adjacent residential designations is required. Community centers are generally ten (10) to thirty (30) acres in size. The CC zoning district is consistent with the Commercial land use designation of the general plan.

Development standards in this district require that new land uses and structures, and alterations to existing uses or structures are designed, constructed and/or established in compliance with specific Commercial development standards as well as the City's Article III Site Planning and General Development standards (e.g., landscaping, parking and loading, etc.).

Detailed Design Standards to ensure high quality development are provided for:

1. Site Planning (Site Character; Land Use Buffering; Building Placement; Trash/Loading/Storage Areas; Utility and Mechanical Equipment).
2. Parking and Circulation (General; Project Entry; Site Access; Pedestrian Access; Bus Turnouts).
3. Architectural Design (Architectural Style; Design Consistency; Form and Mass; Roofs; Building Materials; Colors; Additions to Existing Structures).

This designation, which corresponds precisely with the Commercial Land Use designation, is in the entire project area to the northwest of Guava Street.

The proposed Project is located within the South Murrieta Business Corridor, one of the seven "Focus Areas" that were targeted for land use change as part of the City of Murrieta's General Plan 2035 update process. The South Murrieta Business Corridor is located west of the I-15 Freeway, extending to Adams Avenue to the west and south of Murrieta Hots Springs Road to the southern City boundary. As part of the update process, the South Murrieta Business Corridor was expanded to account for changes in the 2035 Land Use Policy Plan. See Figure 6.

The General Plan update process was guided by ten community priorities, including:

- *Transportation. Improve roadway networks to reduce traffic and provide a citywide system of bicycle lanes and recreational trails that improve accessibility without a car.*
- *Rural Areas: Preserve elements of Murrieta’s rural heritage. Community members value the “small town” feel around Murrieta, although they want the preservation of rural areas to be balanced with urban growth. Participants also expressed a need for additional infrastructure in rural areas, such as roads, water, and sewer.*

A key concept of the General Plan is to pursue an equitable distribution of residential commercial, and public uses to provide convenient accessibility by all Murrieta residents. To that end, the City seeks to balance land uses (to meet the needs of a diverse community), and encourage private sector investment (in the creation of higher paying jobs, income, and wealth through economic diversification) by directing public investments in infrastructure and promoting the development of shovel-ready sites (Land Use Element, Section 3.4, pp. 3-20, 21).

4.11.2 Thresholds

With the implementation of the Global Warming Solutions Act of 2008 (AB 32) and SB 375, Murrieta is mandated by the State of California to address the linkages between land use, transportation and climate change. On a regional level, SB 375 will be implemented by the Southern California Association of Governments (SCAG) through the Sustainable Communities Strategy (SCS). On a local level, the City must examine the balance between land uses to meet the needs of a diverse community and examine opportunities to reduce vehicle miles traveled (VMT) and to increase access alternative transportation. The Land Use Element provides opportunities to effectively designate land for retail and services that can be utilized by nearby residential uses. Additionally, employment-generating land-uses provide opportunities for residents of Murrieta to work within the community where they live. Local access to jobs and services will also enhance the City’s ability to effectively reduce vehicle miles traveled

Applicable General Plan 2035 Goals and Policies

The proposed Project would be consistent with the applicable Goals and Policies of the Murrieta General Plan 2035 upon demonstrated adherence to required Mitigation Measures, and the following Goals and Policies:

LAND USE ELEMENT

GOAL LU-1 A complementary balance of land uses throughout the community that meets the needs of existing residents and businesses as well as anticipated growth and achieves the community's vision.

Policy LU-1.6 Promote future patterns of development and land use that reduce infrastructure construction costs and make better use of existing and planned public facilities.

Policy LU-1.7 Ensure necessary capital improvements are in place prior to new development or completed concurrently.

Policy LU-6.11 Revitalize private and public lands in need of redevelopment or those that are underdeveloped due to lack of public facilities and revitalization.

Policy LU-11.10 Ensure that the design of buildings in the South Murrieta Business Corridor help to create a distinctive and cohesive look to reinforce this Focused Area as a major gateway into the City.

Policy LU-12.1 Provide for the highest level of retail and job-creating uses in areas adjacent to the I-15 and I-215 freeways. This includes the North Murrieta Business Corridor, Golden Triangle North (Central Murrieta), and South Murrieta Business Corridor Focus Areas.

Policy LU-18.4 Continue coordination with the Riverside County Transportation Commission (RCTC) to ensure regional and sub-regional transportation efforts reflect Murrieta's unique attributes.

Policy LU-18.7 Seek out the formation of multi-jurisdictional partnerships with local, State, and Federal agencies and/or private interests. The City shall cooperate with the Riverside County Flood Control and Water Conservation District (RCFCWCD), Army Corps of Engineers, and the Riverside County Board of Supervisors in the development of waterways, tributaries, detention basins, and watershed management.

Policy LU-19.1 Cooperate with other jurisdictions in developing compatible land uses on lands adjacent to, or near, the City's corporate boundaries to minimize significant impacts and potentially benefit residents, businesses, and/or infrastructure systems in Murrieta.

CIRCULATION ELEMENT

GOAL CIR-1 A circulation system that serves the internal circulation needs of the City, while also addressing the inter-community or through travel needs.

Policy CIR-1.1 Ensure the transportation system can adequately serve the concentrations of population and employment activities identified by the Land Use Element.

Policy CIR-1.2 Maintain a Level of Service “D” or better at all intersections during peak hours. Maintain a Level of Service “E” or better at freeway interchanges during peak hours.

Policy CIR-1.3 Maintain an average daily traffic (ADT) Level of Service “C” or better for all roadway segments. As an exception, LOS “D” may be allowed in the North Murrieta Business Corridor, Clinton Keith/Mitchell, Golden Triangle North (Central Murrieta), South Murrieta Business Corridor, or the Multiple Use 3 Focus Areas, or other employment centers. LOS “D” may be allowed only at intersections of any combination of Secondary roadways, Major roadways, Urban Arterial roadways, Expressways, conventional state highways, or freeway ramps.

Policy CIR-1.11 Support the implementation of complete streets through a multi-modal transportation network that balances the needs of pedestrians, bicyclists, transit riders, mobility-challenged persons, older people, children, and vehicles while providing sufficient mobility and abundant access options for existing and future users of the street system.

Policy CIR-1.12 Maintain an effective City truck route system to ensure that movement of truck traffic is accommodated by and confined to designated streets.

GOAL CIR-2 A comprehensive circulation system that promotes safety.

Policy CIR-2.3 Provide a circulation network that accommodates the safe and efficient movement of all forms of non-motorized travel.

Policy CIR-2.4 Ensure roadway signage of adequate size to clearly convey street names or traffic control measures is installed and maintained.

Policy CIR-2.5 Include paved shoulders on all roads in non-urban areas that can be used by cyclists and pedestrians.

Policy CIR-2.9 Ensure new roadways and intersections provide adequate sight distances for safe vehicular movement.

Policy CIR-2.14 Ensure that efficient and safe access for emergency vehicles is provided to all development.

GOAL CIR-3 Circulation systems that preserve the quality of residential neighborhoods.

Policy CIR-3.6 Use cool pavement technology and reduce amount of paved surfaces when designing new roads, sidewalks, parking areas, and bikeways.

GOAL CIR-6 Alternative travel modes and facilities are available to serve residents and employers/employees and reduce vehicle miles traveled.

Policy CIR-6.6 Identify opportunities to implement the Western Riverside County Non-Motorized Transportation Plan within key activity centers of the City through the development of non-motorized transportation corridors and facilities (i.e., neighborhood electric vehicle routes, bikeways, pedestrian paths, sidewalks/paths).

GOAL CIR-7 Residential areas and activity centers are accessible to all pedestrians, including persons with disabilities or having special accessibility needs.

Policy CIR-7.4 Consider the development and implementation of Pedestrian Friendly Street Standards.

Policy CIR-7.5 Provide pedestrian amenities such as benches, trees, landscaping, and shade trees to encourage people to walk to destinations.

GOAL CIR-8 Development, expansion, and maintenance of a network of bicycle, pedestrian, and multi-use trails that allows residents to travel between parks, schools, neighborhoods, and other major destinations without driving.

Policy CIR-8.2 Promote bicycle and pedestrian trails along major home to work and other travel routes.

Policy CIR-8.3 Consider roadway design guidelines for new development and for capital improvement plans that enhance bicycle and pedestrian connectivity and safety.

INFRASTRUCTURE ELEMENT

GOAL INF-1 New development and redevelopment is coordinated with the provision of adequate infrastructure for water, sewer, storm water, and energy

Policy INF-1.4 Ensure that new development and redevelopment provides infrastructure for water, sewer, and storm water that adequately serves the proposed uses, and that has been coordinated with affected infrastructure providers.

Policy INF-1.9 Encourage the water districts to proactively manage their assets through the maintenance, improvement, and replacement of aging water and wastewater systems to ensure the provision of these services to all areas of the community
Health Community Element.

Policy INF-1.18 Minimize the adverse effects of urbanization upon drainage and flood control facilities.

ECONOMIC DEVELOPMENT ELEMENT

GOAL ED-3 A sound, stable, and diversified economic base.

Policy ED-3.3 Create incentives to attract new businesses and industries that provide employment opportunities that match the education and occupational skill levels of Murrieta residents.

Policy ED-4.5 Create a unified urban design, marketing, and imaging strategy to strengthen the Madison Avenue Commercial corridor.

CONSERVATION ELEMENT

GOAL CSV-3 A community that participates in a multi-jurisdictional approach to protecting, maintaining, and improving water quality and the overall health of the watershed.

Policy CSV-3.2 Promote storm water management techniques that minimize surface water runoff in public and private developments.

Policy CSV-3.3 Utilize low-impact development (LID) techniques to manage storm water through conservation, on-site filtration, and water recycling, and continue to ensure compliance with the NPDES permit.

GOAL CSV-7 Paleontological resources are conserved as a record of the region's natural history.

Policy CSV-7.1 Continue development review procedures that protect paleontological resources.

GOAL CSV-8 Conservation of biological resources through habitat preservation and restoration, in coordination with other regional efforts and in compliance with state and federal mandates.

Policy CSV-8.1 Facilitate the conservation of habitat areas and wildlife corridors under the Western Riverside Multiple Species Habitat Conservation Plan

Policy CSV-8.2 Address applicable policies and regulations of regional, State, and Federal agencies to achieve common goals for preservation of habitat and the protection of threatened and endangered species.

Policy CSV-8.4 Review development projects to determine their impact on biological resources, and compliance with state and federal regulations

GOAL CSV-9 A community that promotes the growth of an urban forest and water-efficient landscaping, recognizing that plants provide natural services such as habitat, storm water management, soil retention, air filtration, and cooling, and also have aesthetic and economic value

Policy CSV-9.3 Promote the use of street trees as a buffer between pedestrians and motorized traffic.

Policy CSV-9.4 Encourage the planting of street trees in linear planting beds rather than tree wells in order to support long-living healthy trees

Policy CSV-9.9 Promote the use of native plant species in public landscaping of parks, schools, medians and planter strips, as well as in private development throughout the City.

Policy CSV-9.10 Promote and expand the use of drought-tolerant green infrastructure, including street trees, and landscaped areas as part of cooling strategies in public and private spaces

GOAL CSV-11 Murrieta protects, enhances, and celebrates archaeological, cultural, and historic resources as a way to foster community identity.

Policy CSV-11.1 Promote the protection and preservation of archaeological, cultural, historical, and architecturally significant sites, structures, districts, Native American resources, and natural features throughout the community, consistent with the 8-24 Cultural Resource Preservation Ordinance, SB 18 and AB 52. Preferred methods of protection include avoidance of impacts, placing resources in designated open space and allocation of local resources and/or tax credits as feasible

Policy CSV-11.5 Comply with state and federal law regarding the identification and protection of archaeological and Native American resources and consult early with the appropriate tribal governments.

Policy CSV-11.9 Exercise sensitivity and respect for all human remains, including cremations, and comply with all applicable state and federal laws regulating human remains.

GOAL CSV-13 Solid waste is diverted from landfills through waste reduction, re-use and recycling

Policy CSV-13.1 Comply with the State’s landfill diversion requirements

AIR QUALITY ELEMENT

GOAL AQ-1 Improved air quality through participation in regional and local efforts.

Policy AQ-1.3 Cooperate with local, regional, State, and Federal agencies to achieve better transportation facility planning and development.

Policy AQ-1.4 Cooperate with the State and Southern California Association of Governments (SCAG) in the implementation of SB 375 – Regional Transportation Planning, Housing, CEQA and GHG Reduction Strategies.

GOAL AQ-3 Reduced emissions during construction activities.

Policy AQ-3.1 Ensure that construction activities follow current South Coast Air Quality Management District (SCAQMD) rules, regulations, and thresholds

Policy AQ-3.2 Ensure all applicable best management practices are used in accordance with the South Coast Air Quality Management District (SCAQMD) to reduce emitting criteria pollutants during construction.

Policy AQ-3.3 Require all construction equipment for public and private projects comply with California Air Resources Board’s (CARB) vehicle standards. For projects that may exceed daily construction emissions established by the South Coast Air Quality Management District (SCAQMD), Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD.

Policy AQ-3.4 Require project proponents to prepare and implement a Construction Management Plan, which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project by project basis and should be specific to the pollutant for which the daily threshold is exceeded. Such control measures may include but not be limited to:

- Minimizing simultaneous operation of multiple construction equipment units.
- Implementation of South Coast Air Quality Management District (SCAQMD) Rule 403, Fugitive Dust Control Measures.
- Watering the construction area to minimize fugitive dust.
- Require that off-road diesel-powered vehicles used for construction shall be new low emission vehicles, or use retrofit emission control devices, such as diesel oxidation catalysts and diesel particulate filters verified by California Air Resources Board (CARB).
- Minimizing idling time by construction vehicles

GOAL AQ-5 Air quality is improved through an efficient circulation system, reduced traffic congestion, and reduced vehicle miles traveled.

Policy AQ-5.5 Provide a preference to contractors using reduced emission equipment for City construction projects as well as for City contracts for services (e.g., garbage collection).

NOISE ELEMENT

GOAL N-3 Noise from mobile noise sources is minimized.

Policy N-3.1 Consider noise mitigation measures in the design of all future streets and highways and when improvements occur along existing freeway and highway segments.

Policy N-3.5 Consider the use of rubberized asphalt for new roadways or roadway rehabilitation projects.

GOAL N-4 Reduced noise levels from construction activities.

Policy N-4.1 Regulate construction activities to ensure construction noise complies with the City's Noise Ordinance.

Policy N-4.2 Limit the hours of construction activity in residential areas to reduce intrusive noise in early morning and evening hours and on Sundays and holidays.

Policy N-4.3 Employ construction noise reduction methods to the maximum extent feasible. These measures may include, but not limited to, shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction

equipment staging areas and occupied sensitive receptor areas, and use of electric air compressors and similar power tools, rather than diesel equipment

Policy N-4.4 Encourage the City to purchase and use municipal vehicles or noise-generating mechanical equipment that complies with noise standards specified in the City's Municipal Code, or other applicable codes.

Policy N-4.5 Allow exceedance of noise standards on a case-by-case basis for special circumstances including emergency situations, special events, and expedited development projects.

Policy N-4.6 Ensure acceptable noise levels are maintained near schools, hospitals, convalescent homes, churches, and other noise-sensitive areas

SAFETY ELEMENT

GOAL SAF-2 Damage from geologic and seismic hazards is minimized by identifying and addressing these hazards during the planning and engineering of built improvements.

Policy SAF-2.1 Prior to site development, projects located in areas where liquefaction, subsidence, landslide and fissuring are considered hazards shall be required to prepare geologic reports addressing site conditions, potential risk, and mitigation, to the satisfaction of the City Engineer.

SAF-2.2 Require that all new development comply with the Alquist-Priolo Earthquake Fault Zoning Act.

SAF-2.3 Seek to maintain emergency access in the event of an earthquake by engineering roadways to reduce damage to them.

GOAL SAF-3 Damage from flood and inundation hazards is minimized by improving flood control systems and providing adequate safety protections in areas of the City subject to inundation.

Policy SAF-3.1 Cooperate with the Riverside County Flood Control and Water Conservation District to evaluate the effectiveness of existing flood control systems and improve these systems as necessary to meet capacity demands.

Policy SAF-3.3 Identify natural drainage courses and designate drainage easements to allow for their preservation, or for the construction of drainage facilities if needed to protect the health, safety, and welfare of the community.

Policy SAF-3.4 Require new construction within the 100 year floodplain to meet National Flood Insurance Program standards.

4.11.3 Impact Discussion

The City of Murrieta General Plan guides both the physical development of Murrieta and the provision of public infrastructure and services. In order to be considered consistent with the General Plan, a project must not only be consistent with the Land Use Plan, but it must also further the goals of all elements of the General Plan and meet the intent of its goals and policies.

- a. **Less than Significant.** The proposed Project, which would: a) expand an existing roadway, and b) extend water and sewer lines to existing system connections, in a location anticipated for future development and in a manner entirely consistent with the approved General Plan. Existing development on both sides of the subject segment of Madison Avenue is a mix of low density residential, commercial, and institutional in a primarily undeveloped area. The proposed Project would not physically divide an established community. Impacts would be less than significant.
- b. **No Impact.** The proposed Project would contribute to the Economic Development goals for the City in Murrieta by increasing accessibility to the Madison Avenue Commercial Corridor.

Adherence to the Goals and Policies of General Plan 2035 identified above, and with the inclusion of mitigation measures identified in this document, the proposed Project would ensure consistency with the land use plans, policies and regulations of the City. In particular, the proposed Project would serve to further the Economic Goals of the City as expressed in the General Plan as demonstrated by its consistency with Circulation Goals and Policies.

The Circulation Element of the City General Plan 2035 (City 2011b) includes estimated traffic volumes under buildout (2035) land uses. These traffic volumes were then used by the City to determine whether the City's existing circulation system can accommodate the future traffic demands of buildout. Based on the conclusions of the analysis, the City has identified changes to the roadway network that are deemed necessary to accommodate future traffic demands. One of the necessary changes identified by the City is the expansion of Madison Avenue, as depicted on Exhibit 5-4 in the City General Plan 2035 (2011b). The project, which proposes to implement this improvement, is therefore consistent with the City General Plan 2035 (City 2011b). In

addition, because the project would occur primarily within the City right-of-way, it would not conflict with the City’s Land Use Plan.

The proposed Project would: 1) widen and extend an existing roadway consistent with the City’s General Plan Circulation Element; and 2) include water and sewer line connections consistent with the Western Water Capital Improvements Plan. These improvements would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact.

4.11.4 Mitigation and Residual Impact

No mitigation is required. Residual impacts would be less than significant.

4.12 MINERAL RESOURCES

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

4.12.1 Setting

According to the City’s *General Plan*, no classified or designated mineral resources are known to occur within the Project area.

4.12.2 Thresholds

Pursuant to Appendix G of the CEQA Guidelines, impacts to mineral resources may be considered significant if they would result in the following:

- the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

- the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

4.12.3 Impact Discussion

a, b. **No impact.** No classified or designated mineral resources are known to occur within the Project area. No impacts to mineral resources would occur as a result of the proposed Project.

The Surface Mining and Reclamation Act of 1975 required the State Geologist to initiate mineral land classification to help identify and protect mineral resources in areas within the state. In accordance with guidelines established by the State Mining and Geology Board, mineral deposits in western Riverside County have been classified into Mineral Resource Zones (MRZ). According to the City General Plan, the project area has been classified by the State Division of Mines and Geology as MRZ-3a. This area contains sedimentary deposits that have the potential to supply sand and gravel for concrete and crushed stone for aggregate. However, these areas are not considered to contain deposits of significant economic value. Given the limited area the project would disturb and the fact that the surrounding area is generally developed or zoned for future development, the project would not result in the loss of availability of a mineral resource valuable to the region or state.

4.12.4 Mitigation

No mitigation is required. Residual impacts would be less than significant.

4.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Generation of excessive groundborne vibration or groundborne noise levels?		✓		

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			✓	

The following analysis is based on the Acoustical Analysis Report – Madison Avenue Road Improvements Project (HELIX, May 2024), which presents an assessment of potential construction and operational noise impacts associated with the proposed Madison Avenue Road Improvements Project (included as Appendix 5).

4.13.1 Setting

Physical. The proposed Project site encompasses a roadway with multiple adjacent noise-sensitive land uses (NSLUs). NSLUs are land uses that may be subject to stress and/or interference from excessive noise, such as residential dwellings, schools, transient lodging (hotels), hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. NSLUs in the proposed Project area consist of single-family residences and institutional development, including a school and a church. The nearest NSLUs are residences 50 feet from Madison Avenue construction limits.

The dominant noise source in the project area is traffic on local roadways, including Interstates 15 and 215.

REGULATORY

Federal. Federal Transit Administration (FTA): The FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018) provides guidance for predicting and assessing noise and vibration impacts of proposed transit projects, including quantitative thresholds.

State. Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2013b) provides guidance, including quantitative thresholds, for addressing vibration issues associated with the construction, operation, and maintenance of transportation projects in California.

LOCAL

City of Murrieta

General Plan 2035 Noise Element (City of Murrieta 2011a) and Final EIR for the City of Murrieta General Plan 2035 (City of Murrieta 2011b).

Municipal Code, Noise Ordinance, Section 16.30.130 (City of Murrieta 1997).

4.13.2 Thresholds

Noise is generally defined as unwanted or objectionable sound. The Helix analysis presents all noise/sound level values in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses.

The magnitude of noise impacts depends on the type of construction activity, equipment used, duration of each construction phase, distance between the noise source and receiver, and any intervening structures. Construction activities generate elevated noise levels that may disturb nearby NSLUs.

Because construction equipment operates during various construction phases at multiple locations, the distance to impact noise contours for different land uses are calculated under the mobile (Non-scheduled, intermittent, short-term (less than 10 days) and stationary (Repetitively scheduled and relatively long-term (3 days or more) operation construction noise limits.

Table 8: City of Murrieta Noise Limitations

Period	Single-family Residential		Multi-family Residential		Commercial	
	Mobile Equipment ¹	Stationary Equipment ²	Mobile Equipment	Stationary Equipment	Mobile Equipment	Stationary Equipment
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75 dBA	60 dBA	80 dBA	65 dBA	85 dBA	70 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	50 dBA	64 dBA	55 dBA	70 dBA	60 dBA

Source: City of Murrieta Municipal Code Section 16.30.130

¹ Mobile equipment is defined as nonscheduled, intermittent, short-term operations.

² Stationary equipment is defined as repetitively scheduled and relatively long-term operation periods (three days or more).

The Community Noise Equivalent Level (CNEL) and Day Night sound level (LDN) are metrics used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations (California Department of Transportation [Caltrans] 2013a) are considered “vibration-sensitive.” The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. In addition, excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses or schools. Land uses in the project area that are subject to annoyance from vibration include the single-family residences along Madison Avenue.

The normally acceptable noise levels in Murrieta for multi-family residential land use are 65 CNEL for exterior noise, and 45 CNEL for interior noise. A significant noise impact would occur if the proposed Project would result in: 1) a substantial permanent increase in ambient noise levels in the project vicinity above existing levels without the project; 2) temporary construction noise that violates the limits established in the City Noise Ordinance; or 3) exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels.

A direct significant impact would occur if exterior and interior noise levels are exposed to a 3 CNEL increase on roadways where the baseline (Existing) noise level is less than 60 CNEL; a 2 dBA increase for roadways where the baseline noise level is between 60 and 64 CNEL; and a 1 dBA increase for roadways where the baseline noise level is 65 CNEL or above.

4.13.3 Impact Discussion

Proposed Project impacts were evaluated using:

- Ambient Noise Surveys. Two ambient noise surveys were conducted on January 31, and April 24, 2024.
- Computer Aided Noise Abatement (CadnaA version 2023) modelling. Assessment of existing baseline (pre-project) ambient noise conditions at nearby NSLUs was conducted using a 50-foot distance from Madison Avenue to approximate the existing ambient noise levels from vehicular traffic. With pre-project conditions, the ambient noise level was modeled at 62.1 CNEL for the residences east of Madison Avenue.

- Roadway Construction Noise Model (RCNM; USDOT 2008), which utilizes estimates of sound levels from standard construction equipment.

Table 9: Ambient Noise Level Measurements

Measurement 1	
Date:	January 31, 2024
Conditions:	Temperature: 70°F. Wind Speed: 8 mph. 67% humidity.
Time:	1:31 p.m. – 1:46 p.m.
Location:	Approximately 50 feet southwest of the intersection of Madison Avenue and Elm Street
Measured Noise Level:	54.4 dBA _{LEQ}
Notes:	Noise from traffic along Madison Avenue. Distant I-15 and I-215 freeway noise.
Measurement 2	
Date:	January 31, 2024
Conditions:	Temperature: 70°F. Wind Speed: 8 mph. 67% humidity.
Time:	2:04 p.m. – 2:19 p.m.
Location:	Approximately 250 feet southwest of the intersection of Madison Avenue and Fig Street
Measured Noise Level:	55.7 dBA _{LEQ}
Notes:	Noise from traffic along Madison Avenue. Distant I-15 and I-215 freeway noise.
Measurement 3	
Date:	April 24, 2024
Conditions:	Temperature: 68°F. Wind Speed: 8 mph. 57% humidity.
Time:	2:20 p.m. – 2:35 p.m.
Location:	Approximately 75 feet southwest of the intersection of Madison Avenue and Fig Street
Measured Noise Level:	54.8 dBA _{LEQ}
Notes:	Noise from traffic along Madison Avenue. Distant I-15 and I-215 freeway noise.

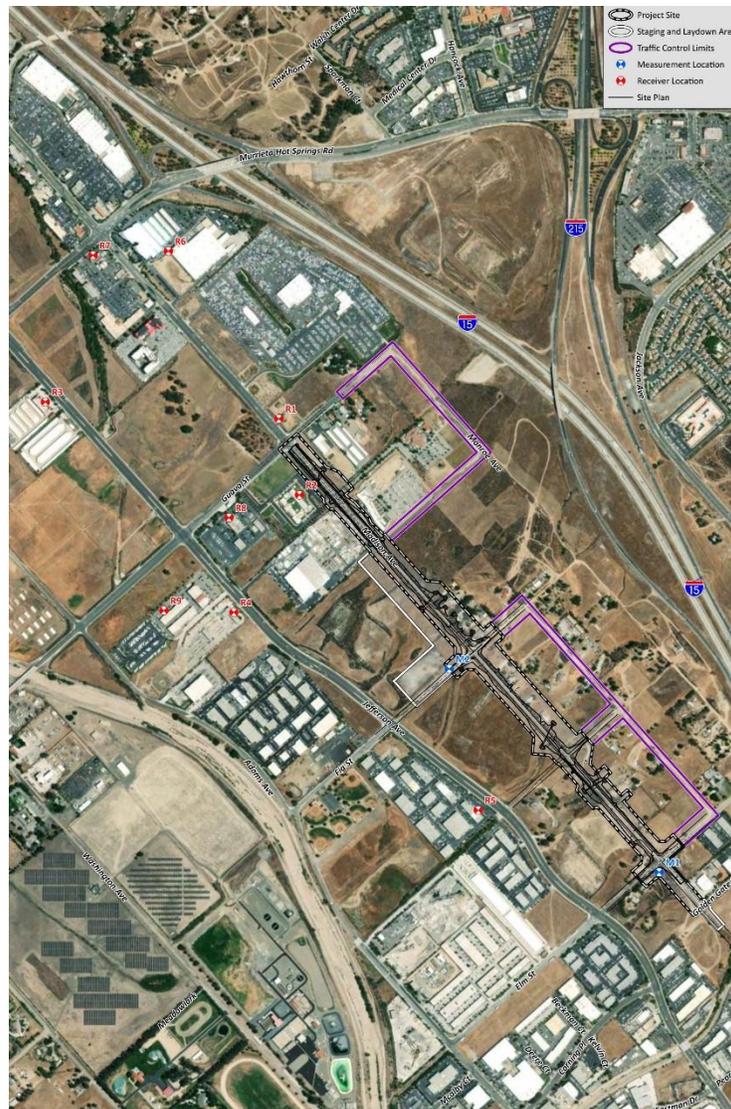


Figure 24: Sensitive Receiver and Noise Measurement Locations

- a. **Less than Significant with Mitigation Incorporated.** Construction equipment would be utilized throughout the site for all construction activities, including site preparation, grading, installation of sidewalk and bike lanes, drainage facilities, utilities, and paving. Noise generated by construction equipment such as tractors, loaders, backhoes, excavators, forklifts, generators, pumps, sweepers, pavers, rollers, graders, and other off-highway vehicles would impact nearby residences. On-site construction noise generated during the allowable daytime hours would exceed City standards for mobile and stationary equipment at single-family residential, multi-family residential, and commercial land uses. Impacts would be potentially significant.

Operation Vehicular Traffic Volumes. Traffic noise analysis is based on the RICK Engineering Traffic Impact Analysis (TIA) for the project, which identifies average daily traffic volumes for the surrounding street segments, under existing (2023) and opening year (2026) scenarios, with and without the project. Traffic for the nearby I-15 and I-215 freeways were obtained from the Caltrans Traffic Census Program (2022).

According to Caltrans data, I-15 in the project vicinity carries approximately 9.0 percent trucks, consisting of approximately 4.1 medium trucks and 4.9 percent heavy trucks, and I-215 in the project vicinity carries approximately 7.2 percent trucks, consisting of approximately 3.6 medium trucks and 3.6 percent heavy trucks.

Project-generated traffic would consist almost entirely of automobiles. The posted speed limits for the analyzed roads are 45 miles per hour (mph) for Murrieta Hot Springs Road, Guava Street, and Fig Street. 35 mph for Madison Avenue, 50 mph for Jefferson Avenue north of Murrieta Hot Springs Road, 45 mph south of Murrieta Hot Springs Road. A conservative breakdown of 97 percent automobiles, 2 percent medium trucks, and 1 percent heavy trucks was used for modeling existing and future noise conditions on local roads in the vicinity of the project for all segments in both the off-site and on-site scenarios. CadnaA software was used to calculate the noise contour distances for the off-site impacts.

Construction Traffic. Project construction traffic would be highest during site preparation and grading, generating approximately 270 ADT for import and export of material (i.e., 33 trips per hour during an 8-hour workday). Due to the existing high traffic volumes along Madison Avenue (8,508 trips north of Guava Street, 2,821 trips north of Fig Street, and 1,563 trips north of Elm Street), the addition of 33 truck trips per hour is not anticipated to noticeably increase noise levels, since the noise receivers on Madison Avenue are already exposed to higher traffic volumes from the I-15 and I-215 freeways. Therefore, the project's construction traffic would have a minor impact on noise and impacts would be less than significant.

Operational Off-site Transportation Noise. The nearest NSLUs for each roadway are single-family residences; noise levels would not exceed the allowable noise increment. Therefore, impacts from project-generated traffic would be less than significant.

Project construction noise would result in potentially significant noise levels above the City Noise Ordinance construction noise limits for mobile and stationary equipment at surrounding single family residences and commercial land uses. This impact would be reduced to less than significant

with implementation of mitigation measure NOI-1, which includes various measures to reduce construction noise. Project-generated traffic would result in less than significant noise impacts to off-site receptors. Vibration from construction would not exceed thresholds for structural damage but may result in temporary human annoyance.

Because impacts related to operational off-site transportation noise would be less than significant, no mitigation is required.

- b. **Less than Significant with Mitigation Incorporated.** Construction activities known to generate excessive ground-borne vibration, such as pile driving, would not be conducted by the project. A possible source of vibration during general project construction activities would be the use of a vibratory roller to achieve soil compaction as part of foundation construction and fill compaction. These activities would occur within 40 feet of the nearest off-site residences. A vibratory roller would create approximately 0.210 inch per second PPV at a distance of 25 feet (Caltrans 2013b). A 0.210 inch per second PPV vibration level would equal 0.125 inch per second PPV at a distance of 40 feet.¹ This would be higher than what is considered a “strongly perceptible” impact for humans of 0.1 inches per second PPV, but lower than the structural damage impact to older residential structures of 0.3 inch per second PPV. Impacts would be potentially significant. Adherence to Mitigation measure NOI-2, below, would require vibratory rollers to be used in static mode within 40 feet of residences. With the implementation of mitigation measure NOI-2, impacts associated with a vibratory roller (and other potential equipment) would be less than significant.
- c. **Less than Significant Impact.** French Valley Airport, the closest airport to the proposed Project site, is located approximately 3.5 miles to the northeast. The proposed Project is located outside of the 65 CNEL contour for the airport, which terminates approximately 3.3 miles to the north of the project site (Coffman Associates, Inc. 2009). Airport noise would not create substantial noise at the project site. Impacts would be less than significant.

4.13.4 Mitigation and Residual Impact

The following mitigation measures are required to reduce construction noise levels to acceptable levels within City limits.

NOI-1 Construction Noise Management Plan. A Construction Noise Management Plan shall be required to ensure that noise levels from project-related construction activities do not exceed the noise

limits specified in Section 16.30.130 of the City of Murrieta Municipal Code for mobile and stationary construction equipment, when measured at: 1) the boundary line of the property where the noise is located; or 2) any occupied property where noise is being received.

The Plan shall include the following measures to reduce construction noise:

- Construction equipment to be properly outfitted and maintained with manufacturer recommended noise-reduction devices.
- Diesel equipment to be operated with closed engine doors and equipped with factory recommended mufflers.
- Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) to be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment to be used instead of pneumatic or internal combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., more than 5 minutes) to be prohibited.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise-sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7 to 8 feet above ground, sound walls at least 10 feet in height above grade shall be installed as necessary, to block the line-of-sight between project construction activities and sensitive noise receivers. These barriers would mitigate noise levels to within acceptable levels. To effectively reduce noise levels, the sound barrier should be constructed of a material with an STC rating of 22 or 23 with no gaps or perforations and remain in place until the conclusion of demolition, grading, and construction activities.
- All residences within 100 feet of the project shall be notified in writing within one week of any noise-generating activity, including, but not limited to demolition, concrete sawing, asphalt removal, and/or heavy grading operations. The notification shall describe the activities

anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure.

- The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established before construction commencement to allow for the resolution of noise problems that cannot be immediately solved by the site supervisor.

Plan Requirements/Timing. The Construction Noise Management Plan shall be included on construction plans to ensure compliance with noise limits.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

NOI-2 Vibratory Roller Usage Limits. Vibratory rollers shall be used in static mode only (no vibrations) when operating within 40 feet of any occupied residence.

Plan Requirements/Timing. The vibratory roller model, size, and operating mode restrictions shall be specified on all grading and construction permits.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

4.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

4.14.1 Setting

The proposed Project Site is located in Census Tract 498 within the South Madison Avenue Business Corridor in the City. The area surrounding the project site is currently sparsely developed with a mix of commercial, residential and institutional uses.

4.14.2 Thresholds

The adopted City of Murrieta General Plan 2035 identifies significant changes within the South Madison Avenue Business Corridor Area associated with approximately 5.6 million square feet of non-residential development (i.e., 27 percent of the total estimated growth during the planning horizon).

4.14.3 Impact Discussion

- a. **Less than Significant Impact.** The proposed Project would widen Madison Avenue between Guava Street and approximately Sandalwood Circle, and install/upgrade water and sewer lines within the roadway corridor, and the proposed alignment is consistent with General Plan Circulation Element. At General Plan build-out, the vacant and underutilized properties located in this area would be replaced with a mix of Office and Research Park, Business Park, and Industrial Uses, based on property owner decisions. As the major employment center in the southern portion of the City, the ultimate displacement of existing residences in this area was anticipated in the adopted General Plan by providing for future housing opportunities in the designated residential areas. Impacts would be less than significant.

The proposed Project is part of a design, which at buildout would meet the roadway classification requirements of a four lane major roadway, as specified by City Standards and included in the City's General Plan Circulation Element. The expanded roadway would accommodate future traffic levels projected under buildout of the General Plan. Therefore, although the project involves the expansion of infrastructure, it would accommodate planned growth rather than induce growth. The project does not include land uses, such as homes or business, that would directly induce population growth. As such, the project would not induce direct or indirect population growth, and impacts would be less than significant.

- b. **No Impact.** The proposed Project would involve improvements to an existing roadway. The proposed Project alignment is consistent with General Plan Circulation Element and would not require the removal of any structures, nor the displacement of any residents. All existing

residential (as well as commercial, and institutional) uses along the Project alignment currently have access under existing roadway conditions. Alternative access would be provided throughout construction activities.

4.14.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Issues				
Fire protection?			✓	
Police protection?			✓	
Schools?			✓	
Parks?			✓	
Other Public Facilities?			✓	

4.15.1 Setting

The proposed Project Site is located within the South Madison Avenue Business Corridor in the City in an area which is currently sparsely developed with a mix of commercial, residential and institutional uses. Fire and police protection are provided by the City; in addition, the City is part of Mutual Aid Region VI, which provides for assistance from other Riverside County members whenever additional services are needed. The Project Site is located within Fire Station One and Three Service Areas. There are no parks or designated open space in the vicinity of the proposed Project Site. The Recreation Element of the adopted City of Murrieta General Plan 2035 contains no planned parks or open space in the vicinity of the proposed Project.

4.15.2 Thresholds

CEQA Guidelines Appendix G thresholds of significance for public services impacts involve projects which result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

4.15.3 Impact Discussion

The proposed Project would improve access and services within the project vicinity which would facilitate commercial buildout under the adopted General Plan 2035. No additional public facilities would be necessary as a result of the proposed Project. Impacts would be less than significant.

- a. **Less than Significant Impact.** Operation of the roadway would not generate an increased demand for fire protection services beyond existing conditions. The proposed infrastructure improvements (i.e., roadway and water lines) would result in improved fire protection in the project vicinity. During construction activities, temporary access and water provisions would be provided. A Traffic Control Plan would be subject to Fire Department review and approval. Impacts would be less than significant.
- b. **Less than Significant Impact.** The proposed Project would not result in an increase in demand for police protection services beyond existing conditions, and therefore, would not have operational impacts to police protection or cause a need for new or altered police protection facilities. Law enforcement may be required during project construction in the event that theft or other criminal activity occurs onsite; however, police response would be provided by existing operations. Impacts would be less than significant.
- c. **No Impact.** The proposed Project would improve access and services within the project vicinity which would facilitate commercial buildout under the adopted General Plan 2035. The need for additional schools resulting from increased population to provide for new employment opportunities has been addressed in the adopted General Plan 2035. Impacts would be less than significant.
- d. **No Impact.** The proposed Project would improve access and services within the project vicinity which would facilitate commercial buildout under the adopted General Plan 2035. The need for

additional parks resulting from increased population to provide for new employment opportunities has been addressed in the adopted General Plan 2035. Impacts would be less than significant.

- e. **No Impact.** The proposed Project would improve access and services within the project vicinity which would facilitate commercial buildout under the adopted General Plan 2035. The need for additional public facilities resulting from increased population to provide for new employment opportunities has been addressed in the adopted General Plan 2035. Impacts would be less than significant.

4.15.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.16 RECREATION

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

4.16.1 Setting

The proposed Project Site is located within the South Madison Avenue Business Corridor in the City. There are no parks or designated open space in the vicinity of the proposed Project Site. The Recreation Element of the adopted City of Murrieta General Plan 2035 contains no planned parks or open space in the vicinity of the proposed Project.

4.16.2 Thresholds

CEQA Guidelines Appendix G thresholds of significance for recreation impacts involve projects which would result in the substantial deterioration of existing recreational facilities or require new facilities which would cause adverse physical effects on the environment.

4.16.3 Impact Discussion

a, b. **No Impact.** The proposed Project would provide infrastructure improvements consistent with the adopted City of Murrieta General Plan 2035. No recreational facilities would be provided by the project, which would not increase the use of parks or open space within the City and surrounding areas. Additional recreational demand resulting from increased commercial development (and associated increases in employment opportunities and population) facilitated by the proposed Project would be addressed through adherence to Recreation Element policies contained within the adopted City of Murrieta General Plan 2035. The Recreation Element includes an unplanned acquisition of a parcel in the project vicinity for use by Pony League baseball fields. The proposed Project would not diminish the potential for acquisition of this property. Impacts would be less than significant.

4.16.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.17 TRANSPORTATION / TRAFFIC

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

The following discussion is based on the Madison Avenue Street Improvements Traffic Impact Analysis Report (RICK Engineering Company, July 15, 2025), included as Appendix 1.

4.17.1 Setting

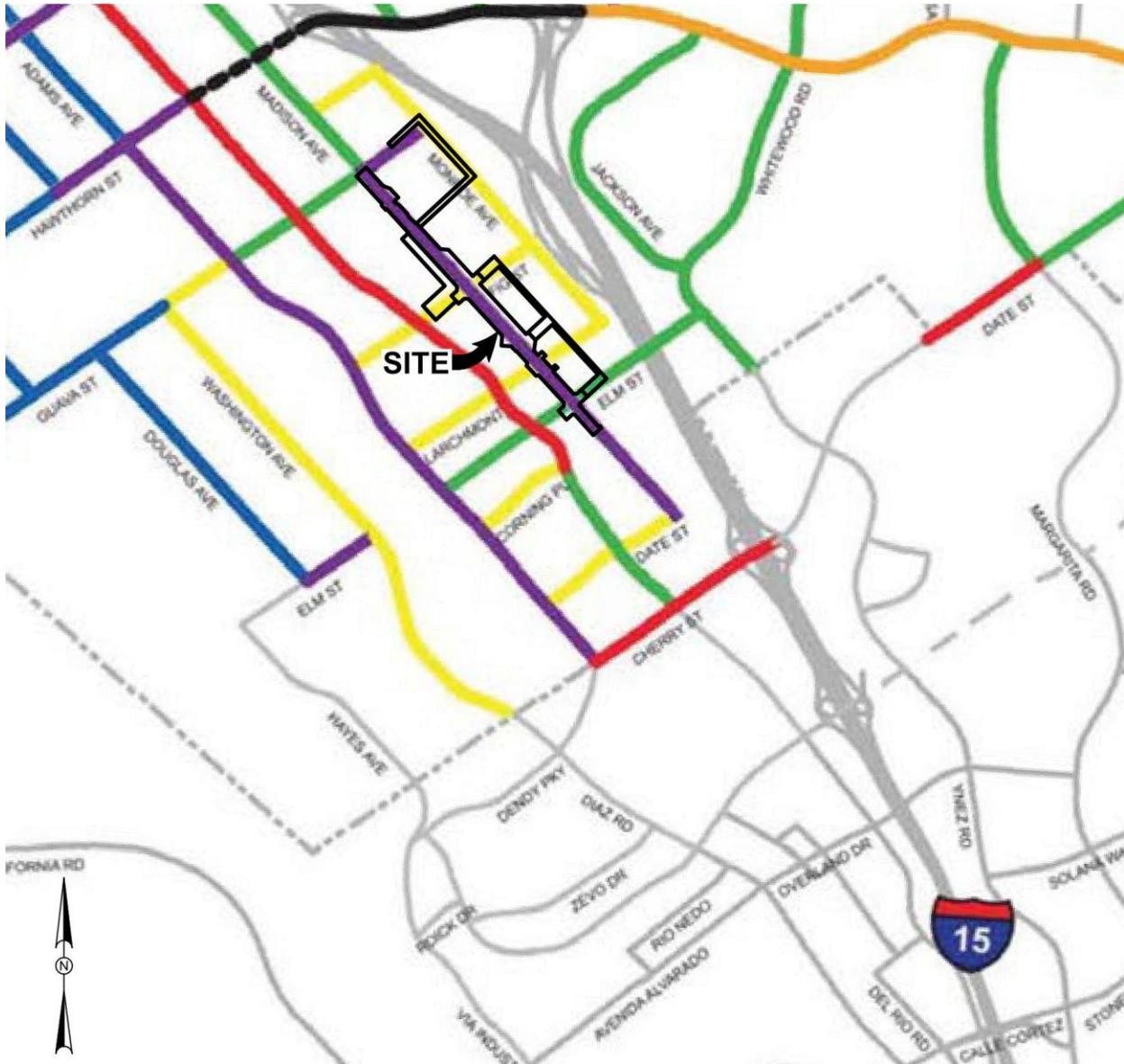


Figure 25: Murrieta General Plan Circulation Element (Excerpt)

EXISTING ROADWAY CONDITIONS

The following City roadways are located within the project area:

Murrieta Hot Springs Road traverses east-west and generally consists of three travel lanes in each direction. At its intersection with Jefferson Avenue, it provides two travel lanes in each direction. There are exclusive left-turn lanes at its intersection with Jefferson Avenue, Madison Avenue and I-15 northbound ramps. The speed limit is posted at 45 mph and on street parking is prohibited. Per the City of Murrieta's General Plan 2035 Circulation Element, Murrieta Hot Springs Road's ultimate roadway classification is an Urban Arterial east of Jefferson Avenue.

Madison Avenue currently operates as a 2-lane roadway from Guava Street to Golden Gate Circle and as a 4-lane roadway with a combination of raised medians and a two-way left turn lane north of Guava Street. There are exclusive left-turn lanes at the intersections of Murrieta Hot Springs Road and Guava Street. There is currently a striped bike lane south of Murrieta Hot Springs Road that terminates at Guava Street. The speed limit is posted at 35 mph and on street parking is prohibited. The City of Murrieta's General Plan identifies Madison Avenue as a 4-lane major roadway from Murrieta Hot Springs Road to Guava Street and a 4-lane secondary roadway from Guava Street and a 4-lane secondary roadway from Guava Street to Date Street.

Jefferson Avenue currently operates as an arterial roadway that provides three northbound and two southbound travel lanes and a bike lane north of Guava Street. South of Guava Street, Jefferson Avenue currently provides two travel lanes with a bike lane in both the southbound and northbound travel directions. The posted speed limit is 50 MPH south of Murrieta Hot Springs Road and 45 MPH north of Murrieta Hot Springs Road and on street parking is prohibited.

Guava Street currently provides two eastbound travel lanes and a bike lane and one westbound travel lane and a bike lane between Jefferson Avenue and Madison Avenue. East of Madison it provides one travel lane in each direction. The posted speed limit is 45 MPH and on street parking is prohibited. Guava Street is not fully constructed (unpaved for approximately 650 feet towards Monroe Avenue).

Fig Street is currently a dirt roadway east of Jefferson Avenue and a 2-lane paved roadway west of Jefferson Avenue. The posted speed limit is 45 MPH and on street parking is generally prohibited. Fig Street east of Jefferson Avenue is unpaved. Elm Street currently provides one travel lane in both directions. Currently there is no posted speed limit. Parking is generally permitted along Elm Street except between Jefferson Avenue and Madison Avenue.

4.17.2 Thresholds

Transportation / Traffic thresholds are based on Appendix G criteria, addressing projects which:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or are inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

4.17.3 Impact Discussion

- a. **Less than Significant.** The proposed Project is consistent with the City of Murrieta’s General Plan 2035, and represents an important component of the City’s Economic Development goals by increasing traffic accessibility within the Madison Avenue Commercial Corridor. While the traffic analysis concludes that the proposed Project roadway segments are anticipated to continue to operate at unacceptable level of service, these “unavoidable significant impacts” were found to be acceptable pursuant to the General Plan EIR “Statement of Overriding Considerations.” Upon approval General Plan 2035, the City found that the Plan’s significant unavoidable effects, including increased transportation and circulation impacts, and growth-inducing impacts are necessary (on balance) to accomplish specific economic development goals (and other considerations) associated with the Plan. Specifically, the General Plan focused on development in vacant and underutilized areas within the City, allowing for new developments that would entail the irreversible commitment of natural resources, energy, land, and human resources.

The proposed Project would directly and indirectly lead to increased population, housing, and employment, all of which is planned for and included in the General Plan 2035 and associated EIR.

Although the proposed Madison Avenue street improvements would accommodate increased traffic and circulation, thereby removing an obstacle to development, it is wholly consistent with approved General Plan 2035 and is not considered a significant growth-inducing impact.

The project proposes to construct the west side of Madison Avenue to its ultimate width from Guava Street to Elm Street consistent with the City of Murrieta’s General Plan 2035 Circulation

Map and reconstruct curb, gutter and sidewalk along the west side of Madison Avenue from Guava Street to Elm. Full widening along the east side of Madison Avenue is anticipated to occur in the future. These proposed “interim” improvements would provide one vehicular travel lane and a bike lane for both the northbound and southbound directions with a center two-way left turn lane from Guava Street to Elm Street, except for the northbound direction between Newton Azrak Street and Guava Street which transitions to provide two vehicles travel lanes and a bike lane.

Table 10: Existing and Projected Traffic Volumes

Roadway Segment	Traffic Volumes (ADT)		
	Existing (2023)	Opening Year (2026) Without Project	Opening Year (2026) With Project
Madison Avenue			
Murrieta Hot Springs Road to Guava Street	8,508	9,019	10,719
Guava Street to Fig Street	2,821	2,990	4,190
Fig Street to Elm Street	1,563	1,657	1,657
Jefferson Avenue			
Murrieta Hot Springs Road to Guava Street	25,183	26,694	31,861
Guava Street to Fig Street	23,950	25,387	27,123
Fig Street to Elm Street	18,098	19,184	20,867
Murrieta Hot Spring Road			
I-15 to Madison Avenue	38,395	40,699	60,668
Madison Avenue to Jefferson Avenue	19,041	20,184	29,862
Guava Street			
Madison Avenue to Jefferson Avenue	3,903	4,137	4,237
Jefferson Avenue to Adams Avenue	4,344	4,605	4,723
I-15			
Northbound	130,000	130,000	130,000
Southbound	110,000	110,000	110,000
I-215			
Northbound	119,000	119,000	119,000
Southbound	105,000	105,000	105,000

Source: Rick Engineering Company 2023, Caltrans 2022
 ADT = Average Daily Traffic

The Traffic Impact Analysis Report (TIA) concludes that nearby project area intersections (signalized and unsignalized) would operate at acceptable levels of service (LOS D or better), and roadway segments were calculated to operate at acceptable levels of service (LOS C or better) for the analysis scenarios with the following exceptions:

- Opening year **without** Madison Avenue roadway widening improvements operations (2026).

Roadways:

Murrieta Hot Springs Road between I-15 ramps and Madison Avenue (LOS D)

Note: The City of Murrieta’s General Plan 2035 concludes that this roadway segment is anticipated to continue to operate at an unacceptable level of service and identified as an “unavoidable significant impact”.

- *Opening year **with** Madison Avenue roadway widening improvements operations (2026)*

Roadways:

Murrieta Hot Springs Road between I-15 ramps and Madison Avenue (LOS D)

Note: The City of Murrieta’s General Plan 2035 concludes that this roadway segment is anticipated to continue to operate at an unacceptable level of service and identified as an “unavoidable significant impact”.

- *General build out operations (2035)*

Signalized Intersections:

Murrieta Hot Springs Road/Madison Avenue (LOS E during the PM Peak hour)

Murrieta Hot Springs Road/Jefferson Avenue (LOS F during the PM Peak hour)

Note: Upon completion of the proposed intersections geometric enhancements described in the City of Murrieta’s General Plan 2035, the intersections of Murrieta Hot Springs Road/Madison Avenue and Murrieta Hot Springs Road/Jefferson Avenue are anticipated to continue to operate at an unacceptable level of service and the impact is described as a “unavoidable significant impact”.

Roadways:

Murrieta Hot Springs Road between I-15 ramps and Madison Avenue (LOS E)

Note: The City of Murrieta’s General Plan 2035 concludes that this roadway segment is anticipated to continue to operate at an unacceptable level of service and identified as an “unavoidable significant impact”.

Proposed Improvements. Pursuant to the findings of the TIA, the proposed Project, as designed, would maintain current traffic operations at acceptable levels. At year 2035 General Plan build out operations, the following would raise project roadway and intersections to acceptable levels at impacted locations:

- **At Murrieta Hot Springs Road/Madison Avenue:**
 - Provide overlap phasing for the westbound and eastbound right turn movements, and coordinate traffic signals along Murrieta Hot Springs Road;
 - Northbound: Two left turn lanes, Two through lanes, Two right turn lanes;
 - Southbound: Two left turn lanes, One through lane, One shared through right turn lane;
 - Eastbound: Two left turn lanes, Four through lanes, One right turn lane (Overlap);
 - Westbound: Two left turn lanes, Three through lanes, One right turn lane (Overlap).
- **Murrieta Hot Springs Road/Jefferson Avenue:**
 - Provide overlap phasing for the northbound and westbound right turn movements and coordinate traffic signals along Murrieta Hot Springs Road;
 - Northbound: One left turn lane, Three through lanes, Two right turn lane (Overlap);
 - Southbound: Two left turn lanes, Two through lanes, One shared through-right turn lane;
 - Eastbound: One left turn lane, One through lane, One shared through right turn lane;
 - Westbound: Two left turn lanes, Two through lanes, Two right turn lanes (Overlap).

Adherence to project design features prepared by the Project Engineer would ensure impacts are less than significant.

- b. **No Impact.** As the Lead Agency, the City has chosen the methodology employed in the attached Street Improvements Traffic Impact Analysis Report to evaluate the proposed Project, which would be consistent with, and serve to accomplish the goals of the City of Murrieta General Plan 2035.
- c. **Less than Significant.** The proposed Project would eliminate grade changes in the current roadway and improve intersections. The proposed Project would improve ingress and egress to adjoining properties. Impacts would be less than significant.

- d. **Less than Significant.** The proposed Project would improve emergency access to adjoining properties. Emergency access provisions during the short-term construction phase would be consistent with Fire Department requirements, including roadway width and surfacing of all temporary access roads.

4.17.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.18 TRIBAL CULTURAL RESOURCES

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

The following information is based on a Phase I Cultural Resource Assessment (George and Ollendorf, Applied EarthWorks, September 2018), and Cultural Resource Revalidation Memorandum (Cochrane, Applied EarthWorks, May 16, 2024), included as Appendix 4.

4.18.1 Setting

Physical. The proposed Project area is within the Peninsular Ranges with elevations ranging from approximately 1,075 feet to 1,110 feet above mean sea level (amsl) on an unsectioned portion of the

Temecula Land Grant, Township 7 South, Range 3 West, San Bernardino Baseline and Meridian (, as shown on the 1973 Murrieta, California 7.5' U.S. Geological Survey (USGS) topographic quadrangle).

REGULATORY

Assembly Bill 52 (AB52; effective July 1, 2015) introduces tribal cultural resources as a class of cultural resources and additional considerations relating to Native American consultation into CEQA. Tribal cultural resources are similar to the Federally defined Traditional Cultural Properties while also incorporating consideration of local and state significance and required mitigation pursuant to CEQA.

Native American Historic Resource Protection Act (NAHPRA; PRC Sxn. 5097 et seq). State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the NAHRPA makes it a misdemeanor to deface or destroy a Native American historic or cultural site that is listed in or eligible for the California Register of Historical Resources (CRHR).

Native American Graves Protection and Repatriation Act (NAGPRA; 25 U.S.C., Chapter 32, effective 2001) NAGPRA: 1) requires all State agencies and museums that receive funding and that have possession or control over the collection of human remains or cultural items, to complete an inventory and summary of these remains and items on or before 01/01/03, with certain exceptions; and 2) provides a process for the identification and repatriation of these items to the appropriate tribes.

California Health and Safety Code (Sxn. 7050.5). California law protects Native American burials, skeletal remains, an associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. CHSCS requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains. If the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the NAHC within 24 hours. The NAHC will notify the most likely descendant, and, with the permission of the landowner, the most likely descendant may inspect the site of the discovery. The inspection must be completed within 24 hours of notification of the most likely descendent by the NAHC. The most likely descendent may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

4.18.2 Thresholds

A cultural resource considered “historically significant” is considered a “historical resource,” if it is included in a local register of historical resources or is listed in or determined eligible for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14, Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage:

1. Is associated with the lives of persons important in our past;
2. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
3. Has yielded, or may be likely to yield, information important in prehistory or history.

Compliance with CEQA’s cultural resource provisions typically involves several steps. Briefly, archival research and field surveys are conducted, and identified cultural resources are inventoried and evaluated in prescribed ways. Prehistoric and historical archaeological sites, as well as standing structures, buildings, and objects deemed historically significant, must be considered in project planning and development.

4.18.3 Impact Discussion

- a. i.,ii. **Less than Significant with Mitigation Incorporated.** The Phase I Cultural Resource Assessment included: a) a records search and literature review at the Eastern Information Center (EIC) of the California Historical Resource Information System (housed at the University of California, Riverside); b) a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC); c) communication with Native American tribal representatives; and d) an archaeological field survey of the Project area.

Applied Earthworks contacted the NAHC on February 20, 2024, and received a positive response on March 4, 2024. As a result, the City sent out AB 52 notification letters (dated 03/01/24) to the following individuals/organizations:

- The Tribal Historic Preservation Office for the Agua Caliente Band of Cahuilla Indians (ACBCI)
- Ann Brierty, Tribal Historic Preservation Officer for the Morongo Band of Mission Indians
- Ebru Odzil, Cultural Analyst for the Pechanga Band of Indians

- Cheryl Madrigal, Tribal Historic Preservation Officer for the Rincon Band of Luiseño Indians
- Joseph Ontiveros, Tribal Historic Preservation Officer for the Soboba Band of Luiseño Indians

The following responses were received:

Juan Ochoa, Assistant Tribal Historic Preservation Officer for the Pechanga Band responded with a request to begin formal AB52 Consultation with the City by noting the proposed Project site is within the 'Atáaxum (Luiseño) aboriginal territory as evidenced by the existence of cultural features associated with religious practice and an extensive artifact record in the Project vicinity (email, dated 03/27/24).

A City email (dated 03/30/24) noting that Applied EarthWorks would reach out directly to provide cultural resource information for the project area was followed by an Applied EarthWorks email (dated 04/01/24) to Juan Ochoa with copies of the 30% street improvement plans, the 2018 cultural report, and a link to the cultural resource records search data.

Shuuluk Linton, Tribal Historic Preservation Coordinator for the Rincon Band of Luiseño Indians responded with an email and letter (dated 03/20/24), noting that the proposed Project site is within the Traditional Use Area of the Luiseño people and, therefore, the Tribe is traditionally and culturally affiliated to the project area. The Tribe requested copies of the cultural survey report, geotechnical report, and grading plans for review, following which the Tribe would consult on potential project impacts to cultural resources.

A City email (dated 03/20/24) noting that Applied EarthWorks would reach out directly to provide cultural resource information for the project area, was followed by an Applied EarthWorks email (dated 03/25/24) to Shuuluk Linton with copies of the 30% street improvement plans, a geotechnical update, the 2018 cultural report, and a link to the cultural resource records search data to Shuuluk Linton.

A subsequent City email (dated 05/09/24) informed Shuuluk Linton that the Geotechnical Report would not be available until June and asked if the Tribe was interested in commencing with Government-to-Government consultation to discuss project details.

Luis Salazar, Cultural Resources Analyst for the ACBCI replied that the proposed Project site is not within the Tribe's Traditional Use Area and deferred to other tribes in the area (email, dated 03/01/24).

Laura Chatterton, Cultural Resources Specialist for the Morongo Band of Mission Indians replied that the proposed Project is not within the boundaries of the ancestral territory or traditional use area of Cahuilla and Serrano people of the Morongo Band, and encouraged consultation with tribes more closely associated with the proposed Project site.

No response was received from the **Soboba Band of Luiseño Indians**. Therefore, the City assumes the Tribe does not wish to consult under AB 52 for the project.

As indicated above, tribal consultation with the Pechanga Band and the Rincon Band of Luiseño Indians is ongoing and incomplete as the City continues to provide information. Mitigation requiring that no physical activities involving earth disturbance take place on the project site until satisfactory completion of the tribal consultation process, in combination with Cultural Resources Mitigation Measures 1 through 7, would ensure that potential impacts to tribal cultural resources are reduced to less than significant levels. Residual impacts would be less than significant.

Additional Background. Applied Earthworks had previously contacted the NAHC on April 12, 2018, for a review of the SLF, to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, places of religious or sacred activity) are present within or adjacent to the Project area. The NAHC responded on April 17, 2018, stating that the SLF search was completed with negative results; however, the area is sensitive for cultural resources. The NAHC requested that 27 Native American individuals and organizations be contacted to elicit information regarding cultural resource issues related to the proposed Project. Upon review of the Native American contact list, AE removed redundancies and narrowed the list to eight individuals and/or organizations who are traditionally and culturally affiliated to the geographic area where the Project is located. A letter describing the Project and asking these individuals and organizations for their input was sent via United States Postal Service (USPS) and electronic mail on June 28, 2018. A copy of the letters sent, the list of contacts, and responses received are included in Appendix B. A second attempt at correspondence was made on July 17, 2018.

Individuals/organizations contacted included:

- Patricia Garcia-Plotkin, Director of the Tribal Historic Preservation Office for the Agua Caliente Band of Cahuilla Indians (ACBCI)
- Joyce Perry, Tribal Manager for the Juaneño Band of Mission Indians Acjachemen Nation
- Thomas Rodriguez, Chairperson of the La Jolla Band of Luiseño Indians
- Shasta Gaughen, Tribal Historic Preservation Officer for the Pala Band of Mission Indians

- Temet Aguliar, Chairperson of the Pauma Band of Luiseño Indians – Pauma & Yuima Reservation
- Paul Macarro, Cultural Resources Coordinator for the Pechanga Band of Luiseño Indians
- Jim McPherson, Tribal Historic Preservation Officer for the Rincon Band of Mission Indians
- Joseph Ontiveros, Cultural Resource Department for the Soboba Band of Luiseño Indians

Three responses were received. The ACBCI noted that the Project is not within the boundaries of the recognized ACBCI Reservation; therefore, they deferred to other tribes in the area. The Soboba Band of Luiseño Indians deferred this specific Project to the Pechanga Band of Luiseño Indians. The Pechanga Band of Luiseño Indians noted on June 29, 2018, that they received the Project scoping letter and that their response was forthcoming. No additional response was received from the Pechanga Band of Luiseño Indians at that time.

Because the proposed Project was placed on hold for nearly three years, the Revalidation Memorandum was prepared.

In response to an Applied EarthWorks inquiry, the Native American Heritage Commission (NAHC) indicated that a Sacred Lands File (SLF) review (to determine if any known Native American cultural properties (e.g., traditional use or gathering areas, or places of religious or sacred activity) are present within or adjacent to the Project area) was completed with positive results. The resultant City outreach to Native American individuals and organizations offering formal government-to-government consultation (pursuant to Assembly Bill 52 (AB 52)) resulted in the following:

- Pechanga Band of Indians responded that the Project is within the 'Atáaxum (Luiseño) territory, therefore, the Tribe's aboriginal territory as evidenced by the existence of cultural features associated with religious practice and an extensive artifact record in the vicinity of the Project. The Tribe formally requested to begin AB 52 consultation with the City. Copies of the 30 percent street improvement plans, the 2018 cultural report, and a link to the cultural resource records search data were provided to the Tribe for review.
- Rincon Band of Luiseño Indians noted the Project is within the Traditional Use Area of the Luiseño people and, therefore, the Tribe is traditionally and culturally affiliated to the project area. The Tribe requested copies of the cultural survey report, geotechnical report, and grading plans to review. After their review, the Tribe will consult on potential project impacts to cultural resources. Copies of the 30 percent street improvement plans, a geotechnical update, the 2018 cultural

report, and a link to the cultural resource records search data were provided to the Tribe for review.

- Agua Caliente Band of Cahuilla Indians indicated that the Project is not within the Tribe’s Traditional Use Area and defers to the other tribes in the area.
- Morongo Band of Mission Indians indicated that the Project is not within the boundaries of the ancestral territory or traditional use area of Cahuilla and Serrano people of the Morongo Band of Mission Indians and encouraged consultation with tribes more closely associated with the lands upon which the Project is located.
- No response was received from the Soboba Band of Luiseño Indians.

4.18.4 Mitigation and Residual Impacts

TCR-1 Tribal Consultation Process. At least 30 days prior to the start of any ground-disturbing activities, the City shall obtain written confirmation from the Consulting Tribe(s) that the consultation process has been completed to their mutual satisfaction.

Plan Requirements/Timing: The City Project Engineer shall ensure that the Tribal Consultation process is conducted and completed.

Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.

4.19 UTILITIES / SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓	
c. Result in a determination by the wastewater treatment provider, which serves or may serve the			✓	

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?				
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			✓	

4.19.1 Setting

Utilities within the existing 60-foot-wide Madison Avenue ROW consist of: 1) overhead power lines (along the entire length of the project); 2) a water line (from the north to approximately 1,300 feet south of the Guava Street Intersection); 3) a sewer line (from the north to approximately 2,000 feet south of the Guava Street intersection); 4) a gas line (from the Guava Street intersection to the Border Control facility); and 5) fiber optic cables (along the entire length of the project site, either on the overhead electric poles, or underground, or both). Various existing storm drain facilities are located along the project reach to convey storm water drainage from the east side of the roadway to the west.

4.19.2 Thresholds

Utility/Service Systems thresholds are based on Appendix G criteria, addressing:

- Compliance with federal, state, and local statutes and regulations
- Adequacy of service provider’s facility capacities
- Impairment of solid waste reduction goals

4.19.3 Impact Discussion

- a. **Less than Significant Impact.** The proposed Project would include the construction of new water, sewer and electric lines, and new stormwater drainage facilities. All improvements would be located within the development footprint subject to mitigation measures addressing Biological

Resources, Cultural, and Paleontological Resources. Adherence to these mitigation measures would ensure that impacts are less than significant.

b, c. **Less than Significant Impact.** The proposed Project does not exceed wastewater treatment requirements, require the construction of new treatment facilities, nor affect the capacity of treatment providers. Water supplies would be sufficient to meet project needs during construction, which would include site watering for dust reduction, construction equipment and vehicle washing, and cement/concrete mixing. The amount of water used during construction would not substantially deplete area supplies and would not require new sources of water or the construction of new or altered water supply facilities. Wastewater generated during project construction would be minimal, consisting of portable toilet effluent. The proposed Project would have a less than significant impact on water and wastewater treatment facilities.

d, e. **Less than Significant Impact.** The Project would not result in a need for new landfill capacity. Construction waste resulting from the Project would be disposed of through participation in source reduction and recycling programs implemented by the City. Construction grading would require the importation of soil; no export of excess soil would be required. Impacts would be less than significant.

4.19.4 Mitigation and Residual Impacts:

No mitigation is required. Residual impacts would be less than significant.

4.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Substantially impair an adopted emergency response plan or emergency evacuation plan?			✓	
c. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			✓	
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that			✓	

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
may result in temporary or ongoing impacts to the environment?				
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			✓	

4.20.1 Setting

Physical. A portion of the proposed Project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ). See Figure 26.

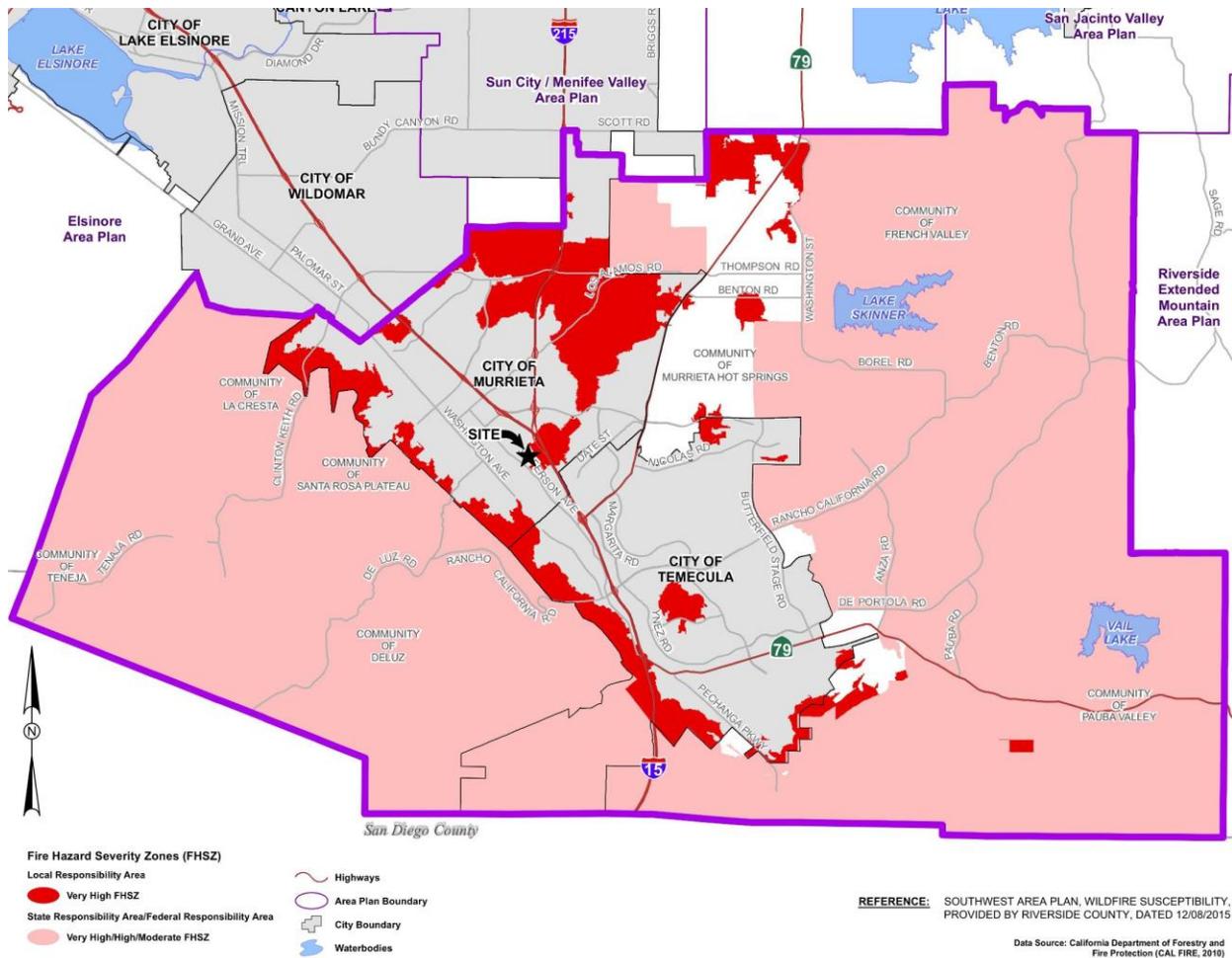


Figure 26: Fire Hazard Severity Zones

4.20.2 Thresholds

CEQA Appendix G Guidelines establish wildfire hazard thresholds for those projects which:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

4.20.3 Impact Discussion

a, d. **Less than Significant Impact.** Emergency management services are overseen by the Murrieta Fire Department. Construction activities associated with implementation of the proposed Project would temporarily restrict access for emergency vehicles due to temporary road closures within the project site during construction. However, construction would be required to comply with the County of Riverside's Emergency Operations Plan to ensure the appropriate emergency access by means of adjacent roadways. Furthermore, a Traffic Control Plan would be implemented to identify traffic control measures through the duration of project construction activities. Operations associated with the widened roadway would be similar to existing conditions, but would provide increased traffic capacity to accommodate future traffic volumes, which would also facilitate emergency response and evacuation activities in the project area. As such, implementation of the project would not impair an emergency response or evacuation plan, and impacts would be less than significant.

b, c. **Less than Significant Impact.** The City is subject to both wildland and urban fires due to its climate, topography, and native vegetation. The extended droughts characteristic of the region's Mediterranean climate and increasingly severe dry periods associated with global warming result in large areas of dry native vegetation that provide fuel for wildland fires. While a portion of the proposed Project site is located within a VHFHSZ, the Project would expand an existing roadway and improve emergency vehicle access to the area. The majority of the land impacted by the proposed roadway expansion is currently undeveloped. Construction activities would not

substantially exacerbate wildfire risk as they would be installed within and adjacent to existing roadways. Operation and maintenance of the project would not differ from the current usage as a public right-of-way. Therefore, operation and maintenance of the proposed Project would not exacerbate wildfire risk or result in temporary or ongoing impacts to the environment.

4.20.4 Mitigation and Residual Impacts

No mitigation is required. Residual impacts would be less than significant.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

- a. **Less than Significant with Mitigation Incorporated.** The proposed Project has the potential to substantially degrade the quality of the environment. However, implementation of mitigation measures (including habitat restoration and construction monitoring), and adherence to all applicable policies of the Murrieta General Plan, will reduce impacts to less than significant levels, ensuring that impacts to fish and wildlife habitat and species will be minimized and fish or wildlife populations will be prevented from dropping below self-sustaining levels.

Implementation of mitigation measures (based on an archeological survey, record search, and tribal consultation), and adherence to all applicable policies of the Murrieta General Plan, will reduce impacts to less than significant levels, ensuring that no important examples of the major periods of California history or prehistory will be eliminated.

- b. **Less than Significant with Mitigation Incorporated.** The project may contribute to cumulative impacts. However, it is consistent with, and an important component of, the Murrieta General Plan 2035. Unavoidable Class I adverse environmental impacts associated with the General Plan, including cumulative impacts, have been addressed in the Statement of Over-riding Considerations prepared for the General Plan EIR. Furthermore, the entire project (roadway improvements, and water and sewer line installation) will be monitored under by the City, and the activities of each project will be coordinated in order to minimize the potential for cumulative impacts to occur. Potential impacts have been identified in the categories of biological resources, cultural resources, geology and soils (including paleontological resources), and Tribal Cultural Resources. The evaluation contained in this document concludes that potential impacts to the environment can be reduced to a less than significant levels with implementation of the identified mitigation measures. Based on data provided in this document, including the type of project proposed and its location, it is concluded that implementation of the project will not result in impacts that are either individually or cumulatively considerable or significant when viewed in relation to past, present or probable future projects.
- c. **Less than Significant with Mitigation Incorporated.** The Project will not result in any identifiable substantial adverse effects on humans either directly or indirectly. The goal of the Project is to provide improved circulation and public utilities within the City, as envisioned by the City's General Plan. Implementation of required mitigation measures, and adherence to all applicable policies of the Murrieta General Plan, will reduce these impacts to less than significant levels.

5 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
AESTHETICS					
AES-1	Construction Equipment Staging and Appearance. For future development located in or immediately adjacent to residentially zoned properties, construction documents shall include language that requires all construction contractors to strictly control the staging of construction equipment and the cleanliness of construction equipment stored or driven beyond the limits of the construction work area. Construction equipment shall be parked and staged within the project site, as distant from residential use, as reasonably possible. Staging areas shall be screened from view from residential properties.	Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.	City Project Engineer and designated construction inspector.		
AES-2	Construction Vehicles and Surrounding Streets. Construction documents shall include language requiring that construction vehicles be kept clean and free of mud and dust prior to leaving the development site. Streets surrounding the development site shall be swept daily and maintained free of dirt and debris.	Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.	City Project Engineer and designated construction inspector.		
AES-3	Construction Worker Parking. Construction worker parking may be located off-site with prior approval by the City. On-street parking of construction worker vehicles on residential streets shall be prohibited.	Construction documents shall contain the information above and be approved by the City Project Engineer prior to initiation of on-site operations.	City Project Engineer and designated construction inspector.		
BIOLOGICAL RESOURCES					
BIO-1	MSHCP Local Development Mitigation Fee (LDMF). The MSHCP requires a fee of five percent of the capital cost of the project for City road projects. The fees shall be either collected by, or submitted to, the Western Riverside County Regional Conservation Authority (RCA).	Prior to initiation of earth disturbance, the City Project Engineer shall ensure payment of the appropriate MSHCP LDMF in accordance with the MSHCP Mitigation Fee Implementation Manual (RCA 2022), as updated.	City Project Engineer		
BIO-2	Pre-construction Burrowing Owl Survey. A Pre-Construction Survey for burrowing owls shall be conducted no more than 30 days prior to initial ground-disturbing activities (e.g., vegetation clearing, clearing, and grubbing, grading, tree removal, site watering, equipment staging, etc.). The survey shall be conducted by a USFWS- and/or CDFW-approved biologist in order to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. <ul style="list-style-type: none"> a. If no burrowing owls are detected during the Pre-Construction Survey, no further mitigation is required. b. If burrowing owls are detected on the project site prior to the initiation of ground-disturbing activities, the City Project Engineer shall inform the RCA and the Wildlife Agencies within three days of detection and coordinate further as necessary. Additional coordination includes the possibility of a Burrowing Owl Protection and Relocation Plan requirement prior to initiating ground disturbance. 	The City Project Engineer shall be responsible for coordination of the Pre-Construction Survey, and implementation of the Burrowing Owl Protection and Relocation Plan (if required, following CDFW and USFWS review and approval).	City Project Engineer, designated construction inspector, and approved Biologist.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>c. If active burrowing owl burrows are detected onsite during project implementation and construction, the Project Engineer shall ensure that no ground-disturbing activities are conducted until:</p> <ul style="list-style-type: none"> • an approved biologist concurs that there is no indication of burrows being used by adult or juvenile owls; or • a CDFW-approved Burrowing Owl Protection and Relocation Plan is prepared and implemented as described below. <p>The Burrowing Owl Protection and Relocation Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and MSHCP. The approved biologist and City Project Engineer shall coordinate with CDFW and USFWS on development of the Plan, which shall describe proposed avoidance, relocation, monitoring, minimization, and/or mitigation actions. The Plan shall include: i) the number and location of occupied burrow sites; ii) details on proposed buffers if avoiding the burrowing owls; and/or iii) information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Plan. A final letter report shall be prepared by an approved biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW prior to the start of Project activities.</p> <p>d. If burrowing owls are observed within the Project Site during Project implementation and construction, the City Project Engineer shall notify CDFW immediately, and in writing within 48 hours of detection. A Burrowing Owl Protection and Relocation Plan shall then be prepared pursuant to the requirements above and submitted to CDFW for review and approval within two weeks of detection.</p> <p>No Project activity shall occur prior to Plan approval within:</p> <ul style="list-style-type: none"> • 500 feet of active burrowing owl burrows: <ul style="list-style-type: none"> ○ during the breeding season of March 1 to August 31; or ○ if juvenile owls are present; • 250 feet of active burrows during the non-breeding season. <p>e. If ground-disturbing activities commence, but the site is left undisturbed for more than 30 days, an additional Pre Construction Survey for burrowing owl shall be conducted and reported to CDFW as described above. Detection of a burrowing owl or burrow shall be followed by the same procedure described above.</p>				
BIO-3	<p>Crotch's Bumble Bee Survey. In the event Crotch's bumble bee remains a candidate species or its status becomes elevated to a listed species under the California Endangered Species Act, a qualified biologist shall conduct updated protocol-level surveys in accordance with CDFW Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW, June 6, 2023) or subsequently adopted guidelines. Any modification to the survey protocol shall be submitted to CDFW for review and approval prior to survey implementation. The results of the survey shall be summarized in a survey report and submitted to CDFW prior to initiation of ground-</p>	<p>Prior to initiation of earth disturbance, the City Project Engineer shall confirm the status of Crotch's bumble bee protection and follow the required procedure, if any.</p>	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>disturbing activities. Surveys shall be conducted to determine the presence/absence of Crotch's bumble bee during the appropriate flying season no more than two years prior to construction activities where suitable habitat occurs in direct impact area(s). If the candidate State endangered listing is removed for Crotch's bumble bee and the species does not become listed as a State threatened or endangered species, then this measure and the additional measures below for California Endangered Species Act compliance (BIO-4 and BIO-5) would no longer be required. If Crotch's bumble bee is found to occur and has potential to be directly or indirectly adversely affected by construction, the City shall implement the avoidance and minimization measures described in mitigation measure BIO-4. The locations of any Crotch's bumble bee detected during the protocol survey shall be reported to the CDFW's CNDDDB through submittal of a CNDDDB Online Field Survey Form.</p>				
BIO-4	<p>Crotch's Bumble Bee Avoidance and Agency Consultation. If Crotch's bumble bee remains a candidate species or its status becomes elevated to a listed species under the California Endangered Species Act, and the species is found to occur within the direct impact area(s), the project proponent shall consult with the CDFW and implement measures to avoid or minimize impacts. Unless otherwise directed by CDFW, the following measures shall be implemented:</p> <p>a. Flight Season Requirements:</p> <ul style="list-style-type: none"> • Removal (i.e., vegetation clearing, crushing, trimming) of habitat suitable for Crotch's bumble bee shall be avoided during the species' flight season (February 1 through October 31), to the maximum extent feasible; • Construction activities necessary during the flight season shall be preceded by a Pre-Construction Survey for Crotch's bumble bee queens, gynes, and colonies. The survey shall be conducted during suitable weather conditions in accordance with CDFW requirements by a CDFW-approved biologist no more than 14 days prior to construction. If the findings of the survey are negative, no further assessment is required, and construction activities may proceed. <p>b. Active Nest Site Requirement: If an active Crotch's bumble bee nest site is detected, a minimum 50-foot avoidance buffer shall be established by the approved biologist. Construction activities shall avoid any active nest sites until the approved biologist has verified that the nesting colony is no longer active.</p> <p>c. Bumble Bee Detection Requirement: If Crotch's bumble bee is detected but no active nest sites are found, an approved biological monitor shall be present during vegetation removal activities occurring during: the queen flight period (February through March); the colony active period (March through September); and/or the gyne flight period (September through October). If Crotch's bumble bee is observed within the direct impact area during construction activities, the biological monitor shall immediately stop work activities within the area until the bumble bee freely moves away from the work area.</p>	<p>Prior to initiation of construction activities that could result in direct adverse impacts to Crotch's bumble bee, the City Project Engineer shall consult with the CDFW regarding potential effects to the species and, if required by CDFW in accordance with the California Endangered Species Act. If take of Crotch's bumble bee is expected, no construction activities with the potential to result in direct or indirect adverse impacts on Crotch's bumble bee shall occur until authorized by CDFW.</p>	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		
BIO-5	<p>Compensatory Mitigation for Crotch's Bumble Bee. Direct impacts to Crotch's bumble bee occupied habitat shall be mitigated at a minimum 1:1 ratio (in consultation with the CDFW in accordance with the California Endangered Species Act). Mitigation that satisfies the fully mitigated standard may occur through one or more of the following:</p> <ul style="list-style-type: none"> • onsite and/or offsite habitat creation, restoration, and/or enhancement; 	<p>The City Project Engineer shall ensure compliance with all measures (e.g., avoidance, conservation) incorporated into any permits or authorizations issued by the applicable regulatory agencies.</p>	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<ul style="list-style-type: none"> • acquisition and preservation of onsite and/or offsite lands demonstrated to be occupied by the species; and/or • purchase of mitigation credits at an approved mitigation bank. If mitigation occurs through habitat creation, restoration, and/or enhancement, a Habitat Restoration Plan shall be prepared and approved by CDFW. 				
BIO-6	<p>Nesting Bird Avoidance. All site-preparation and construction activities (including but not limited to earth disturbance, tree and vegetation removal) shall be avoided, to the maximum extent feasible, during the nesting season of potentially occurring nesting species (generally February 15 to August 31). a. If site-preparation activities must take place during the nesting season (generally February 15 to August 31), a CDFW-approved biologist shall be retained to perform a Pre-Construction Survey, no more than three days prior to site preparation activities, for active nests of bird species protected by the MBTA or the California Fish and Game Code. The City Project Engineer shall ensure adherence to the following:</p> <ol style="list-style-type: none"> 1. An approved biologist, experienced in identifying local and migratory bird species of special concern, shall conduct the Survey using appropriate survey methodology, including nesting survey techniques for recognizing breeding and nesting behaviors, and locating nests. As appropriate, the Survey shall establish appropriate avoidance and minimization measures, including monitoring for efficacy. 2. The survey(s) shall be conducted at the appropriate time of day/night, during appropriate weather conditions. Surveys shall encompass all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. If no active nests are confirmed to be present on the project site, no biological monitor is needed. If active bird nests are confirmed to be present during the survey, an appropriate buffer zone shall be established. Minimum required buffers are: <ol style="list-style-type: none"> a. 500 feet from an active listed species or raptor nest; b. 300 feet from active passerine (perching birds or songbirds), sensitive, and protected bird nests (i.e., non-listed); and c. 100 feet from sensitive or protected songbird nests. Buffers shall be delineated and flagged, and no construction activity shall occur within the delineated area until: <ol style="list-style-type: none"> a) nesting species have fledged, and the nest is no longer active; or b) the nest has failed. The approved biologist shall monitor the nest(s) at the onset of project activities, and at the onset of any changes in such project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers shall be halted until the nesting effort is finished (i.e., the juveniles are surviving independently from the nest). The biologist shall review and verify compliance until 	The City Project Engineer shall ensure compliance with all measures.	City Project Engineer, designated construction inspector, and approved Biologist.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>all nesting is complete, at which time work may resume within avoidance areas. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the City Project Engineer for mitigation monitoring compliance record keeping.</p> <p>b. Nesting Raptor Survey. Prior to vegetation clearing between January 1 and February 15, a Nesting Raptor Survey shall be conducted on the project site as well as a 500-foot buffer. The Survey shall be conducted by an approved biologist, no more than three days prior to vegetation removal.</p>				
BIO-7	<p>Aquatic Resources Permitting and Mitigation. Prior to project activities occurring within jurisdictional aquatic resource areas, a Determination of Biologically Equivalent or Superior Preservation (DBESP) for impacts to MSHCP Section 6.1.2 riparian/riverine resources shall be prepared and submitted to the RCA, USFWS, and CDFW for approval. The DBESP report shall address the proposed permanent (0.33 acres) and temporary (0.28 acres) impacts, and the proposed mitigation sufficient to offset impacts to MSHCP riparian/riverine areas. Calculated mitigation is based on one of the following:</p> <ol style="list-style-type: none"> 1. the purchase of a minimum of 0.33 acres of re-establishment and rehabilitation credits at the Riverpark Mitigation Bank and/or San Luis Rey mitigation bank or other agency approved mitigation bank; 2. purchase of a minimum of 0.33 acre of preservation credits at the Barry Jones Mitigation Bank; 3. restoration and improvements to a minimum of 0.33 acre of the features within and adjacent to the Study Area; 4. via off-site mitigation at a property owned by the City. 	<p>Prior to commencement of Project activities, the City Engineer shall coordinate with the regulatory agencies for permits and approvals, or confirmation that no permits or approvals are required, as applicable, from:</p> <ul style="list-style-type: none"> • USACE: Clean Water Act Section 404 Permit or documentation of no permit required. • RWQCB: Clean Water Act Section 401 Water Quality Certification or Waste Discharge Requirements. • CDFW: California Fish and Wildlife Code Section 1602 Streambed Alteration Agreement. 	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		
BIO-8	<p>Biological Monitor. Prior to commencement of on-site activities, a CDFW-approved biologist shall be retained to monitor vegetation clearing and/or grubbing activities.</p> <p>The biological monitor shall:</p> <ol style="list-style-type: none"> 1. attend the pre-construction meeting(s) and present information to all construction personnel about the sensitive resources in the project vicinity; 2. be present during the removal of vegetation in order to ensure that the approved limits of disturbance are not exceeded; and 3. conduct periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. <p>Prior to construction activities occurring in areas containing sensitive biological resources, the biologist shall conduct worker training for recognition of sensitive biological resources and avoidance of those areas marked as sensitive biological resources.</p>	<p>The City Project Engineer shall ensure compliance with all measures.</p>	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		
BIO-9	<p>Temporary Construction Fencing. Prior to construction, the temporary construction fencing shall be installed around all environmentally sensitive areas at the limits of approved work areas. These limits shall be identified on construction plans and shall include riparian/riverine resources and jurisdictional waters. Temporary construction fencing shall be installed under the direction of the</p>	<p>The City Project Engineer shall ensure compliance with all measures.</p>	<p>City Project Engineer, designated construction inspector, and approved Biologist.</p>		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	biological monitor and shall be maintained and remain in place throughout the duration of Project construction.				
BIO-10	Non-native Invasive Species Restrictions. No plant species contained in List 6.2 of the MSHCP shall be utilized on the project site, including but not limited to hydroseed mixes used for interim erosion control.	This requirement shall be listed on all Plans.	City Project Engineer, designated construction inspector, and approved Biologist.		
CULTURAL RESOURCES					
CUL-1	Cultural Resources Treatment and Monitoring Agreement. At least 30 days prior to the start of any ground-disturbing activities, the City shall contact the Consulting Tribe(s) to develop a Cultural Resources Treatment and Monitoring Agreement (“Agreement”). The Agreement shall address the treatment and final disposition of any tribal cultural resources, sacred sites, human remains, or archaeological resources inadvertently discovered on the project site ; project grading, ground disturbance, and development scheduling; the designation, responsibilities, and participation of tribal monitor(s) during grading, excavation, and ground disturbing activities; and compensation for the tribal monitors, including overtime, weekend rates, and mileage reimbursements. The Tribal Monitor(s) shall have the authority to temporarily divert, redirect or halt the ground-disturbance activities to allow recovery of cultural resources, in coordination with the Project Archeologist.		City Project Engineer, designated construction inspector, and Project Archeologist.		
CUL-2	Pre-Construction Meeting. A qualified archeologist and tribal monitor shall attend a Pre-Construction Meeting with City staff, the contractor, and appropriate subcontractors to discuss the monitoring program, including protocols to be followed in the event that cultural material is encountered.	The City Project Engineer shall ensure that the Pre-Construction Meeting Agreement is scheduled and conducted.	City Project Engineer, designated construction inspector, and Project Archeologist.		
CUL-3	On-site Monitoring. A qualified archeological monitor and a tribal monitor shall be present for ground-disturbing activities. At least seven business days prior to project grading, the City shall contact the Consulting Tribe(s) and archeologist to notify them of grading/excavation and the schedule, and to coordinate with the Tribe and archeologist on the work schedule. Both the archeologist and the tribal monitor(s) shall have the authority to stop and redirect grading activities to evaluate the nature and significance of any archeological resources discovered within the Area of Potential Effect (APE).	The City Project Engineer shall ensure that contact is made, and information provided.	City Project Engineer, designated construction inspector, and Project Archeologist.		
CUL-4	Unique Discovery Clause. If, during ground disturbance activities, unique cultural resources are discovered that were not assessed by the archeological report(s) and/or environmental assessment conducted prior to project approval, the following procedures shall be followed. Unique cultural resources are defined, for this condition only, as being multiple artifacts in close association with each other but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance as determined in consultation with the Consulting Tribe(s). i. All ground disturbance activities within 100 feet of the discovered cultural resources shall be halted until a meeting is convened between the contractor, the archeologist, the tribal representative(s) and the City to discuss the significance of the find.	The City Project Engineer shall ensure the information is provided to monitor(s).	City Project Engineer, designated construction inspector, and Project Archeologist.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>ii. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representative(s) and the archeologist, a decision shall be made, with the concurrence of the City, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.</p> <p>iii. Grading or further ground disturbance shall not resume within the area of the discovery until an agreement has been reached by all parties as to the appropriate mitigation. Work shall be allowed to continue outside of the buffer area and will be monitored by additional Tribal monitors if needed.</p> <p>iv. Treatment and avoidance of the newly discovered resources shall be consistent with the mitigation measures for the project. This may include avoidance of the cultural resources through project design, in-place preservation of cultural resources located in native soils and/or re-burial on the Project property, so they are not subject to further disturbance in perpetuity as identified in Non-Disclosure of Reburial Condition.</p> <p>v. If the find is determined to be significant and avoidance of the site cannot be achieved, a Phase III data recovery plan shall be prepared by the project archeologist, in consultation with the Tribe, and shall be submitted to the City for their review and approval prior to implementation of the said plan. vi. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources and cultural resources. If the landowner and the Tribe(s) cannot agree on the significance or the appropriate mitigation for the archaeological or cultural resources, these issues will be presented to the City Planning Director for decision. The City Planning Director shall make the determination based on the provisions of the California Environmental Quality Act with respect to archeological resources, recommendations of the project archeologist and shall take into account the cultural and religious principles and practices of the Tribe. Notwithstanding any other rights available under the law, the decision of the City shall be appealable to the Planning Commission and/or City Council.</p>				
CUL-5	<p>Disposition of Cultural Resources. In the event that Native American cultural resources are discovered during grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries: a) One or more of the following treatments, in order of preference, shall be employed with the tribes: i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources. ii. Reburial of the resources on the Project property. The measures for reburial shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Measures and provisions to protect the future reburial area from any future impacts in perpetuity. • Reburial shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. • Any reburial process shall be culturally appropriate. • Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under confidential cover and not subject to Public Records Request. iii. If preservation in place or reburial is not feasible then the resources shall be curated in a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic 	The City Project Engineer shall ensure compliance.	City Project Engineer, designated construction inspector, and Project Archeologist.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner City to the City Consulting Tribe(s). There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.</p>				
CUL-6	<p>Ownership of Resources. The City shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts that are found within the project area, for proper treatment and disposition pursuant to the Agreement required in mitigation measure CUL-1 and CUL-5.</p>	The City Project Engineer shall ensure compliance.	City Project Engineer		
CUL-7	<p>Human Remains. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the NAHC must be contacted within 24 hours. The NAHC must then immediately identify the most likely descendant(s) for purposes of receiving notification of discovery. The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.</p>	The City Project Engineer shall ensure that contact is made and information provided.	City Project Engineer		
GEOLOGY AND SOILS					
GEO-1	<p>Site-specific Geotechnical Investigation. A site-specific geotechnical investigation shall be completed prior to final site design approval by the City to identify site-specific criteria related to considerations such as grading, excavation, fill, and structure/facility design. All applicable results and recommendations from the geotechnical investigation will be incorporated into the project design and construction documents to address identified potential geologic and soil hazards, including but not necessarily limited to: (1) seismic hazards including ground rupture, ground acceleration (ground shaking), soil liquefaction (and related issues such as dynamic settlement and lateral spreading), landslides/slope instability, and seiche effects; and (2) non-seismic hazards including manufactured slope instability, subsidence/compressible soils, expansive or corrosive soils, and trench/excavation instability. The final project design and construction documents will also encompass applicable standard design and construction practices from established regulatory/ industry sources including the California Building Code (CBC), International Building Code (IBC), California Geological Survey (CGS), Greenbook standards, as well as the results/recommendations of geotechnical review and field observations/testing to be conducted during project excavation, grading, and construction activities (with all related requirements to be included in applicable engineering/design drawings and construction contract specifications).</p>	The City Project Engineer shall ensure that results of the investigation are incorporated into final design plans.	The City Project Engineer and designated construction inspector shall ensure compliance.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
PAL-1	<p>Paleontological Resource Monitoring and Mitigation Plan. Prior to final site design, paleontological resource monitoring and mitigation plan (PRMMP) shall be prepared. The PRMMP shall provide:</p> <ul style="list-style-type: none"> • detailed recommended monitoring locations (as described in MM PAL-2); • a description of a worker paleontological resource awareness program to inform construction personnel of the potential for fossil discoveries and of the types of fossils that may be encountered; • detailed procedures for monitoring, fossil recovery, laboratory analysis, and museum curation; and notification procedures in the event of a fossil discovery (as described in MM PAL-3). 	The City Project Engineer shall ensure that the plan requirements are incorporated into final design plans.	The City Project Engineer and designated construction inspector shall ensure compliance.		
PAL-2	<p>Construction Monitoring. Full-time monitoring shall be required for all ground disturbances exceeding 2 feet below ground surface (bgs) in the Project area; no monitoring is required in areas where ground disturbance is less than 2 feet bgs. Monitoring shall entail the visual inspection of excavated or graded areas and trench sidewalls. If a paleontological resource is discovered, the monitor will have the authority to temporarily divert construction equipment within a 100-foot radius of the discovery until it is assessed for scientific significance and collected. Monitoring efforts can be reduced or eliminated at the discretion of the Project Paleontologist if no fossil resources are encountered after 50 percent of the excavations are completed, or if buried crystalline bedrock, which has no paleontological resource potential, is encountered at depth within the area of excavation.</p>	The City Project Engineer shall ensure incorporation of this requirement into the PRMMP.	The City Project Engineer and designated construction inspector shall ensure compliance.		
PAL-3	<p>Fossil Preparation, Curation, and Reporting. All significant fossils collected during fieldwork shall be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation shall include the careful removal of excess matrix from fossil materials and stabilization and repair of specimens, as necessary. Following laboratory work, all fossil specimens shall be identified to the lowest taxonomic level, cataloged, analyzed, and prepared for curation. Fossil specimens shall be submitted for permanent curation in a museum repository approved by the City. At the conclusion of laboratory work and curation, a final report shall be prepared to describe the results of the paleontological inventory and evaluation. The report shall include an overview of the Project area geology and paleontology, a description of the field and laboratory methods, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If fossils are collected and prepared for curation.</p>	The City Project Engineer shall ensure incorporation of this requirement into the PRMMP.	The City Project Engineer and designated construction inspector shall ensure compliance.		
HYDROLOGY / WATER QUALITY					
WR-1	<p>Stormwater Pollution Prevention. The project is subject to the Construction Stormwater General Permit Order 2022-0057-DWQ. As required by the conditions of the General Permit, a Storm Water Quality Pollution Prevention Plan (SWPPP) shall be prepared which includes provisions for the implementation of best management practices (BMPs) and a monitoring program. The following</p>	These measures shall be included in the project specifications and SWPPP.	The City project engineer and designated construction inspector shall ensure full implementation and compliance with these measures.		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<p>BMPs shall be incorporated into the SWPPP in order to minimize potential adverse water quality impacts:</p> <ul style="list-style-type: none"> • All ground disturbances shall be limited to the dry season or periods when rainfall is not predicted, in order to minimize erosion and sediment transport to surface waters. • Disturbed areas shall be stabilized or re-vegetated prior to the start of the rainy season. • Impacts to existing vegetation shall be minimized. Work areas shall be flagged to identify limits of construction activity. Vegetation shall not be removed or intentionally damaged beyond these limits. • Construction materials and stockpiles shall be placed in designated areas which prevent them from entering drainage channels or storm drains due to spillage or erosion. • Trash, waste and debris generated during construction shall be stored in designated waste collection areas, and where appropriate, in containers. All trash; waste and debris onsite shall be subject to regular monitoring and removed off-site to approved disposal locations as necessary. • All fueling and maintenance of equipment and vehicles shall occur in designated area(s) isolated from drainages such that spillage is prevented from entering surface waters. Designated area(s) shall contain drain pans, drop cloths, and absorbent materials to contain, and clean up spills. • Any accidental spill of hydrocarbons or coolant on the construction site shall be cleaned immediately. Absorbent materials shall be maintained onsite for this purpose. The Regional Board shall be notified immediately in the event of an accidental spill to ensure proper clean up and disposal of waste. 				
NOISE					
NOI-1	<p>Construction Noise Management Plan. A Construction Noise Management Plan shall be required to ensure that noise levels from project-related construction activities do not exceed the noise limits specified in Section 16.30.130 of the City of Murrieta Municipal Code for mobile and stationary construction equipment, when measured at:</p> <ol style="list-style-type: none"> 1. the boundary line of the property where the noise is located; or 2. any occupied property where noise is being received. The Plan shall include the following measures to reduce construction noise: <ul style="list-style-type: none"> • Construction equipment to be properly outfitted and maintained with manufacturer recommended noise-reduction devices. • Diesel equipment to be operated with closed engine doors and equipped with factory recommended mufflers. 	<p>The Construction Noise Management Plan shall be included on construction plans to ensure compliance with noise limits.</p>	<p>The City Project Engineer and designated construction inspector shall ensure compliance.</p>		

Mitigation Measure		Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
				Initials	Date
	<ul style="list-style-type: none"> • Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) to be equipped with shrouds and noise control features that are readily available for that type of equipment. • Electrically powered equipment to be used instead of pneumatic or internal combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (e.g., more than 5 minutes) to be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise-sensitive receptors. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. • No project-related public address or music system shall be audible at any adjacent sensitive receptor. • Temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7 to 8 feet above ground, sound walls at least 10 feet in height above grade shall be installed as necessary, to block the line-of-sight between project construction activities and sensitive noise receivers. These barriers would mitigate noise levels to within acceptable levels. To effectively reduce noise levels, the sound barrier should be constructed of a material with an STC rating of 22 or 23 with no gaps or perforations and remain in place until the conclusion of demolition, grading, and construction activities. • All residences within 100 feet of the project shall be notified in writing within one week of any noise-generating activity, including, but not limited to demolition, concrete sawing, asphalt removal, and/or heavy grading operations. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure. • The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established before construction commencement to allow for the resolution of noise problems that cannot be immediately solved by the site supervisor. 				
NOI-2	Vibratory Roller Usage Limits. Vibratory rollers shall be used in static mode only (no vibrations) when operating within 40 feet of any occupied residence.	The vibratory roller model, size, and operating mode restrictions shall be specified on all grading and construction permits.	The City Project Engineer and designated construction inspector shall ensure compliance.		
TRIBAL CULTURAL RESOURCES					
TCR-1	Tribal Consultation Process. At least 30 days prior to the start of any ground-disturbing activities, the City shall obtain written confirmation from the Consulting Tribe(s) that the consultation process has been completed to their mutual satisfaction. Plan Requirements/Timing: The City Project Engineer				

Mitigation Measure	Monitoring/ Mitigation Timing	Responsible for Monitoring	Verification of Compliance	
			Initials	Date
shall ensure that the Tribal Consultation process is conducted and completed. Monitoring: The City Project Engineer and designated construction inspector shall ensure compliance.				

ENVIRONMENTAL HEARING OFFICER DETERMINATION

DETERMINATION:

On the basis of this initial evaluation (check one):

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

CERTIFICATION:

Prepared by:



John Karamitsos, Kleinfelder, Inc.

Reviewed by:

Hitch, Jeff

Digitally signed by Hitch, Jeff
DN: CN="Hitch, Jeff",
OU=Engr-OU, OU=CityHall-OU,
OU=AllCity-OU, DC=CityHall,
DC=Murrieta, DC=org
Date: 2026.03.04 18:19:53-08'00'

Jeff Hitch, City of Murrieta

APPENDIX 1
Madison Avenue Street Improvements, Traffic Impact Analysis,
City of Murrieta (RICK Engineering Company, July 15, 2025)

APPENDIX 2
Madison Avenue Street Improvements Project, General Biological Resources
Assessment and Western Riverside County Multiple Species Habitat
Conservation Plan Consistency Analysis
(HELIX Environmental Planning, Inc., November 2025)

APPENDIX 3

a. Paleontological Resources Assessment for the Madison Avenue Improvements Project (Applied Earthworks, September 2018)

b. Paleontological Resource Revalidation Memorandum for the Madison Avenue Improvement Project (Applied Earthworks, June 14, 2024)

APPENDIX 4

**a. Phase I Cultural Resource Assessment for Madison Avenue Improvement Project
(Applied Earthworks, September 2018)'**

**b. Cultural Resource Revalidation Memorandum (Applied EarthWorks,
May 16, 2024)**

APPENDIX 5
Acoustical Analysis Report
(HELIX Environmental Planning, Inc., May 2024)

APPENDIX 6
Air Quality and Greenhouse Gas Emissions Impact Assessment
(HELIX Environmental Planning, Inc. 05/06/24)

APPENDIX 7
Reserved (Not Included)

APPENDIX 8
Preliminary Drainage Study for Madison Avenue Improvement Project From
Guava Street to Elm Street
(RICK Engineering Company, March 6, 2024)

APPENDIX 9
CUMULATIVE PROJECTS
a. Non-residential Map and List

b. Residential Map and List
