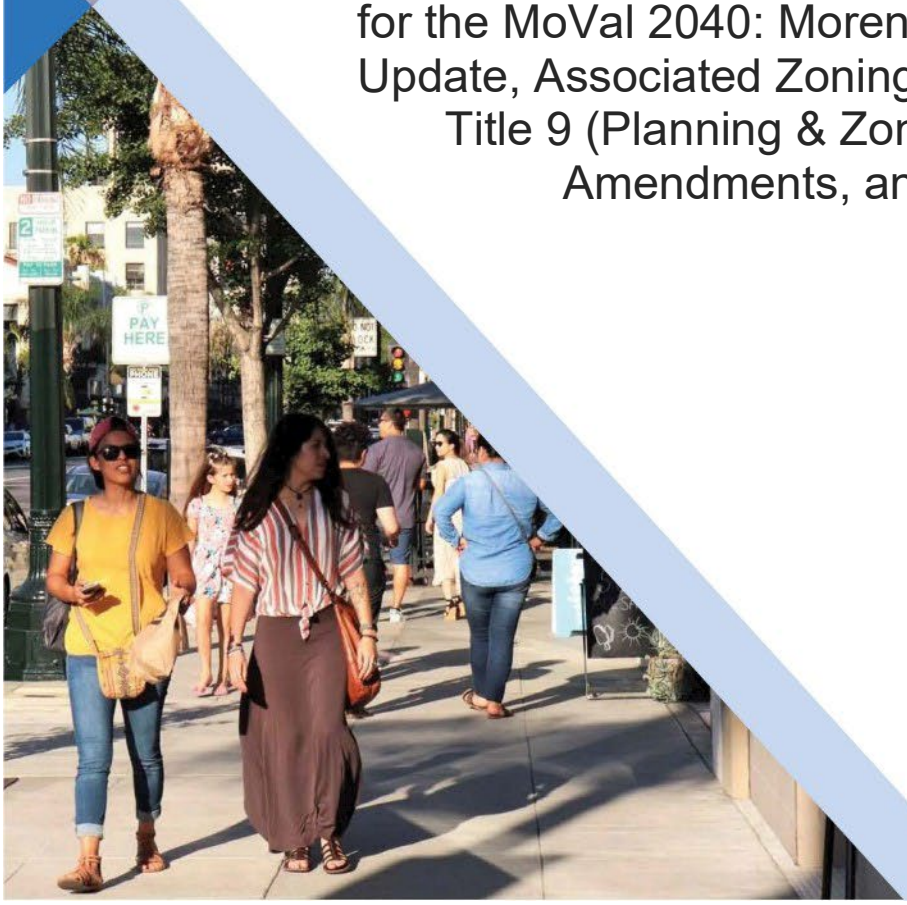




MORENO VALLEY
WHERE DREAMS SOAR

City of Moreno Valley

Revised Draft Program Environmental Impact Report for the MoVal 2040: Moreno Valley General Plan Update, Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan

SCH # 2020039022

Public Review Draft
July 7, 2025

Revised Draft Program Environmental Impact Report for the MoVal 2040: Moreno Valley General Plan Update, Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan
SCH # 2020039022

Prepared for
City of Moreno Valley
Community Development Department
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley CA 92552-0805
P 951.413.3206

Prepared by
Kimley-Horn and Associates, Inc.
660 South Figueroa Street, Suite 2100
Los Angeles, CA 90017
P 213.261.4040

July 7, 2025

TABLE OF CONTENTS

List of Abbreviations/Acronyms vi

Executive Summary S-1

1.0 Introduction 1-1

1.1 Project Background 1-1
1.2 Type of EIR 1-1
1.3 List of Project Approvals 1-3
1.4 Statement of Legal Authority 1-3
1.5 Responsible/Trustee Agencies 1-3
1.6 Scope of the Revised Draft EIR 1-5
1.7 Incorporation by Reference 1-7

2.0 Environmental Setting 2-1

2.1 Planning Context 2-1
2.2 Existing Physical Site Conditions 2-13

3.0 Project Description 3-1

3.1 Statement of Objectives 3-2
3.2 Project's Component Parts 3-4
3.3 Intended Uses of the EIR 3-23
3.4 Related Environmental Review and Consultation Requirements 3-24
3.5 Documents Incorporated by Reference 3-24

4.0 Environmental Analysis 4-1

4.1 Aesthetics 4.1-1
4.2 Agriculture and Forestry Resources 4.2-1
4.3 Air Quality 4.3-1
4.4 Biological Resources 4.4-1
4.5 Cultural and Tribal Cultural Resources 4.5-1
4.6 Energy 4.6-1
4.7 Geology/Soils 4.7-1
4.8 Greenhouse Gas Emissions 4.8-1
4.9 Hazards & Hazardous Materials 4.9-1
4.10 Hydrology/Water Quality 4.10-1
4.11 Land Use/Planning 4.11-1
4.12 Mineral Resources 4.12-1
4.13 Noise 4.13-1
4.14 Population/Housing 4.14-1
4.15 Public Services and Recreation 4.15-1
4.16 Transportation 4.16-1
4.17 Utilities/Service Systems 4.17-1

4.18 Wildfire 4.18-1

5.0 CEQA Mandated Analysis 5-1

5.1 Significant Environmental Effects Which Cannot Be Avoided if the Project is Implemented 5-2

5.2 Significant Irreversible Environmental Changes Which Would Result if the Project is Implemented 5-2

5.3 Growth Inducement 5-3

5.4 Conclusion 5-6

6.0 Project Alternatives 6-1

6.1 Selection of Alternatives 6-2

6.2 Comparison of Impacts 6-3

6.3 No Project Alternative 6-4

6.4 Reduced Growth Alternative 6-13

6.5 Redistributed Growth Alternative 6-21

6.6 Environmentally Superior Alternative 6-29

7.0 EIR References 7-1

7.1 Persons Involved in the Preparation of the EIR 7-1

7.2 Documents Incorporated by Reference 7-2

7.3 Documents and Websites Consulted 7-2

FIGURES

2-1: Regional Location 2-3
2-2: Planning Area 2-4
2-3: Existing General Plan Land Use 2-15
3-1: General Plan Update Concept Areas 3-9
3-2: General Plan Update Proposed Land Use Map 3-14
4.2-1: FMMP Important Farmlands 4.2-3
4.2-2: FMMP Important Farmlands Impacts 4.2-8
4.4-1: Vegetation Communities 4.4-2
4.4-2: MSHCP Covered Species, CNDDB and USWFS Species 4.4-8
4.4-3: MSHCP Covered Lands and Criteria Cells 4.4-17
4.4-4: Stephens' Kangaroo Rat Core Reserve Area 4.4-19
4.4-5: San Jacinto Wildlife Area 4.4-21
4.4-6: Vegetation Communities Impacts 4.4-30
4.4-7: MSHCP Covered and USWFS Species Observations 4.4-32
4.5-1: Historic Resources 4.5-15
4.5-2: Archaeological Sensitive Areas 4.5-41
4.7-1: Fault Zones 4.7-2
4.7-2: Liquefaction 4.7-4
4.7-3: Landslides 4.7-7
4.7-4: Paleontological Sensitivity 4.7-8
4.9-1: Hazardous Materials Sites 4.9-3

FIGURES (cont.)

4.9-2: Airport Compatibility Zones 4.9-6
4.9-3: Compatibility Zone Factors....4.9-7
4.10-1: Watersheds....4.10-2
4.10-2: Existing Storm Water Facilities 4.10-4
4.10-3: FEMA Floodplains and Floodway....4.10-6
4.10-4: Groundwater 4.10-7
4.11-1: Existing Land Use....4.11-2
4.11-2: Distribution of Retail Centers and Business Parks 4.11-7
4.12-1: Mineral Resource Zones....4.12-3
4.13-1: Existing Noise Sensitive Receptors 4.13-3
4.13-2: Noise Measurement Locations....4.13-8
4.13-3: Existing Traffic Noise Contours 4.13-11
4.13-4: March Air Reserve Base Compatibility Zone Map 4.13-4
4.13-5: MARCH Air Reserve Base Noise Contours 4.13-13
4.13-6: MARCH Air Reserve Base Influence Area Noise Contours 4.13-14
4.13-7: Future Traffic Noise Contours....4.13-37
4.13-8: 2040 Project Noise Sensitive Receptors Map 4.13-38
4.15-1: Public Facilities....4.15-3
4.15-2: Existing and Planned Parks and Recreation Facilities 4.15-15
4.15-3: Park Service Areas 4.15-24
4.16-1: Existing and Planned Bicycle and Pedestrian Network 4.16-7
4.16-2: Transit Lines and Facilities....4.16-10
4.16-3: Proposed Circulation Network....4.16-16
4.18-1: California Fire Hazard Severity Zone 4.18-2
4.18-2: CAL FIRE Fire Threat Areas 4.18-4
6-1: Growth Reducing Alternative....6-13
6-2: Redistributed Growth Alternative....6-21

TABLES

S-1: Summary of Environmental Impacts S-9
2-1: Existing Land Uses in Planning Area 2-16
3-1: 2040 Horizon Year Land Use Summary....3-13
3-2: Growth Projections for Moreno Valley 3-22
3-3: Citywide Buildout Summary 3-23
4.2-1: Acres of FMMP Farmland within the Planning Area 4.2-5
4.2-2: Acreage of Maximum Impacts to FMMP Farmland within Concept Areas 4.2-7
4.3-1: Summary of Air Quality Measurements Recorded at Perris and Riverside – Rubidoux Monitoring Stations 4.3-2
4.3-2: Air Contaminants and Associated Public Health Concerns 4.3-4
4.3-3: Ambient Air Quality Standards....4.3-8
4.3-4: South Coast Air Quality Management District Emissions Thresholds....4.3-18
4.3-5: Moreno Valley Localized Significance Thresholds Within 25 Meters of Sensitive Receptors 4.3-18
4.3-6: SCAQMD Incremental Risk Thresholds for TACs....4.3-19
4.3-7: Comparison of Population and Employment Forecast 4.3-21

4.3-8: Project Construction Criteria Pollutant Emissions 4.3-24
4.3-9: Operational Criteria Pollutant Emissions 4.3-26
4.3-10: Carcinogenic Risk Assessment 4.3-29
4.3-11: Chronic Hazard Assessment....4.3-32
4.4-1: Vegetation Communities and Land Cover Types within Moreno Valley 4.4-3
4.4-2: Sensitive Plant Species Observed or Potentially Occurring within the Moreno Valley Planning Area 4.4-9
4.4-3: Sensitive Wildlife Species Observed or Potentially Occurring within the Moreno Valley Planning Area 4.4-12
4.4-4: Acreage of Maximum Impacts to Vegetation Communities within Concept Areas 4.4-29
4.5-1: List of Historic Resources and their Eligibility Status 4.5-9
4.5-2: List of Archaeological Resources and their Eligibility 4.5-17
4.6-1: Southern California Edison and Moreno Valley Utility Power Content Label ...4.6-2
4.6-2: Residential and Nonresidential Electricity Consumption for Riverside County ..4.6-3
4.6-3: 2022 Electricity Consumption 4.6-3
4.6-4: 2024 SCE Electricity Consumption 4.6-4
4.6-5: Existing Citywide Electricity Demand 4.6-4
4.6-6: Residential and Nonresidential Natural Gas Consumption for Riverside County 4.6-5
4.6-7: Existing Citywide Natural Gas Demand....4.6-6
4.6-8: 2024 Transportation Fuel Consumption 4.6-6
4.6-9: Existing Citywide Transportation Fuel Consumption....4.6-6
4.6-10: 2024 GPU Buildout Transportation Fuel Consumption 4.6-17
4.6-11: Moreno Valley Existing and Future Annual Electricity and Natural Gas Use 4.6-18
4.7-1: Liquefaction Susceptibility Classification Acreages 4.7-3
4.7-2: History of Major Southern California Earthquakes Since 1992....4.7-10
4.8-1: Description of Greenhouse Gases 4.8-2
4.8-2: Global Warming Potentials and Atmospheric Lifetimes 4.8-4
4.8-3: California GHG Emissions by Sector in 1990, 2010, 2018, 2022....4.8-5
4.8-4: Moreno Valley GHG Emissions in 2024 ....4.8-6
4.8-5: Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan 4.8-11
4.8-6: Moreno Valley GHG Emissions Inventories and Efficiency Metrics without CAP Measures 4.8-30
4.8-7: GHG Targets and Predicted Consistency without CAP Measures 4.8-30
4.8-8: CAP GHG Reduction Measures....4.8-32
4.8-9: 2024 GPU GHG Emissions Reduction Pathway 4.8-33
4.9-1: Active Envirostor and Geotracker Hazardous Materials Sites....4.9-4
4.10-1: FEMA Floodplains/Floodways within the Planning Area 4.10-3
4.12-1: Acreage of Mineral Resource Zones within the Planning Area 4.12-3
4.13-1: Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations 4.13-5
4.13-2: Existing Noise Measurement Locations and Measurements....4.13-7
4.13-3: Guidelines for Determining the Significance of Ground-borne Vibration and Noise Impacts 4.13-17
4.13-4: Maximum Continuous Sound Levels....4.13-21
4.13-5: Maximum Impulsive Sound Levels 4.13-22
4.13-6: Maximum Sound Levels for Source Land Uses....4.13-22

4.13-7: Land Use Community Noise Compatibility 4.13-25
4.13-8: Roadway Segments with Potentially Significant Traffic Noise Increases..... 4.13-29
4.13-9: Typical Construction Equipment Noise Levels 4.13-43
4.13-10: Typical Vibration Levels for Construction Equipment 4.13-45
4.14-1: SCAG Growth Projections for Moreno Valley 4.14-1
4.14-2: Citywide Buildout Summary 4.14-5
4.14-3: Comparison of 2040 SCAG to Project 4.14-6
4.15-1: MVFD Stations, Locations, and Equipment..... 4.15-2
4.15-2: Capital Improvement Plan - Fire Department Projects..... 4.15-4
4.15-3: MVPD Response Times..... 4.15-5
4.15-4: Moreno Valley Unified School District 4.15-7
4.15-5: MVUSD Student Generation Rates..... 4.15-8
4.15-6: Public School District Enrollment Trends..... 4.15-9
4.15-7: Val Verde Unified School District..... 4.15-10
4.15-8: Existing and Planned Parks and Recreation Facilities 4.15-12
4.16-1: Counties Where Moreno Valley Residents are Employed..... 4.16-3
4.16-2: Commuter Modal Split..... 4.16-4
4.16-3: Vehicle Miles Traveled Summary..... 4.16-5
4.16-4: RIVCOM Model Inputs for General Plan Scenarios 4.16-28
4.16-5: VMT Summary..... 4.16-31
4.17-1: Existing Landfills and Capacity 4.17-5
4.18-1: Fire Hazard Severity Zone Acreages 4.18-3
4.18-2: Fire Threat Area Acreages 4.18-3
4.18-3: History of Fire in Moreno Valley and Surrounding Areas 4.18-5
6-1: Matrix Comparison of the Project to Alternatives 6-3

APPENDICES

A: Revised Draft Program EIR Notice of Preparation, Scoping Meeting Materials, and NOP Comments
B: Air Quality Impact Assessment
C-1: 2021 Tribal Letters and Responses
C-2: 2024 Tribal Letters
D: Noise and Vibration Assessment
E: VMT Assessment
F: Energy Calculations
G: Methodology for Establishing the Environmental Baseline and Horizon Year Forecast
H: Health Effects and Health Risk Assessment
I: Strikethrough Version of the Revised Draft Program EIR

List of Abbreviations/Acronyms

°F	degrees Fahrenheit
μg/m^3	micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ADP	area drainage plans
ADT	Average Daily Traffic
AEP	Association of Environmental Professionals
AF	acre-feet
AFFH	Affirmatively Furthering Fair Housing
AFV	Alternative fuel vehicles
AIA	Airport Influence Area
AICUZ	Air Installation Compatibility Use Zone
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMI	Area Median Income
AQMP	air quality management plan
ATMS	Advanced Traffic Management System
AV	autonomous vehicle; assessed value
Basin	South Coast Air Basin
Basin Plan	Regional Water Quality Control Board - Santa Ana Region Basin Plan
BAU	business as usual
BEP	Business Emergency Plan
BMP	best management practice
BSMWC	Box Springs Mutual Water Company
BUG	backlight, up light, and glare
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalGem	California Geologic Energy Management Division
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board

CBC	California Building Code
CCR	California Code of Regulations
CCTV	closed circuit television
CDC	California Department of Conservation
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEMU	Center Mixed Use
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERT	Community Emergency Response Team
CESA	California Endangered Species Act
CETAP	Community and Environmental Transportation Acceptability Process
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CH^4	Methane
CIP	Capital Improvement Project
City; city	City of Moreno Valley
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Plan
CMS	Congestion Management System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
COMU	Corridor Mixed Use
county	county of Riverside
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
CRA	Colorado River Aqueduct
CREATE	Chicago Rail Efficiency and Transportation Efficiency
CRGP	County of Riverside General Plan
CRHR	California Register of Historic Resources
CRMP	Cultural Resources Management Plan (CRMP)
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dB(A)	A-weighted decibel
DIF	Development Impact Fee
DMS	Dynamic Message Signs
DOORS	Diesel Off-Road Online Reporting System
DOT	Department of Transportation
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources

ECSD	Edgemont Community Services District
EIC	Eastern Information Center
EIR	Environmental impact report
EJ	environmental justice
EMFAC	Emission Factor Model
EMS	Emergency Medical Services
EMWD	Eastern Municipal Water District
EO	Executive Order
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EV	electric vehicles
FAA	Federal Aviation Administration
FAR	floor area ratio
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHSV	Fire Hazard Severity Zone
FHSZs	Fire Hazard Severity Zones
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
FPP	fire protection plan
FRA	Federal Railroad Administration
FTA	Federal Transit Authority
GHG	greenhouse gas
GIS	geographic information system
GPAC	General Plan Advisory Committee
GPU	General Plan Update
GWh	gigawatt hour
GWP	global warming potential
HB-P	home-based production
HBW-A	home-based-work attraction
HCP	Habitat Conservation Plan
HEHRA	Health Effects and Health Risk Assessment
HMBEP	Hazardous Materials Business Emergency Plan
HMERT	Hazardous Materials Response Team
HMMA	Hazardous Materials Management Act
HOT	High occupancy toll
HOV	high occupancy vehicle
HRA	Health Risk Assessment
HUD	U.S. Department of Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
HWCL	Hazardous Waste Control Law
Hz	Hertz
I-215	Interstate 215
ICLEI	International Council for Local Environmental Initiatives
IGP	Industrial General Permit
in/sec	inch per second
IPA	Inland Port Airport

IRP	Integrated Resource Plan
ITS	Intelligent Transportation Systems
ITS	Incidental Take Statement
kWh	kilowatt hours
LCC	Land Use and Community Character
LD	Logistics Development
LDV	light-duty vehicles
L_{eq}	hourly equivalent sound level
LHMP	Local Hazard Mitigation Plan
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum sound level
LOS	Level of Service
LRA	Local Responsibility Area
LST	Localized Significance Threshold
LUCC	Land Use and Community Character
MARB	March Air Reserve Base
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MDP	master drainage plan
MLD	Most Likely Descendent
MMRP	Mitigation and Reporting Program
MMT CO_2E	million metric tons of carbon dioxide equivalent
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
MT CO_2E	metric tons of carbon dioxide equivalent
Municipal Code	City of Moreno Valley Municipal Code
MVC	Moreno Valley College
MVFD	Moreno Valley Fire Department
MVPD	Moreno Valley Police Department
MVU	Moreno Valley Electric Utility
MVUSD	Moreno Valley Unified School District
MW	Megawatts
MWD	Metropolitan Water District of Southern California
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NHTSA	National Highway and Transportation Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System

NRHP	National Register of Historic Places
NZE	near zero emission
OD	Origin/Destination
OEM	Office of Emergency Management
OPSC	Office of Public School Construction
OSRC	Open Space and Resource Conservation
O_3	Ozone
PA	Production/Attraction
Pb	lead
PCE	tetrachloroethylene
PM10	particulate matter less than 10 microns in diameter
PM2.5	particulate matter less than 2.5 microns in diameter
PPM	Parts Per Million
PPV	peak particle velocity
PRC	Public Resources Code
Project	MoVal 2040 Project EIR
PV	photovoltaic
PVL	Perris Valley Line
RA2	Residential Agriculture 2
RCFC&WCD	Riverside County Flood Control District and Water Conservation District
RCFD	Riverside County Fire Department
RCHCA	Riverside County Habitat Conservation Agency
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
REL	Reference Exposure Level
RFS	Renewable Fuel Standard Program
RHNA	Regional Housing Needs Allocation
RIVCOM	Riverside Country Transportation Model
RMP	Risk Management Plan
ROG	Reactive Organic Gases
ROW	right-of-way
RPS	Renewable Portfolio Standard
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/ Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
RWRF	regional water reclamation facility
SAFE	Safer Affordable Fuel Efficient
SAR	Santa Ana Region
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCIC	South Coastal Information Center
SCRRA	Southern California Regional Rail Authority
SCS	Sustainable Communities Strategy
SDSU	San Diego State University

SGMA	Sustainable Groundwater Management Act
SHMA	Seismic Hazard Mapping Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
SMBMI	San Manuel Band of Luiseño Indians
SO_2	sulfur dioxide
SOI	Sphere of Influence
SJBL	San Jacinto Branch Line
SJWA	San Jacinto Wildfire Area
SP	Service Population
SR 60	State Route 60
SRA	State Responsibility Area
SRRE	Source Reduction and Recycling Element
SSMP	Sewer System Management Plan
State Water Board	California State Water Resources Control Board
SWP	State Water Project
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TCE	trichloroethylene
TCPs	Traditional Cultural Properties
TCRs	tribal cultural resources
TDM	Transportation Demand Management
TIA	Transportation Impact Assessment
TMC	Traffic Management Center
TMC	Transportation Management Center
TRI	Toxics Release Inventory
TSM	Transportation System Management
TUMF	Transportation Uniform Mitigation Fee
UCR	University of California, Riverside
URM	unreinforced masonry
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
VdB	vibration decibel
VMT	vehicle miles traveled
VOC	volatile organic compounds
VVUSD	Val Verde Unified School District
WLC	World Logistics Center
WMWD	Western Municipal Water District
WPLT	Western Pluvial Lakes Tradition
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRCRCA	Western Riverside County Regional Conservation Authority
WWI	World War I

ZE	zero emission
ZEV	Zero-emission vehicle

Executive Summary

NOTE TO READERS: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of the Executive Summary, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

S.1 Introduction

In June 2021 and August 2021, the MoVal 2040 Project and Final Environmental Impact Report (EIR) (2021 Final PEIR) were approved and certified, respectively, by the City of Moreno Valley City Council. A lawsuit by the Sierra Club argued that the 2021 Draft EIR and Final PEIR were deficient. On March 5, 2024, a Statement of Decision by a judge of the Riverside County Superior County granted the petition on the issues of baseline (existing conditions analysis), air quality, climate change (GHG emissions), and energy use. This document, referred to as the MoVal 2040 Revised Draft Program EIR (Revised Draft EIR) has been prepared to correct the deficiencies identified in the March ruling. Those portions of the 2021 Final PEIR that were found to be in compliance with CEQA will not be circulated and no further comments on them will be sought. Responses to comments on the Revised Draft EIR will be prepared.

The revised sections of the Revised Draft EIR have been prepared to address the deficiencies identified in the court's ruling, summarized as follows:

- Air quality: The air quality section failed to compare the MoVal 2040 Project's environmental impacts against existing conditions and instead compared them to assumed impacts under the former General Plan, which understated the impacts from the present Project;
- Energy: The energy section failed to compare the MoVal 2040 Project's environmental impacts against existing conditions and instead compared them to assumed impacts under the former General Plan, which understated the impacts from the present Project;
- Greenhouse Gas (GHG) Emissions

In addition, although not required by the Court ruling, the following analysis has been updated or newly prepared to assist in the response to the deficiencies identified by the Court:

- Noise
- Transportation

Consistent with Section 15168 of the California Environmental Quality Act (CEQA) Guidelines, this Revised Draft EIR provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, actions, and projected buildout of the following three planning documents:

- 2024 General Plan Update (GPU),
- Municipal Code and Zoning (including Zoning Atlas) Amendments, and
- Climate Action Plan (CAP)

These three separate planning documents are collectively referred to as the MoVal 2040 Revised Draft EIR (Project).

As described in Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria. The Project which is the subject of this Revised Draft EIR consists of long-term plans that will be implemented as policy documents guiding future development activities and related City of Moreno Valley (City) actions. The purpose of this Revised Draft EIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of the Project. This Revised Draft EIR also considers the availability of mitigation measures to minimize the Project's significant impacts and evaluates reasonable alternatives to the Project that may reduce or avoid one or more significant environmental effects.

A brief overview of each Revised Draft EIR chapter is provided below:

Executive Summary: Summarizes the Revised Draft EIR by providing an overview of the Project, analysis of the potentially significant environmental impacts that could result from the implementation of the 2024 GPU, a list of mitigation measures identified to reduce or avoid such impacts, a review of the alternatives to the 2024 GPU, including the identification of an environmentally superior alternative to the 2024 GPU.

1.0 Introduction: Provides an overview of the applicable legal authority, introduces the purpose for the Revised Draft EIR and explains the Revised Draft EIR process and the intended uses of the Revised Draft EIR.

2.0 Environmental Setting: Provides a description of the 2024 GPU's regional context, location, and existing physical characteristics and land use within the Planning Area. More detailed descriptions of the environmental context pertaining to specific environmental topics are provided in each section of Chapter 4: Environmental Analysis.

3.0 Project Description: Provides a detailed description of the Project, including the purpose and objectives of the Project and descriptions of each component of the Project (2024 GPU, Associated Zoning Text Amendments to Title 9 [Planning & Zoning] and Zoning Atlas Amendments, and CAP).

4.0 Environmental Analysis. Analyzes the environmental impacts resulting from the implementation of the 2024 GPU. Impacts are organized by the following topic areas. Sections that have been modified as a result of the Ruling are denoted with an asterisk (*) below:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality*
4.4 Biological Resources
4.5 Cultural and Tribal Cultural Resources*
4.6 Energy*
4.7 Geology/Soils
4.8 Greenhouse Gas Emissions*
4.9 Hazards & Hazardous Materials
4.10 Hydrology/Water Quality
4.11 Land Use/Planning
4.12 Mineral Resources
4.13 Noise*
4.14 Population/Housing
4.15 Public Services and Recreation
4.16 Transportation*
4.17 Utilities/Service Systems
4.18 Wildfire

Each topic area respectively provides a contextual description of the 2024 GPU's environmental setting, significance criteria, methodology, and potential impacts.

5.0 CEQA Mandated Analysis: Summarizes the Project's significant and unavoidable environmental impacts, significant irreversible environmental changes, and growth-inducing impacts.

6.0 Project Alternatives: This chapter presents a reasonable range of alternatives to the 2024 GPU and includes the following:

- A discussion of the environmental impacts associated with each alternative.
- A comparison of the relative impacts of each alternative to those of the 2024 GPU.
- A discussion of the relationship of each alternative to the 2024 GPU's objectives, and
- Identification of the environmentally superior alternative.

7.0 EIR References: Lists documents and other information sources relied upon in the preparation of the Revised Draft EIR and identifies the persons and organizations that contributed to the preparation of the Revised Draft EIR.

S.2 Project Overview

The City of Moreno Valley (City) is located within the northwestern portion of Riverside County in the southern Inland Empire portion of the State of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of the city of Irvine, and 43 miles west of the city of Palm Springs. State Route 60 (SR 60), which runs through the northern portion of Moreno Valley (east and west direction), and Interstate 215 (I-215), which runs in proximity to the westerly City limits (north and south direction), serve to connect the city to other communities throughout the region. The City is accessible via public transportation by rail, through Metrolink located approximately one-half mile west of the City limits, and accessible via aircraft at the March Inland Port located at the March Air Reserve Base (MARB), which is located south and west of the City limits.

California Government Code Section 65300 et seq. mandates that all counties and cities prepare a general plan that establishes policies and standards for future development, housing affordability, and resource protection. State law encourages cities to keep general plans current through regular periodic updates. The Project includes an update to the 2006 General Plan that would guide future land use decisions in Moreno Valley, provide a long-term vision for the City, and provide policies and implementing actions that would allow the City to achieve this vision over the life of the 2024 GPU. The 2024 GPU is the primary policy document guiding growth and development within the City through the planning horizon year of 2040. Together with the Zoning Ordinance and related sections of the Municipal Code, the 2024 GPU would serve as the basis for planning-related decisions made by City staff, the Moreno Valley Planning Commission, and the Moreno Valley City Council.

The Project includes preparation of a CAP. The CAP is a community-wide strategy for reducing GHG emissions for the purpose of adapting to the effects of climate change. Preparation of the CAP includes establishing the City's GHG reduction targets as well as specific strategies and implementing actions to achieve these targets.

S.3 EIR Process

The Notice of Preparation (NOP) was circulated on July 30, 2024, and a scoping meeting was held on Wednesday, August 14, 2024 at the City Hall – Council Chambers, located on 14177 Frederick Street, Moreno Valley, California. The NOP circulated for analysis of the Project, related letters received, and comments made during the scoping meeting are included as Appendix A of this Revised Draft EIR. The Revised Draft EIR was circulated for public review for a period commencing July 7, 2025 through August 21, 2025 (Public Review Period). The Revised Draft EIR and all related appendices have been made available for public review and inspection during the Public Review Period at City Hall, located on 14177 Frederick Street, Moreno Valley, California, and on the Community Development Department's Current Projects webpage at:

http://www.moreno-valley.ca.us/cdd/documents/about-projects.html

Copies of the Notice of Availability of the Revised Draft EIR were also available at the City's three public library branches, located:

- Main Branch, located at 25480 Alessandro Boulevard
- Mall Branch located at 22500 Town Circle
- Iris Plaza Branch located at 16170 Perris Boulevard

S.4 Areas of Controversy

Environmental impacts classified as significant and unavoidable have been identified in the resource topics of Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural and Tribal Cultural Resources, Noise, and Transportation, which may be controversial to the general public, agencies, or stakeholders. Table S-1 lists significant and unavoidable impacts, summarizes the results of the impact analysis, and lists applicable mitigation measures.

S.5 Project Alternatives

CEQA Guidelines Section 15126.6 requires that the EIR compare the effects of a "reasonable range of alternatives" to the effects of the project. The CEQA Guidelines further specify that the project alternatives selected should attain most of the basic project objectives and avoid or substantially lessen one or more significant effects of the project. The "range of alternatives" is governed by the "rule of reason," which requires the EIR to set forth only those project alternatives necessary to permit an informed and reasoned choice by the City, as the Lead Agency, and to foster meaningful public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, while also taking into account economic, environmental, social, technological, and legal factors.

Project alternatives are evaluated in Chapter 6 of this Revised Draft EIR. The evaluations analyze the ability of each 2024 GPU alternative to further reduce or avoid the significant environmental effects resulting from the implementation of the 2024 GPU. Each major environmental topic that was determined to have significant impacts has been given consideration in the alternatives analysis. This Revised Draft EIR evaluates three 2024 GPU alternatives: the No Project Alternative (continuation of the existing 2006 General Plan), the Reduced Growth Alternative, and Redistributed Growth Alternative.

S.5.1 No Project Alternative

Under the No Project Alternative, the proposed amendments to the 2024 GPU, Municipal Code and Zoning (including Zoning Atlas) Amendments, and adoption of the CAP would not occur. Growth in the City would continue to be guided by the 2006 General Plan with the

2024 baseline in place.[1] Under the No Project Alternative, development would continue to occur through site-specific rezoning and General Plan amendment actions, rather than through a comprehensively planned approach. The planned densities needed to accommodate the region's housing needs and provide the required levels of affordability would not occur. Planning for mobility infrastructure would continue as it currently exists, without a comprehensive strategy intended to reduce reliance on vehicular travel and promote other forms of mobility.

S.5.2 Reduced Growth Alternative

The Reduced Growth Alternative would revise the proposed land use map to reduce the amount of employment growth compared to the 2024 GPU (see Figure 6-1). This alternative would reduce the maximum permitted floor area ratio (FAR) proposed within the Community Corridors along Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, and Heacock Street. This would reduce the amount of non-residential development within these Community Corridors by approximately 10 to 15 percent compared to the 2024 GPU. This alternative would also remove the proposed Center Mixed Use within the District Specific Plan area, and reduce the footprint of the Downtown Center Concept Area by approximately 111 acres. Additionally, a portion of the proposed Highway Office/Commercial Concept Area located north of SR 60 would not receive this new designation; instead, the existing office and residential land use designations from the 2024 baseline conditions would be retained.

S.5.3 Redistributed Growth Alternative

The Redistributed Growth Alternative would result in the same level of growth as the proposed plan, but would redistribute growth from the proposed Community Corridor Concept Areas to the Downtown Center Concept Area (see Figure 6-2). This alternative would reduce the maximum permitted density and intensity in the Community Corridor Concept Areas, thereby reducing future development proposed along Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, and Heacock Street by approximately 10 to 15 percent compared to the 2024 GPU. The reduced growth capacity from these areas would be redistributed to the Downtown Center Concept Area. This alternative would also remove a portion of the proposed Highway Office/Commercial Concept Area located north of SR 60 and the existing office and residential land use designations from the existing 2024 baseline conditions would be retained. Redistribution of land uses associated with this alternative would not alter the total amount of residential, commercial, and office land uses compared to the 2024 GPU. The Redistributed Growth Alternative also includes implementation of the Municipal Code and Zoning (including Zoning Atlas) Amendments, and CAP.

[1] The Aquabella project has been considered to be part of the No Project Alternative because its development, which will include 15,000 workforce dwelling units, was approved in December 2024, and includes an amendment to the 2006 General Plan.

S.5.4 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify the environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from the other alternatives. However, the Project itself may not be identified as the environmentally superior alternative.

The Reduced Growth Alternative is the environmentally superior alternative because it would have a lesser impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, energy, GHG emissions, noise, and transportation when compared to the 2024 GPU. Although impacts would be reduced, impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, noise, and transportation would remain significant and avoidable. This alternative would reduce most significant impacts, but not to below a level of significance, while still meeting most objectives of the 2024 GPU. However, the Reduced Growth Alternative would not meet as many of the 2024 GPU's primary objectives as the 2024 GPU itself. The elimination of employment opportunities would not accommodate job growth, build a diverse economy, improved rate of economic growth, or focus commercial uses in corridors to the same degree as the 2024 GPU. Furthermore, as the Reduced Growth Alternative would reduce mixed use development that would be proposed within the Downtown Center Concept Area as compared to the 2024 GPU, this alternative would provide less residential development, with the exception which would not help the City meet its Regional Housing Needs Allocation (RHNA) goals. Therefore, the Reduced Growth Alternative is not recommended for adoption.

S.6 Summary Table

Table S-1 summarizes the results of the environmental analysis including the potentially significant environmental impacts of the 2024 GPU and proposed mitigation measures to reduce or avoid these impacts. Impacts and mitigation measures are organized by issue in Chapter 4, Environmental Analysis.

This page left intentionally blank.

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
4.1 Aesthetics			
Would the project have a substantial adverse effect on a scenic vista?	Adherence to applicable Municipal Code design requirements and 2021 GPU policies would ensure that future development would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?	There are no state-designated or eligible scenic highways within the Planning Area. No impact would occur.	N/A	**No Impact**
In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points)? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Adherence to applicable 2021 GPU policies and Municipal Code requirements would ensure that future development would not degrade the existing visual character or visual character or quality public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	Adherence to applicable state building standards and Municipal Code regulations aimed at protecting against the effects of light and glare on day and nighttime views in the Planning Area would ensure that future development would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.	N/A	**Less than Significant**
4.2 Agriculture and Forestry Resources			
Would the project 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?	Implementation of the GPU would impact Prime Farmland and Farmland of Local Importance within proposed Concept Areas and would result in development of other agricultural lands that have the potential to convert additional Farmland to non- farming uses. Although the conversion of Farmland was anticipated and evaluated under the 2006 General Plan EIR, some vacant FMMP designations remain that could be converted to non-agricultural uses, which would be considered significant.	The project, like the 2006 General Plan, does not propose any permanent preservation of agricultural land, but allows agriculture as an interim use prior to development. Thus, preservation of agricultural resources would not be feasible as it would be inconsistent with General Plan goals and EIR project objectives.	**Significant and Unavoidable**
Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?	No conflicts with agricultural zoning would occur as the City does not have any exclusive agriculture zones and the project does not include any rezoning. No conflicts with Williamson Act Contracts would occur as no land use changes are proposed within or adjacent to a Williamson Act Contract. Impacts related to agricultural zoning and Williamson Act Contracts would be less than significant.	N/A	**Less than Significant**
Would the project 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])?	The City does not possess any zoning classifications for forestland, timberland, or timberland production zones. No impact would occur.	N/A	**No Impact**
Would the project result in the loss of forest land or conversion of forest land to non-forest use?	The Planning Area does not possess any forestland. No impact would occur.	N/A	**No Impact**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project 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?	Implementation of the project would intensify uses within the Planning Area in a manner that would reduce the feasibility of agricultural production. Therefore, the project would potentially result in indirect conversion of potential farmland resources to non-agricultural uses, which would be considered a significant impact.	The project, like the 2006 General Plan, does not propose any permanent preservation of agricultural land, but allows agriculture as an interim use prior to development. Thus, preservation of agricultural resources would not be feasible as it would be inconsistent with General Plan goals and EIR project objectives.	**Significant and Unavoidable**
4.3 Air Quality			
Would the project conflict with or obstruct implementation of the applicable air quality plan?	The Project would not be consistent with the Air Quality Management Plan (AQMP) as it would generate substantial population growth that exceeds the forecasted growth used in the development of the AQMP. As such, implementation of the Project would not be consistent with the AQMP under the first criterion. Therefore, impacts would be significant and unavoidable.	At a programmatic level of analysis, there are no feasible mitigation measures that would reduce air quality impacts associated with development facilitated by the 2024 GPU. Future construction and operational emissions would conflict with implementation of the AQMP. Impacts remain significant and unavoidable	**Significant and Unavoidable**
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standards?	Construction The scale and extent of construction activities associated with buildout of the Planning Area could exceed the relevant SCAQMD thresholds for some projects. Construction impacts would be potentially significant. Operation The project would conflict with implementation of the AQMP, and emissions associated with project buildout could generate long-term (operations) emissions in exceedance of the SCAQMD's threshold criteria. Therefore, the operation of the Project would result in a cumulatively considerable net increase in emissions, and impacts could be potentially significant.	**AQ-1:** Proposed development projects that are not exempt from CEQA shall have construction and operational air quality impacts analyzed using the latest available air emissions model, or other analytical method determined in conjunction with the SCAQMD. The results of the air quality impact analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis shall incorporate SCAQMD's Localized Significance Threshold (LST) analysis or other appropriate analyses as determined in conjunction with the SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts to the greatest extent feasible. **AQ-2:** Applicants for future discretionary development projects which will generate construction-related fugitive dust emissions that exceed applicable thresholds shall include, but are not limited to, the mitigation measures recommended by SCAQMD's CEQA Air Quality Handbook, to the extent technically and logistically feasible and applicable. The measures shall be included as notes on the grading and/or demolition plans: • The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust. • Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed water, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. This measure can achieve PM10 reductions of 61 percent through application of water every three hours to disturbed areas. • Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities: o All trucks shall be required to cover their loads as required by California Vehicle Section 23114. Covering loads and maintaining a freeboard height of 12 inches can reduce PM10 emissions by 91 percent. o All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering at not less than three hour intervals, application of environmentally safe soil stabilization materials, and/or roll-	**Significant and Unavoidable**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. Application of water every three hours to disturbed areas can reduce PM10 emissions by 61 percent. • Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until grass growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust. Replacement of ground cover in disturbed areas can reduce PM10 emissions by 5 percent. • Signs shall be posted on-site limiting traffic to 15 miles per hour or less. This measure can reduce associated PM10 emissions by 57 percent. • During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties; instantaneous wind speeds exceeding 25 miles per hour), all clearing, grading, earth-moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with SCAQMD when winds are excessive (above 25 miles per hour). • Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads. • Personnel involved in grading operations, including contractors and subcontractors, shall be required to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations. **AQ-3:** Applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds, shall include, but are not limited to, the mitigation measures recommended by the SCAQMD (in its CEQA Air Quality Handbook or otherwise), to the extent technically and logistically feasible and applicable to the project. The types of measures shall include but are not limited to: • Construction haul truck operators for demolition debris and import/export of soil shall use trucks that meet CARB's 2020 engine emissions standards of 0.01 grams per brake horsepower-hour of particulate matter (PM) and 0.20 grams per brake horsepower-hour of NOx emissions. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards and shall provide these records prior to grading permit issuance to the City. • Vehicle idling shall be limited to five minutes as set forth in California Code of Regulations Title 13, Article 4.8, Section 2449. Signs shall be posted in areas where they will be seen by vehicle operators stating idling time limits. This requirement shall be included on the plans. • Construction contractors shall utilize construction equipment that	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		uses low polluting fuels (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that they are available and feasible to use. This requirement shall be included on the plans. • Heavy duty diesel-fueled equipment shall use low NOx diesel fuel to the extent that it is available and feasible to use. This requirement shall be included on the plans. • Construction contractors shall use electricity from power poles rather than temporary gasoline or diesel-powered generators, as technically and logistically feasible, or solar where available. This requirement shall be included on the plans. • Construction contractors shall maintain construction equipment in good, properly tuned operating condition, as specified by the manufacturer, to minimize exhaust emissions. Documentation demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications shall be shared with the City prior to grading permit issuance. • Construction contractors shall reroute construction trucks away from congested streets or sensitive receptor areas, as technically and logistically feasible. This requirement shall be included on the plans.	
Would the project expose sensitive receptors to substantial pollutant concentrations?	Localized construction and operational emissions associated with future development that would be accommodated under the proposed Project could exceed the SCAQMD's LST thresholds. Therefore, construction and operational impacts related to sensitive receptors would be considered potentially significant.	**AQ–4:** Prior to issuance of a grading permit, if two or more dust-generating construction projects occur within 1,000 meters of each other, which collectively will disturb 15 acres or more and which have demolition, excavation, or grading activity scheduled to occur concurrently, a Localized Significance Threshold analysis shall be prepared. If the LST analysis determines that the established Localized Significance Thresholds for NOx, PM2.5, or PM10 would be exceeded, then modifications to construction equipment profiles, modifications to construction schedules, or additional pollution reduction measures shall be implemented to ensure that none of the Thresholds will be exceeded. **AQ–5:** A project-specific Health Risk Assessment (HRA) shall be conducted for future development projects that would generate TACs within 1,000 feet of sensitive receptors, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. It is noted that AB 98 requires proposed industrial projects within 900 feet of sensitive receptors to conduct an operational HRA. The HRA shall evaluate a project per the following SCAQMD thresholds: • Carcinogens: Maximally Exposed Individual risk equals or exceeds 10 in one million. For cumulative cancer risk, the maximum exposed individual risk equals or exceeds significance thresholds established by SCAQMD. • Non-Carcinogens: Emit toxic contaminants that equal or exceed 1 for the Maximally Exposed Individual. If projects are found to exceed the SCAQMD's thresholds, mitigation, including but not limited to requiring heavy-duty trucks, forklifts and/or yard trucks to be zero-emission, forbidding trucks from idling for more than three minutes, installing photo-voltaic systems, running conduit for future electric truck charging, requiring all stand-by generators to be non-diesel, designing to LEED green building certifications, and improving vegetation and tree canopy for shade, shall be incorporated to reduce impacts to below SCAQMD thresholds. The HRA shall be submitted to the City Planning Department to demonstrate that none of the Thresholds will be exceeded prior to issuance of building permits for any future discretionary residential or residential mixed-use project.	**Construction** - **Significant and Unavoidable** **Operation** - **Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Construction odors would be temporary, intermittent, and not expected to affect a substantial number of people. The Project's proposed land use map and adherence to existing regulations would ensure that future development would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and impacts would be less than significant.	N/A	**Less than Significant**
4.4 Biological Resources			
Would the project 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 CDFW or USFWS?	Buildout of the GPU would have the potential to directly or indirectly impact candidate, sensitive, or special status species through removal of habitat that supports sensitive species. While future site specific environmental review and application of regulations are likely to ensure adverse impacts to sensitive species are reduced to less than significant, it is not possible to ensure that every impact will be fully mitigated at a program level of analysis. Therefore, impacts would be significant.	**BIO-1:** Applications for future development of vacant properties (and portions thereof), wherein the Director of Community Development or his or her designee has determined a potential for impacts to sensitive biological resources, shall be required to prepare a site-specific general biological resources survey to identify the presence of any sensitive biological resources, including any sensitive plant or wildlife species. The report shall identify the need for focused presence/absence surveys and identify the presence of state or federal regulated wetlands or waters. If potentially significant impacts to sensitive biological resources, including sensitive species and/or wetlands are identified, the report shall also recommend appropriate mitigation to reduce the impacts to below a level of significance. **BIO-2:** Applications for future development, wherein the Director of Community Development or his or her designee has determined a potential for impacts to mature trees and/or native vegetation suitable for nesting birds, shall be required to restrict removal of sensitive habitat and vegetation to outside the breeding seasons of any sensitive species identified within adjacent properties (typical bird breeding season is February 1–September 1. as early as January 1 for some raptors). If vegetation clearing must begin during the breeding season, a qualified biologist shall provide recommendations to avoid impacts to nesting birds which typically includes a pre-construction survey within 3 days of the start of construction to determine the presence of active nests. If active nests are found, avoidance measures shall be implemented to ensure protection of the nesting birds. Avoidance measures may include a no-activity buffer zone, typically 300 feet from the area of disturbance or 500 feet for raptors, established at the discretion of the qualified biologist in consultation with the City, If activity buffer zones are not feasible, temporary noise barriers may be installed to attenuate construction noise. Noise wall height and adequacy shall be supported by a noise analysis to determine the anticipated construction noise levels with attenuation measures as recommended by the biologist and approved by the City. Periodic noise monitoring shall be conducted during construction to ensure noise attenuation standards are met. Accepted noise levels are species dependent and existing ambient noise levels can play a factor in establishing baseline acceptable noise.	**Significant and Unavoidable.** While implementation of mitigation measures BIO-1 and BIO-2 would reduce impacts on sensitive and special status species, it is not possible to ensure that every future project could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to candidate, sensitive, or special status species would remain significant and unavoidable at this program level of review.

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project 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 CDFW or USFWS?	Buildout of the GPU has the potential to impact a variety of riparian habitat types throughout the Planning Area. Future site-specific environmental review for development consistent with the GPU would ensure appropriate biological surveys are completed and would require adherence to applicable regulations and policies such as the MSHCP, state and federal wetland regulations, and policies in the Open Space and Resource Conservation Element of the GPU. While these regulations are likely to ensure adverse impacts to sensitive riparian habitats are reduced at the project level, at a program level of analysis it is not possible to ensure that every impact could be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on sensitive riparian habitats, and impacts would be significant	Refer to mitigation measure BIO-1	**Significant and Unavoidable.** While implementation of mitigation measure BIO-1 would reduce impacts on riparian habitats, it is not possible to ensure that every future project could fully mitigate potentially significant impacts Therefore, impacts to riparian habitats would remain significant and unavoidable at this program level of review.
Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	While subsequent development and redevelopment projects would be required to evaluate potential impacts on wetlands through project-level CEQA documentation and would be required to obtain applicable state and federal wetland permits, at a program level of analysis it is not possible to ensure that every impact would be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on wetlands, and impacts would be significant.	Refer to mitigation measure BIO-1	**Significant and Unavoidable.** While implementation of mitigation measure BIO-1 would reduce impacts on wetlands, it is not possible to ensure that every future project could fully mitigate potentially significant impacts. Therefore, impacts to riparian habitats would remain significant and unavoidable at this program level of review.
Would the project 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?	The proposed land use plan is consistent with regional conservation goals and linkages needed to maintain wildlife movement. Future development would be required to undergo a site-specific environmental review including compliance with MSHCP conservation goals for wildlife corridors and linkages. Impacts would be less than significant.	N/A	**Less than Significant**
Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	Future projects would be required to comply with GPU policies that support protection of biologically significant habitats and demonstrate consistency with applicable local ordinances protecting biological resources. The project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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 land use plan largely avoids MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. Any development within MSHCP Criteria Cells or other conserved status lands would require a discretionary review including a site-specific biological analysis including demonstrating compliance with MSHCP conservation goals. Project-specific environmental review and required compliance with the MSHCP and other applicable plans would ensure consistency with applicable habitat conservation plans. Impacts would be less than significant.	N/A	**Less than Significant**
4.5 Cultural and Tribal Cultural Resources			

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Analysis of impacts from future development on the built-environment would be required at the project level. Any alteration, relocation, demolition, or excessive groundborne vibration associated with future development that would affect historic buildings, structures, objects, landscapes, and sites would represent a significant impact to historical resources. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.	**CUL-1**: Prior to the issuance of any permit for a future development site- specific project that would directly or indirectly affect a building/structure in excess of 50 years of age, the City or a qualified architectural historian shall determine whether the affected building/structure is historically significant. The evaluation shall be based on criteria such as age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the CEQA guidelines. If the evaluation determines that building/structure is not historic, no further evaluation or mitigation would be required. If the building/structure is determined to be historically significant, the preferred mitigation would be to avoid the resource through project redesign. If the resource cannot be avoided, all prudent and feasible measures to minimize or mitigate harm to the resource shall be taken per recommendations of the qualified architectural historian.	**Significant and Unavoidable**
Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Analysis of impacts from future development on known and those-not-yet-found archaeological resources would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that could expose buried prehistoric or historic-era archaeological resources would represent a significant impact to historical resources. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.	**CUL-2:** Prior to issuance of any permit for a future site-specific project that would potentially have a direct or indirect affect an archaeological resource, the City shall require the following steps be taken to determine: (1) the presence of archaeological resources, and (2) the appropriate mitigation for any significant resources which may be impacted by project development. The following steps would help determine the presence or absence of archaeological resources. **Step 1**: An archaeologist shall conduct records and background research at the Eastern Information Center for a list of recorded resources and request a sacred lands file search from the Native American Heritage Commission. **Step 2**: After review of this data, a pedestrian survey shall be conducted by a qualified archaeologist. **Step 3**: If through the research and the field survey, archaeological resources are identified, then an evaluation of significance shall be completed by a qualified archaeologist. The evaluation program generally will include excavation to determine depth, extent, integrity, and content of the subsurface cultural material. **Step 4:** The results of the excavation will be evaluated using the Thresholds above in Section 4.5.4. **Step 5:** If an archaeological resource is determined significant and avoidance through project redesign is not feasible, a data recovery and construction monitoring program must be implemented to reduce the impacts the archaeological resource to below a significant level. The data recovery program must be approved by the City. **Step 6**: A final data recovery and/monitoring report shall be completed in accordance with the California Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Content and Format. Confidential attachments must be submitted under separate covers. Artifacts collected during the evaluation and data recovery phases must be curated at an appropriate facility consistent with state (California State Historic Resources Commission's Guidelines for Curation of	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		Archaeological Collection 1993) and federal curation standards (36 CFR 79 of the Federal Register) and that allows access to artifact collections. **CUL-3:** Prior to the issuance of any permit for a future site-specific project, the project developer shall retain a professional archaeologist (Project Archaeologist), at no cost to the City, to conduct monitoring of all ground disturbing activities associated with the respective project. The Project Archaeologist shall be authorized to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), which have requested monitoring, the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) as defined in CUL-5. The Project Archeologist shall attend all pre-grading meetings with the City, the project's construction manager, the project's general contractor and the pertinent contractors. In addition, the Project's Archaeologist shall provide and conduct Cultural Resources Worker Sensitivity Training, which the project's construction manager, general contractor, and all pertinent subcontracts shall be required to attend. In addition, to the Project Archaeologist, the designated archaeological monitor for the respective project shall have the authority to temporarily halt and redirect earth-moving activities in the affected area in the event that suspected archaeological resources are unearthed. **CUL-4**: Prior to the issuance of any permit for a future site-specific project, the project Developer shall secure agreements with the Consulting Tribe(s). The project developer shall provide a minimum of 30 days' advance notice to the tribes of all ground-disturbing activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth-moving activities in the affected area in the event that suspected archaeological resources are unearthed. The Native American Monitor(s) shall be invited to attend all pre-grading meetings with the Project Archaeologist, the City, the construction manager, and general contractor, and any pertinent subcontractors and conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance. **CUL-5**: The Project Archaeologist, in consultation with the Consulting Tribe(s), the project's construction manager and general contractor, and the City shall develop a CRMP in consultation pursuant to the definition in AB 52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A Consulting Tribe is defined as a Tribe that initiated the AB 52 and/or SB 18 tribal consultation process for the project, and has not opted out of the AB 52 and/or SB 18 consultation process, and has completed AB 52 and/or SB 18 consultation with the City as provided for in PRC Section 21080.3.2(b)(1) of AB 52. Details in the Plan shall	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		include: a. Project description and location b. Project grading and development scheduling; c. Roles and responsibilities of individuals on the project; d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details; e. The protocols and stipulations that the project's construction manager and general contractor, City, Consulting Tribe(s), and Project Archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items. g. Contact information of relevant individuals for the project; **CUL-6**: In the event that Native American cultural resources are discovered during the course of ground disturbing activities (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. Evidence of such shall be provided to the City of Moreno Valley Planning Division: i. Preservation-In-Place of the cultural resources, if feasible. Preservation-In-place means avoiding the resources, leaving them in the place they were found with no grading or construction activities commencing that may potentially affect or otherwise impact the integrity of the resources. ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CUL-3. This shall include 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. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CUL-5 The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document. **CUL-7**: The City shall verify that the following note is included on the Grading Plan of any future site-specific project: "If any suspected archaeological resources are discovered during ground–disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find.	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		CUL-8: If potential historic or cultural resources are uncovered during excavation or construction activities at any future site-specific project that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, all ground-disturbing activities in the affected area within 100 feet of the uncovered resource must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. 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 archeologists and Tribal Monitors if needed. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CUL-4 before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been 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. **CUL-9:** Prior to final inspection, the developer/permit holder shall prompt the Project Archeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the South Coastal Information Center (SCIC) at the San Diego State University (SDSU) and one (1) copy shall be submitted to each of the Consulting Tribe(s) Cultural Resources Department(s).	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Analysis of impacts from future development on human remains would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that would expose or disturb unknown human remains would represent a significant impact to human remains. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.	**CUL-10**: If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations and engage in consultations concerning the treatment of the remains (PRC Section 5097.98). (GP Objective 23.3, CEQA). No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s]. **CUL-11**:It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).	**Significant and Unavoidable**
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American?	Analysis of impacts from future development on tribal cultural resources would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that would affect tribal cultural resources represent a significant impact to Tribal cultural resources. Therefore, future projects would have the potential to result in a substantial adverse effect on tribal cultural resources, and impacts would be significant.	Refer to CUL-1 and CUL-11.	**Significant and Unavoidable**
4.6 Energy			
Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Energy conservation measures required by applicable energy conservation regulations (e.g., CALGreen, Title 24) and energy conservation policies included in the proposed 2024 GPU and the CAP would support the minimization of energy consumption from operations associated with future development. Additionally, the CAP includes a number of GHG reduction goals related to energy use and energy conservation Therefore, the Project would not result in a wasteful, inefficient or unnecessary consumption of energy resources.	N/A	**Less than Significant**

Table S-1 Summary of Environmental Impacts			
Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Future development allowed under the project would implement applicable regulation that would ensure development would be energy efficient. The Project would not conflict with or obstruct implementation of CALGreen and the California Energy Code, or with SCE and MVU's implementation of RPS, and impacts would be less than significant.	N/A	**Less than Significant**
4.7 Geology/Soils			
Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: • Rupture of a known earthquake fault, • Strong seismic ground shaking, • Seismic-related ground failure, including liquefaction, • Landslides?	Future development would be required to adhere to GPU Safety Element policies and Title 8, Chapter 8.21 Grading Regulations of the Municipal Code to ensure the safety of future land uses throughout the Planning Area, thereby minimizing potential adverse impacts. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. Future development would be required to comply with GPU Safety Element policies and Municipal Code requirements for geologic reports, which would ensure that impacts related to faults, seismic ground shaking, ground failure and landslides would be less than significant.	N/A	**Less than Significant**
Would the project result in substantial soil erosion or the loss of topsoil?	Future development would incorporate long-term water quality controls pursuant to storm water standards including the National Pollutant Discharge Elimination System (NPDES) Municipal Permit requirements. Municipal Code requirements (Title 8, Chapter 8.10 Stormwater/urban Runoff Management and Discharge Controls and Title 9, Chapter 9.17 Landscape and Water Efficiency Requirements) provides additional guidance for storm water management, erosion control and slope planting. Implementation of these regulations would ensure that future development would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Future development would be required to adhere to GPU Safety Element policies and Title 8, Chapter 8.21 Grading Regulations of the Municipal Code to ensure the safety of future land uses throughout the Planning Area, thereby minimizing potential adverse impacts. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. Future development would be required to comply with GPU Safety Element policies and Municipal Code requirements for geologic reports, which would ensure that impacts related to unstable geological units would be less than significant.	N/A	**Less than Significant**
Would the project Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Implementation of applicable building code regulations, Title 8, Chapter 8.21 Grading Regulations of the Municipal Code which requires a geotechnical investigation, in addition to other regulations and General Plan policies would ensure impacts related to expansive soils would not create a risk to life or property. Impacts would be less than significant.	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Construction-related ground-disturbing activities associated with future development could result in significant impacts (loss) of nonrenewable paleontological resources. Because site-specific details and locations of future development projects are not known at this program-level of analysis, impacts to paleontological resources would be potentially significant.	**PAL-1**: Applications for future development, wherein the Community Development Director or his or her designee has determined a potential for impacts to paleontological resources, shall review the underlying geology and paleontological sensitivity of the site. If it is determined that the potential exists that sensitive paleontological resources are present, the applicant shall be required to comply with the following mitigation framework. A qualified paleontological monitor shall be present during grading in project areas where a project specific geological technical study has determined that such monitoring is necessary due to the potential for paleontological resources to reside within the underlying geologic formations. The geologic technical study shall also provide specific duties of the monitor, and detailed measures to address fossil remains, if found.	**Less than Significant with Mitigation Incorporated**
4.8 Greenhouse Gas Emissions			
Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	GHG emissions from buildout under the 2024 GPU would not meet applicable thresholds, and a potentially significant impact would occur without additional measures. The proposed CAP developed a Qualified GHG Reduction Strategy that would reduce GHG emissions to align with the State's goals and recommendations. These strategies would serve to reduce GHG emissions associated with transportation, building energy, solid waste, water, and wastewater. Thus the 2024 GPU does not meet the threshold, and the impact is potentially significant. However, with the adoption and implementation of the proposed CAP, GHG emissions generated by the Project would be reduced to meet State GHG reduction targets. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant..	GHG-1: The City shall monitor implementation of the CAP and periodically update the CAP, adding or enhancing Actions and Measures to achieve City-specific reductions goals in line with SB 32 and AB 1279. Specifically, the City shall: a) Monitor continuously and report annually on CAP implementation activities. The annual monitoring report shall include the implementation status of each Action and Measure b) Calculate GHG emission reductions annually and monitor progress towards achieving the performance targets of each Action and Measure c) Update the City-wide GHG emissions inventories and targets aligned with SB 32 and AB 1279 every two to three years, in alignment with the five-year cycle specified below d) Prepare and adopt a fully updated CAP starting 2029, adopted by 2030, and every five years thereafter as needed if the inventories are showing the City is not on track to achieve the 2045 targets. e) Adopt Actions and Measures to close any "reduction gaps" between the updated inventories and applicable 2040 and 2045 goals no later than December 31, 2030 f) Create, enhance, expand, or replace Actions and Measures, as new technologies and programs emerge that warrant inclusion in the CAP GHG-2: For each discretionary project subject to and not exempt from CEQA, the applicant shall: a) Complete the City's GHG Emissions Analysis Compliance Checklist to assist with determining project consistency with the Moreno Valley CAP, and b) Incorporate appropriate GHG reduction measures to achieve their proportion of GHG emission reductions consistent with the assumptions of the CAP, and c) Document the infeasibility or inapplicability of CAP measures, and d) Propose alternative GHG reduction measures, as appropriate; or e) Demonstrate through a quantitative analysis that the project would not impede (or would facilitate) Moreno Valley's ability to meet the GHG emissions reduction targets.	**Less than Significant with Mitigation Incorporated**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.	The proposed CAP identifies strategies, measures, and actions that would be implemented to reduce GHG emissions consistent with State legislative requirements. However, because the 2024 GPU would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions (AB 1279). This impact would be potentially significant. However, with the adoption and implementation of the proposed CAP, GHG emissions generated by the Project would be reduced to meet State GHG reduction targets. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.	Refer to GHG-1 and GHG-2	**Less than Significant with Mitigation Incorporated**
4.9 Hazards & Hazardous Materials			
Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies would ensure that the project would not result in potential hazards associated with the use, transport, storage, and sale of hazardous materials, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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.	Adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies would ensure that the project would not result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies, would ensure that the project would not result in an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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, create a significant hazard to the public or the environment.	Adherence to applicable clean-up and/or remediation requirements and regulations would ensure that the project would not create a significant hazard associated with known hazardous materials sites, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project be 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, result in a safety hazard or excessive noise for people residing or working in the project area.	Development within the AICUZ is subject to development standards and restrictions as set forth in Municipal Code Section 9.07.060. Future development that would be located within the city's special zone and/or within the ALUC compatibility zones would be required to adhere to all special regulations, including Municipal Code development standards and specific land use regulations regarding FAA notification imaginary surfaces, aircraft noise, and building heights. Consequently, the project would be consistent with adopted ALUCPs, as future development would be required to show compatibility with the requirements of the ALUCPs, the Municipal Code, and associated FAA requirements. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Adherence to applicable LHMP standards and 2021 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.	N/A	**Less than Significant**

Table S-1 Summary of Environmental Impacts			
Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Compliance with MVFD regulations and 2021 GPU policies would ensure that project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, and impacts would be less than significant.	N/A	**Less than Significant**
4.10 Hydrology/Water Quality			
Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Construction adherence to relevant plans and programs, as well as Municipal Code requirements would ensure that future development would not violate any water quality standards or degrade surface or ground water quality, and construction-related impacts would be less than significant. Post-Development Adherence to relevant plans and programs, including the IGP, as well as Municipal Code requirements for preparation of a WQMP and applicable GPU policies, would ensure that future development would not violate any water quality standards or degrade surface or ground water quality, and long-term operational impacts would be less than significant.	N/A	**Less than Significant**
Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	The project has been designed to minimize the increase in impervious surfaces by primarily focusing on future development and redevelopment within the proposed Concept Areas that consist of clusters of vacant and underutilized land within the city limit that would allow for continued groundwater recharge in substantial portions of the Planning Area. Additionally, adherence to applicable GPU policies would ensure that future development would neither substantially deplete groundwater supplies nor interfere substantially with groundwater recharge, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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 off- site; 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.	Erosion or Siltation Adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not result in a substantial erosion or siltation on- or off-site, and impacts would be less than significant. Increase Surface Runoff Pursuant to the SAR WQMP, some future development may be required to include BMPs to reduce flow velocity of storm water runoff. Such BMPs could include on-site drainage swales, bioretention features, use of permeable pavers in parking areas and streets, or infiltration basins which also serve as a means for pollutant removal. Additionally, applicable Priority Development Projects would be required to include LID BMPS to treat potentially polluted runoff prior to entering the public storm drain system. Project-specific studies would be required to ensure that volume-based treatment LID BMPs are properly sized to infiltrate, filter, or treat the remaining portion of the runoff volume that was not retained or treated by other BMPs. Furthermore, adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, and impacts would be less than significant.	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
	Exceed Capacity of Stormwater System Future development would be required to comply with future SWPPPs and the project- specific WQMP, which would identify BMPs to be incorporated into development plans to ensure that near-term construction activities and long-term post-development activities would not result in substantial amounts of polluted runoff. Therefore, adherence to regional and local plans and regulations would ensure that future development would not create or contribute substantial additional sources of polluted runoff that would exceed the capacity of existing or planned stormwater drainage systems, and impacts would be less than significant. Flood Flows Future development would be required to adhere to regional and local plans, programs and regulations relating to storm water runoff and volume flow. All future development would include BMPs to manage polluted runoff and minimize flow volume and velocity. Therefore, adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not substantially impede or redirect flood flows, and impacts would be less than significant.		
In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation.	The Pacific Ocean is located more than 40 miles from the city. Therefore, there is no potential for tsunamis to impact the Planning Area. Future development would be required to comply with Municipal Code Chapter 8.12, Floodplain Ordinance, which requires flood safe measures be included in development plans. Remediation measures for Perris Dam described above would also serve to protect against a seiche. Therefore, impacts associated with flooding due to dam failure and seiche would be less than significant.	N/A	**Less than Significant**
Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	future development would be required to comply with the SAR Basin Water Quality Control Program, which includes the requirement to complete and submit of a SWPPP for construction-related activities. Future development would also be required to implement a WQMP to demonstrate compliance with the City's MS4 permit and to minimize the release of potential waterborne pollutants. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan, and impacts would be less than significant. Domestic water supplies throughout the Planning Area are not reliant on groundwater as a primary source. Furthermore, the OSRC Element includes the goals to preserve and protect natural resources, and policies are identified to ensure groundwater protection and improve groundwater infiltration measures. Therefore, the project would not conflict with or obstruct implementation of a groundwater management plan, and impacts would be less than significant.	N/A	**Less than Significant**
4.11 Land Use and Planning			
Would the project physically divide an established community.	Implementation of the project would not include new major infrastructure, such as a freeway, that could physically divide an established community. The changes envisioned with the land use plan and supporting policies are designed to increase community connections. Therefore, the project would not physically divide the community, and impacts would be less than significant.	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	The project would implement various City planning initiatives, identifies housing sites necessary to meet RHNA goals and ensure consistency with the state housing targets, and would facilitate implementation of the CAP. Furthermore, the project would not generate growth that would exceed 2040 SCAG projections. Therefore, the project would not cause a significant environmental impact due to a conflict with any applicable plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.	N/A	**Less than Significant**
4.12 Mineral Resources			
Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the stat?	The majority of land within the Planning Area is designated as MRZ-3, land for which the significance of mineral resources cannot be determined, or MRZ-1, land for which adequate geologic information indicates that no significant mineral deposits are present. Neither of these MRZ categories are considered significant mineral resources. The small amount of land designated as MRZ-2, areas underlain by mineral deposits where geologic data indicates that significant measured or indicated mineral resources are present, is not located within any of the proposed Concept Areas. Furthermore, this area is not currently used for mineral resource extraction. Therefore, the project would not result in the loss of availability of regionally valuable mineral resources, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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?	There are no active mineral resource extraction facilities within the Planning Area. The existing 2006 General Plan land use map, as well as the proposed GPU land use map do not delineate any mineral resource recovery sites, or designate any land for mineral resource production. Therefore, implementation of the project would not result in the loss of a designated mineral recovery site and no impact would occur.	N/A	**No Impact**
4.13 Noise			
Would the project generate 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;	Traffic Noise Increase in Ambient Noise: The increase in ambient noise levels adjacent to roadway segments listed in Section 4.13.5.1 would expose existing noise-sensitive receptors to a significant increase in ambient noise levels, and impacts would be significant. Land Use Compatibility: Future development proposals within the Planning Area would be required to conduct site-specific exterior and interior noise analyses to demonstrate that the proposed development would not place sensitive receptors in locations where the existing or future noise levels would exceed the land use compatibility standards. Impacts associated with future development would be less than significant. Railroad Noise Railroad noise levels would not exceed 60 CNEL within the Planning Area, and impacts would be less than significant. Stationary Noise Through enforcement of the Noise Regulation of the Municipal Code and 2024 GPU policies and actions, impacts associated with stationary sources of noise would be	Traffic Noise Impacts associated with the increase in ambient noise would be significant without mitigation. For existing noise sensitive land uses, possible noise-reduction measures would include retrofitting older structures with acoustically rated windows and doors featuring higher Sound Transmission Class ratings, which is a measure of exterior noise reduction performance. However, there is no mechanism in place for implementing such a retrofit program. In the event that existing uses are demolished and redeveloped, new homes would be required to provide sufficient sound insulation to meet City and CBC interior noise standards. Because it would be speculative to assume that all existing homes along impacted roadways would be redeveloped and the significant noise impacts would be to existing homes and other noise-sensitive uses in an already urbanized area, there is no feasible mitigation. Therefore, impacts to existing sensitive land uses would remain significant and unavoidable. Construction Noise **NOS-1:** The Director of Community Development or his or her designee shall require applicants to demonstrate whether the project has the potential to exceed noise standards contained in Sections	Traffic Noise - **Significant and Unavoidable** Construction Noise - **Significant and Unavoidable** Mitigation Measure NOS-1 would reduce construction noise exposure. However, for construction sites that are adjacent to noise-sensitive uses, there still could be a substantial temporary increase in noise levels that could lead to adverse noise-related impacts. Therefore, impacts would remain significant and unavoidable.

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
	less than significant. Construction Noise Construction activities associated with any individual development may occur near noise-sensitive receptors and noise disturbances may occur. Therefore, construction noise impacts would be considered potentially significant.	8.14.040 and 11.80.030 of the Municipal Code. If a project may exceed standards or is located adjacent to sensitive receptors, the City may require the applicant to prepare a Noise Analysis that estimates construction noise and identifies noise reduction measures that would ensure compliance with Municipal Code standards. Construction plans submitted to the City shall identify applicable measures on demolition, grading, and construction plans submitted to the City. Noise reduction measures can include, but are not limited to, the following: 1. Demolition, construction, site preparation, and related activities that would generate noise perceptible at the property line of the subject property are limited to the hours between 7:00 a.m. to 7:00 p.m. from Monday through Friday excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturdays. The building inspector may issue an exception to this limitation on hours in cases of urgent necessity where the public health and safety will not be substantially impaired. 2. Idling times for noise-generating equipment used in demolition, construction, site preparation, and related activities shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. 3. Demolition, construction, site preparation, and related activities within 70 feet from the edge of properties with existing, occupied noise-sensitive uses shall incorporate all feasible strategies to reduce noise exposure for noise-sensitive uses, including: a. Provide written notice to all known occupied noise-sensitive uses within 400 feet of the edge of the project site boundary at least 2 weeks prior to the start of each construction phase of the construction schedule; b. Ensure that construction equipment is properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications; c. Re-route construction equipment away from adjacent noise-sensitive uses; d. Locate noisy construction equipment away from surrounding noise-sensitive uses; e. Use sound aprons or temporary noise enclosures around noise-generating equipment; f. Position storage of waste materials, earth, and other supplies in a manner that will function as a noise barrier for surrounding noise- sensitive uses; g. Use the quietest practical type of equipment; h. Use electric powered equipment instead of diesel or gasoline engine powered equipment; Use shrouding or shielding and intake and exhaust silencers/mufflers; and i. Other effective and feasible strategies to reduce construction noise exposure for surrounding noise-sensitive uses. 4. For construction of buildings that require the installation of piles, an alternative to installation of piles by hammering shall be used.	

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
		This could include the use of augured holes for cast-in-place piles, installation through vibration or hydraulic insertion, or another low- noise technique.	
Would the project generate excessive groundborne vibration or groundborne noise levels?	Construction details, locations, and equipment for future project-level developments under the 2024 GPU are not known at this time but may cause vibration impacts. Therefore, construction vibration impacts would be considered potentially significant. Vibration impacts due to railroad activities and stationary source would be less than significant.	**NOS-2:** Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.	**Less than Significant with Mitigation Incorporated**
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?	Adherence with the noise requirements of the ALUCP, the Municipal Code, and associated FAA requirements would ensure that future development would not expose people to excessive aircraft noise levels, and impacts would be less than significant.	N/A	**Less than Significant**
4.14 Population/Housing			
Would the project induce substantial unplanned population growth in an area, either directly ((for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	The project would exceed the state RHNA requirements, would reduce future population and household growth compared to 2040 SCAG projections, and would locate future infrastructure along major transit corridors that are already served by essential roads, utilities, and public services. Therefore, the project would not induce substantial unplanned population growth, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	The project would exceed the state RHNA requirements, which would provide additional housing that would accommodate residents displaced by future redevelopment projects, and ensure no net loss of housing. Furthermore, the project would result in a reduction of future population and household growth compared to 2040 SCAG projections. Therefore, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and impacts would be less than significant.	N/A	**Less than Significant**
4.15 Public Services and Recreation			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause	Fire Protection Future fire protection facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered fire protection	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: • Fire Protection; • Police Protection; • Schools; • Parks/Recreational Facilities • Other Public Facilities?	facilities to a level less than significant. Police Protection Future police protection facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered police facilities to a level less than significant. Schools Future schools would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered schools to a level less than significant. Other Public Facilities Future libraries would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered libraries to a level less than significant.		
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?	Future parks would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR. Therefore, the project would develop future park facilities that would compensate that would address substantial increase in the use of parks that would occur under project buildout.	N/A	**Less than Significant**
Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Implementation of the mitigation framework established in this EIR would reduce impacts associated with the provision of new or physically altered parks to a level less than significant.	N/A	**Less than Significant**
4.16 Transportation			
Would the project conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	The project would implement roadway and circulation improvements, new bicycle and pedestrian facilities, as well as the polices and actions listed under goals C-1 through C-3 in order to improve the circulation network through project buildout in 2040. Therefore, the project would not conflict with a plan, ordinance, or policy addressing the circulation system, and impacts would be less than significant.	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	Implementation of the Project would result in the increase in VMT based on several metrics (shown in bold in Table 4.16-5). As a result of some metrics that exceeded the significance criteria based on certain analysis methodologist, impacts would be significant. The project includes TDM goals, policies, and actions that would support VMT reductions; however, anticipated VMT reductions associated with proposed TDM measures would be large enough to guarantee that significant impacts could be fully mitigated. Therefore, projected VMT generated under buildout of the Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). This would be considered a significant impact.	The project has incorporated VMT reducing goals and policies to the extent feasible. No additional mitigation was identified that could reduce VMT impacts. Therefore, impacts would remain significant and unavoidable.	**Significant and Unavoidable**
Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	The 2021 GPU includes policies and actions described above that would ensure future transportation facilities would not introduce hazards onto the circulation network, and future development and redevelopment would also be designed consistent with all safety requirements pertaining ingress and egress onto the circulation network. Therefore, the project would not substantially increase hazards, and impacts would be less than significant.	N/A	**Less Than Significant**
Would the project result in inadequate emergency access?	Adherence to applicable LHMP standards and 2021 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the project would not result in inadequate emergency access, and impacts would be less than significant.	N/A	**Less than Significant**
4.17 Utilities/Service Systems			
Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Water Future water facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded water facilities to a level less than significant. Wastewater Future wastewater facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded wastewater facilities to a level less than significant. Stormwater Future stormwater facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded stormwater facilities to a level less than significant. Electric Power, Natural Gas, and Telecommunications Future facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic	N/A	**Less than Significant**

Table S-1
Summary of Environmental Impacts

Threshold	Impact Discussion	Mitigation Measure	Significance After Mitigation
	mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded electrical, natural gas, and telecommunications facilities to a level less than significant.		
Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	The project would not exceed forecasted water demand projections for EMWD or BSMWC, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	The project would not exceed forecasted wastewater demand projections for EMWD or ECSD, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, EMWD and ECSD would have adequate capacity to provide wastewater treatment for the project, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project 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?	The project would not generate excessive solid waste that would exceed regional forecasted demand, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, the project would not generate solid waste in excess of state or local standards, exceed the capacity of local infrastructure, and impacts would be less than significant.	N/A	**Less than Significant**
Would the project comply with federal, state, or local management and reduction statutes and regulations related to solid waste?	Future site-specific development under the project would be required to complete a Waste Management and Recycling Plan and a Diversion Plan, which would ensure consistency with local, state, and federal requirements regarding waste diversion. Therefore, the project would not conflict with federal, state, or local management and reduction statutes and regulations related to solid waste, and impacts would be less than significant.	N/A	**Less than Significant**
4.18 Wildfire			
Would the project Substantially impair an adopted emergency response plan or emergency evacuation plan?	Future projects developed under the GPU would be designed in a manner that would not obstruct evacuation routes documented in the City's LHMP and would be required to adhere to the Municipal Code requirements and policies included in the GPU Safety Element that address disaster response and emergency evacuation. Compliance with Municipal Code regulations and local disaster prevention plans, as well as conformance with GPU policies, would ensure that the project would not impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.	N/A	**Less than Significant**

1

Chapter 1
Introduction

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 1, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

1.1 Project Background

In June 2021, the City Council of the City of Moreno Valley ("City Council") approved and adopted the City's 2040 General Plan Update ("2040 General Plan") a Change of Zone, and Municipal Code Update, and its Climate Action Plan ("CAP") and certified an Environmental Impact Report ("EIR"), State Clearinghouse No. 2020039022, as having been prepared in compliance with CEQA in connection with the approvals. A lawsuit entitled *Sierra Club v. The City of Moreno Valley*, filed in July 2021, Riverside Superior Court Case No. CVRI2103300 (the "Sierra Club lawsuit"), challenged the validity of the CAP and the EIR.

In October 2021, in an amended petition, the Sierra Club alleged that the City had violated CEQA by failing to use a valid baseline, which effectively prejudiced the City's consideration of the Project's air quality, transportation, energy, and other impacts; and, by failing to adequately disclose or mitigate the significant environmental impacts on air quality and greenhouse gas ("GHG") emissions, and energy use analyses produced a wrong determination of the significance of the impacts that could be expected under the 2040 General Plan. The Sierra Club lawsuit, joined in by the California Attorney General, challenged the validity of the CAP and the EIR. In May 2024, the City Council set aside the 2021 approvals and

certification to comply with the Court's May 6, 2024, judgment, based on the Court's March 5, 2024 ruling (the "Ruling").

The Ruling set forth the following findings:

- The EIR provided information on the air quality emissions and energy usage as they existed in 2018, the year that the EIR's Notice of Preparation ("NOP") was issued. However, the EIR compared the air quality impacts and energy usage to those conditions under the buildout of the 2006 General Plan. The Ruling states that the EIR used an incorrect baseline that resulted in a wrong determination of the significance of the impacts that can be expected under the 2040 General Plan.
- The EIR failed to include projects for the air quality analysis that were not included in the 2016 Air Quality Management Plan ("AQMP").
- The EIR failed to adequately discuss the impact of the 2040 General Plan on sensitive receptors and, in particular, the resulting health impacts.
- The EIR failed to adequately analyze and mitigate Toxic Air Contaminants.
- The EIR failed to analyze GHG emissions and the significance of their impacts and failed to provide appropriate mitigation measures for an adequate Mitigation Monitoring and Reporting Program ("MMRP").
- The CAP was inadequate for tiering purposes.
- The EIR failed to adequately analyze construction, building use and transportation energy usage and failed to provide appropriate mitigation measures.

It should be noted that other sections of the EIR were neither challenged nor found to be inadequate. Those sections are included in the Revised Draft Program EIR to ensure that readers have the entirety of the EIR for informational purposes. For additional details regarding the Ruling, please see Chapter 2, Environmental Setting.

1.2 Type of EIR

Consistent with Section 15168 of the California Environmental Quality Act (CEQA) Guidelines, this Revised Draft Program Environmental Impact Report ("Revised Draft EIR") provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, actions, and projected buildout of the following three planning documents:

- 2024 General Plan Update ("2024 GPU"),
- Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and
- 2024 CAP

These three separate planning documents are collectively referred to as the MoVal 2040 Project ("Project").

As described in Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the

issuance of rules, regulations, and other planning criteria. The Project which is the subject of this Revised Draft EIR consists of long-term plans that will be implemented as policy documents guiding future development activities and related City of Moreno Valley ("City") actions. The purpose of this program-level EIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of the Project. This program-level EIR also considers the availability of mitigation measures to minimize the Project's significant impacts and evaluates reasonable alternatives to the Project that may reduce or avoid one or more significant environmental effects.

1.3 List of Project Approvals

The Project would require Planning Commission and City Council approval of the following three Project components:

- 2024 GPU,
- Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and
- CAP

1.4 Statement of Legal Authority

The City of Moreno Valley is the Lead Agency for the Project pursuant to Article 4 (Sections 15050 and 15051) of the CEQA Guidelines. The Lead Agency, as defined by CEQA Guidelines Section 15367, is the public agency which has the principal responsibility and authority for carrying out or approving a project. The analysis and findings in this document reflect the independent, impartial conclusions of the City.

1.5 Responsible/Trustee Agencies

State law requires that all EIRs be reviewed by Responsible and Trustee Agencies. A Responsible Agency, defined pursuant to CEQA Guidelines Section 15381, includes all public agencies other than the Lead Agency which have discretionary approval power over the Project. A Trustee Agency is defined in Section 15386 of the CEQA Guidelines as a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the state of California. Implementation of the Project would require subsequent actions or consultation from Responsible or Trustee Agencies. A brief description of some of the primary Responsible or Trustee Agencies that may have an interest in the Project is provided below.

1.5.1 U.S. Army Corps of Engineers

The United States Army Corps of Engineers ("USACE") has jurisdiction over development in or affecting the navigable waters of the United States. All permits issued by the USACE are subject to consultation and/or review by the United States Fish and Wildlife Service ("USFWS") and the United States Environmental Protection Agency ("USEPA"). Streambeds

and drainages occurring within the Project area may contain wetlands, which may be classified as jurisdictional waters of the United States. No permits from USACE are required at this time; however, future development that could occur with implementation of the Project and associated discretionary actions may require review and/or USACE permits in the future.

1.5.2 California Department of Transportation

Two California Department of Transportation ("Caltrans") facilities are located within or adjacent to the Project area. State Route 60 ("SR 60") traverses the northern portion of the City (east and west direction) and Interstate Highway 215 ("I-215") runs in proximity to the westerly City limits (north and south direction). No permits from Caltrans are required at this time; however, Caltrans approval would be required for any encroachments or construction of facilities in a Caltrans right-of-way associated with future development within the Project area.

1.5.3 California Department of Fish and Wildlife

An Agreement Regarding Proposed Stream or Lake Alteration ("Streambed Alteration Agreement") with an agency or private party proposing to alter the bed, banks, or floor of any watercourse/stream, is under the authority of the California Department of Fish and Wildlife ("CDFW") pursuant to Section 1600 et seq. of the State Fish and Game Code. The purpose of Sections 1600-1616 is to protect and conserve fish and wildlife resources that could be substantially adversely affected by a substantial diversion or obstruction of natural flow of, or substantial change or use of material from the bed, bank, or channel of, any river, stream, or lake. Streambeds and other drainages occurring within the Planning Area may contain wetlands. No permits from CDFW are required at this time; however, future development that could occur with implementation of the Project and associated discretionary actions may require review and/or Streambed Alteration Agreements in the future.

1.5.4 California Regional Water Quality Control Board - Santa Ana Region

The California Regional Water Quality Control Board ("RWQCB") - Santa Ana Region ("SAR") regulates water quality through the Federal Clean Water Act Section 401 certification process and oversees the National Pollutant Discharge Elimination System ("NPDES"), to protect water resources and control pollutants in runoff. The RWQCB is responsible for implementing permitting, compliance, and other activities to reduce pollutants in municipal, construction, and industrial storm water runoff, including overseeing the Municipal Separate Storm Sewer System ("MS4") Permit (R8-2010-0033). No permits from the RWQCB are required at this time; however, future development that could occur with implementation of the Project and associated discretionary actions may require review and/or Section 401 certifications.

1.5.5 Riverside County Airport Land Use Commission

The Riverside County Airport Land Use Commission ("ALUC") assists local agencies by ensuring the development of compatible land uses in the vicinity of existing airports. Beginning in 2004, the ALUC began adopting new versions of the airport land use compatibility plan ("ALUCP") for most Riverside County airports that are contained within a single, countywide document entitled the Riverside County ALUCP. As a Responsible Agency, the ALUC would review future development proposals within the Project area, if located within the ALUCP, and make "consistency determinations" with the provisions and policies set forth in the March Air Reserve Base/Inland Port Airport ("MARB/IPA") Land Use Compatibility Plan.

1.6 Scope of the Revised Draft EIR

The NOP was circulated on July 30, 2024, and a scoping meeting was held on Wednesday, August 14, 2024 at the City Hall – Council Chambers, located on 14177 Frederick Street, Moreno Valley, California. The NOP circulated for analysis of the Project, related letters received, and comments made during the scoping meeting are included as Appendix A of this Revised Draft EIR.

The Revised Draft EIR was circulated for public review for a period from July 7, 2025 through August 21, 2025 ("Public Review Period"). The Revised Draft EIR and all related appendices have been made available for public review and inspection during the Public Review Period at City Hall, located on 14177 Frederick Street, Moreno Valley, California, and on the Community Development Department's Current Projects webpage at:

http://www.moreno-valley.ca.us/cdd/documents/about-projects.html

Copies of the Notice of Availability of the Revised Draft EIR were also available at the City's three public library branches at the following locations:

- Main Branch, located at 25480 Alessandro Boulevard
- Mall Branch located at 22500 Town Circle
- Iris Plaza Branch located at 16170 Perris Boulevard

A brief overview of each chapter of the Revised Draft EIR is provided below:

Executive Summary: Summarizes the Revised Draft EIR by providing an overview of the Project, analysis of the potentially significant environmental impacts that could result from the Project, a list of mitigation measures identified to reduce or avoid such impacts, a review of the alternatives to the Project, including the identification of an environmentally superior alternative to the Project.

1.0 Introduction: Provides an overview of the Project background, applicable legal authority, the Ruling, introduces the purpose for the Revised Draft EIR and explains the EIR process and the intended uses of the Revised Draft EIR.

2.0 Environmental Setting: Provides a description of the Project's regional context, location, and existing physical characteristics and land use within the Planning Area. More detailed descriptions of the environmental context pertaining to specific environmental topics are provided in each section of Chapter 4, Environmental Analysis.

3.0 Project Description: Provides a detailed description of the Project, including the purpose and objectives of the Project and descriptions of each component of the Project (2024 GPU and CAP).

4.0 Environmental Analysis. Analyzes the environmental impacts of the Project. Sections that have been modified as a result of the Ruling are denoted with an asterisk (*) below.[1] Impacts are organized by the following topic areas:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality*
4.4 Biological Resources
4.5 Cultural and Tribal Cultural Resources*[2]
4.6 Energy*
4.7 Geology/Soils
4.8 Greenhouse Gas Emissions*
4.9 Hazards & Hazardous Materials
4.10 Hydrology/Water Quality
4.11 Land Use/Planning
4.12 Mineral Resources
4.13 Noise*
4.14 Population/Housing
4.15 Public Services and Recreation
4.16 Transportation*
4.17 Utilities/Service Systems
4.18 Wildfire

Each topic area respectively provides a contextual description of the Project's environmental setting, significance criteria, methodology, and potential impacts.

5.0 CEQA Mandated Analysis: Summarizes the Project's significant and unavoidable environmental impacts, significant irreversible environmental changes, and growth-inducing impacts.

[1] The Ruling and the resulting judgment and writ of mandate affected only a few of the chapters and sections of the 2021 EIR. Those chapters and sections which were not found to violate CEQA are presented as originally written in order to allow the reader to have the entirety of the Revised Draft EIR set forth in one place. The unaffected chapters and section are not subject to further challenges nor should comments concerning them be submitted.

[2] The Ruling did not find that the Chapter on Cultural Tribal Resources violated CEQA. It has been revised only to add citations and to show compliance with the requirements of Assembly Bill 52 (2014) and Senate Bill 18 (2004) in connection with the preparation of this Revised Draft EIR.

6.0 Project Alternatives: This chapter presents a reasonable range of alternatives to the Project and includes the following:

- A discussion of the environmental impacts associated with each alternative
- A comparison of the relative impacts of each alternative to those of the Project
- A discussion of the relationship of each alternative to the Project's objectives, and
- Identification of the environmentally superior alternative.

7.0 EIR References: Lists documents and other information sources relied upon in the preparation of this Revised Draft EIR and identifies the persons and organizations that contributed to the preparation of this Revised Draft EIR.

1.7 Incorporation by Reference

Consistent with CEQA Guidelines Section 15150, this Revised Draft EIR incorporates the following documents by reference:

- World Logistics Center Specific Plan (Adopted August 25, 2015)
- World Logistics Center Specific Plan Revised Final EIR, June 16, 2020 (State Clearinghouse No. 2012021045)
- Aquabella Specific Plan Amendment (Adopted December 3, 2024)
- Aquabella Specific Plan Amendment Subsequent Final EIR, Certified November 19, 2024 (State Clearinghouse No. 2023100145

Where portions of the documents are relevant to the analysis in this Revised Draft EIR, the incorporated part of the referenced documents is briefly summarized. In compliance with CEQA Guidelines Section 15150, the documents listed are available to the public at the City of Moreno Valley Community Development Department.

This page left intentionally blank.

2

Chapter 2
Environmental Setting

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 2, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

2.1 Planning Context

2.1.1 Project Location

The City of Moreno Valley (City) is located within the northwestern portion of Riverside County in the southern Inland Empire portion of the state of California. Moreno Valley is located approximately 63 miles east of downtown Los Angeles, 49 miles east of the City of Irvine, and 43 miles west of the City of Palm Springs. State Route 60 (SR 60), which runs in an east and west direction through the northern portion of Moreno Valley (east and west direction), and Interstate 215 (I-215), which runs in proximity to the westerly City limits (north and south direction), serve to connect the City to other communities throughout the southern California region. In 2015, the City approved the World Logistics Center Specific Plan, which proposed the annexation of an 85-acre parcel of vacant, uninhibited territory at the Northwest Corner of Gilman Springs Road and Alessandro Boulevard. With approval of the World Logistics Center Specific Plan, this 85-acre parcel has been annexed into the City boundaries.

The City is accessible via public transportation by rail via the proximate Metrolink Station located approximately one-half mile west of the City limits. The City is accessible via aircraft at the Inland Port Airport, which currently serves cargo transport but could implement future commercial passenger service, located at the March Air Reserve Base (MARB), which is situated south and west of the City limits.

The City's picturesque valley setting is bounded to the north by the Box Springs Mountains, the Badlands to the east, and the mountains of the Lake Perris Recreation Area, Mystic Lake

floodplain, and San Jacinto Wildlife Area to the south. The City is also bounded by MARB to the southwest and the City of Riverside to the west.

Moreno Valley is a diverse and growing community of approximately 205,620 people as of 2024. It has a relatively young and dynamic majority Latino population. The City has seen significant employment growth in recent years, having created over 20,000 new jobs locally since 2018. The City is currently home to approximately 4,500 businesses, including many Fortune 500 and international companies such as Amazon, Proctor & Gamble, Skechers USA, and Karma Automotive. Other important institutions established in the City include the Riverside University Health System Medical Center, a public teaching hospital, the Kaiser Permanente Hospital, and Moreno Valley College. Figure 2-1 presents Moreno Valley's regional location.

Figure 2-2 presents the Planning Area, which includes land within the City limits and Moreno Valley's Sphere of Influence (SOI). The SOI is a plan for the probably physical boundaries and service area of the City. It encompasses the territory that is envisioned to be added to the City's ultimate service area through annexation. The Riverside Local Agency Formation Commission (LAFCO) is vested with the authority to review and approve (or deny) any amendment to the City's SOI and annexations of new territory. In total, the Planning Area comprises a total of approximately 42,900 acres (67 square miles) of both incorporated and unincorporated land bearing relation to the City's future growth. The existing City limits encompass approximately 33,000 acres (51.6 square miles) of incorporated land, or 77 percent of the Planning Area. Existing development within the City limits include residential, commercial, and industrial developments, as well as public/community facilities, including parks, schools, utilities, church/religious facilities, and hospitals/care facilities. The City's SOI boundary incorporates a total of approximately 9,920 acres outside of the City limits (15.5 square miles) or 23 percent of the total land located in the Planning Area. The Planning Area for the CAP, unless otherwise noted, is limited to the area within the City's current territorial boundaries.

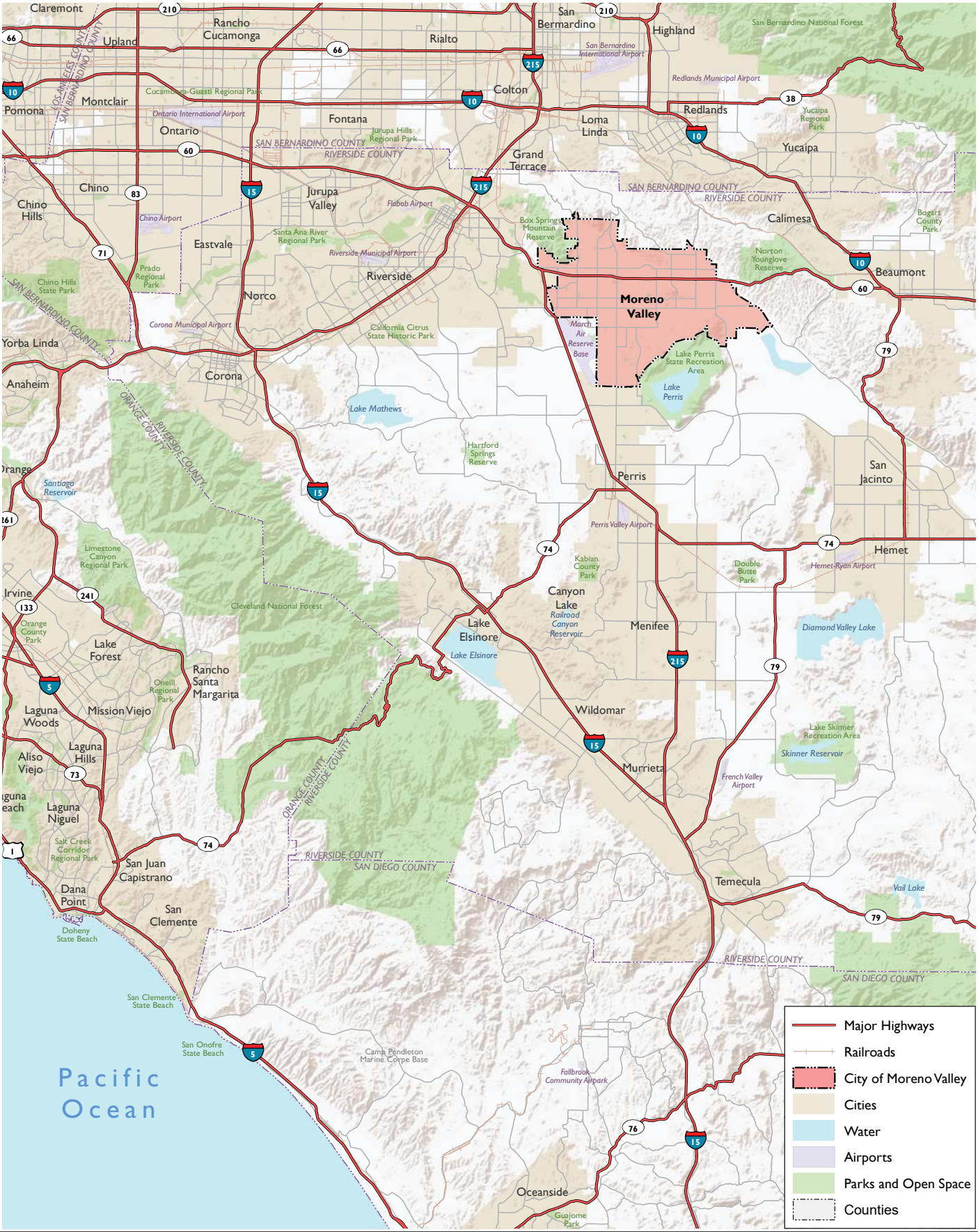
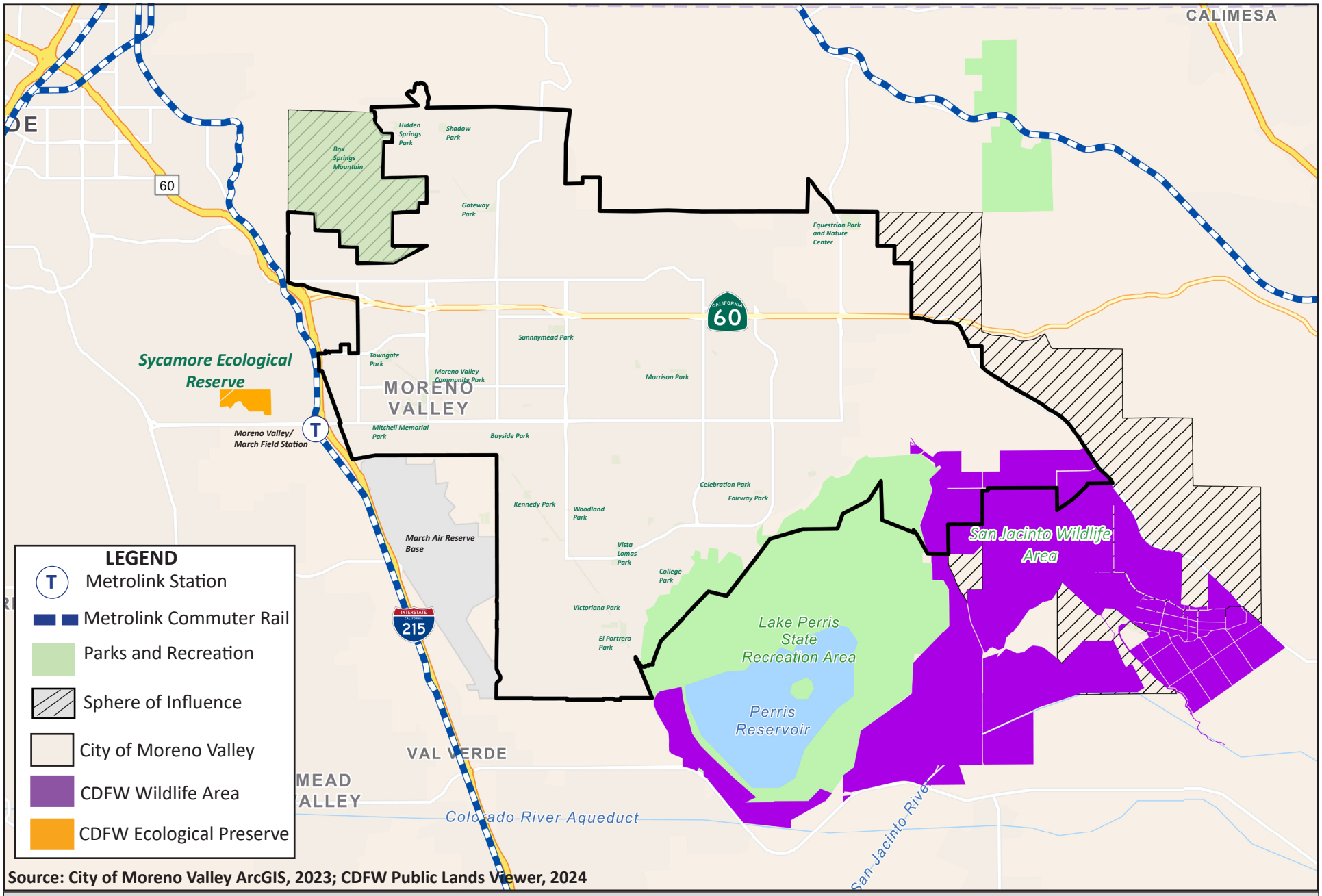


FIGURE 2-1 REGIONAL LOCATION

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn



Source: City of Moreno Valley ArcGIS, 2023; CDFW Public Lands Viewer, 2024

FIGURE 2-2: PLANNING AREA
MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

Today, Moreno Valley is a community of approximately 210,378 residents[1], and the City's motto is "People, Pride, Progress." Among California's growing cities, Moreno Valley is the second most populous in Riverside County and growth can be attributed to the diverse range of quality housing options, which include higher-end executive homes, affordable single-family homes, condominiums, and apartments; a family-friendly lifestyle; good schools; and impressive quality-of-life amenities and growing job centers. The demographic profile of Moreno Valley consists primarily of young families. The majority of the City's population identify themselves as Hispanic/Latino (of any race). The average age in the City is also relatively young, with nearly 27 percent of the population under 18 years of age.[2]

2.1.2 Current Adopted Moreno Valley General Plan

Adopted in 2006, the existing Moreno Valley General Plan provides goals, objectives, policies, and programs that serve as a guide to the development of the future character of the City. Acting as the "constitution" for the physical development of the City, the General Plan forms the basis of decisions concerning the development of property. The current, adopted General Plan includes all the mandated elements required by California State law in 2006: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Certain mandatory elements are combined to minimize redundancy and an optional Economic Development Element was planned for but not completed. The existing 2006 General Plan is accompanied by a preamble that outlines the overall vision of development within Moreno Valley:

> The City of Moreno Valley embraces the interests of its residents and strives to meet their needs by creating a sense of community. The commitment to this vision encourages attractive amenities and a full range of public services, while promoting a safe and healthy environment. It is the goal of the City to improve the quality of life by creating this "sense of place" and working together to encourage involvement and volunteerism while endeavoring to function in an effective, responsible, efficient and visionary manner.

In 2006, eight "ultimate goals" were identified for the existing General Plan, detailed below.

> The ultimate goals of the General Plan are to achieve a community which . . .
>
> 1. Exhibits an orderly and balanced land use pattern that accommodates a range of residential, cultural, recreational, business and employment opportunities.
>
> 2. Is clean, attractive and free of blight and deteriorated conditions.

[1] United States Census Bureau, 2025 American Community Survey, 2023 ACS 5-Year Estimate, https://data.census.gov/table/ACSCP5Y2023.CP05?g=160XX00US0649270&d=ACS%205-Year%20Estimates%20Comparison%20Profiles. Accessed February 14, 2025.

[2] United States Census Bureau, 2025, American Community Survey, 2023 ACS 5-Year Estimate. https://data.census.gov/table/ACSCP5Y2023.CP05?g=160XX00US0649270&d=ACS%205-Year%20Estimates%20Comparison%20Profiles. Accessed February 14, 2025.

3. Provides public services and public facilities that are needed and desired by the community, including, but not limited to, a library(s) and library services.

4. Enjoys a healthy economic climate that benefits both residents and businesses.

5. Provides recreational amenities, recreation services and open space, including, but not limited to, parks, multi-use trails, community centers and open space.

6. Enjoys a circulation system that fosters traffic safety and the efficient movement of motor vehicles, bicycles and pedestrians.

7. Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

8. Recognizes the need to conserve natural resources while accommodating growth and development.

2.1.3 Prior Planning Initiatives

Subsequent to the adoption of the existing 2006 General Plan, the City completed several major planning initiatives, which are summarized below.

2.1.3.1 2021-2029 Housing Element

The 2021-2029 Housing Element, adopted by the City Council on June 15, 2021 and certified by the California Department of Housing and Community Development on October 11, 2022, is a component of the General Plan which guides planning for housing to meet the current and projected needs of all households in the City.[3] The Housing Element includes an assessment of housing needs and lays out goals, policies, and programs for the preservation, improvement, and development of housing to meet community needs. A critical part of the Housing Element is the inventory of housing opportunity sites and an analysis of the capacity of those sites to accommodate the City's Regional Housing Needs Allocation ("RHNA") as determined by the Southern California Association of Governments ("SCAG").

Moreno Valley's RHNA allocation for the Sixth Cycle was 13,595 units of total new construction needed. Per the Housing Element, the new construction would be broken down into 1,884 extremely low income level units (30 percent or less of area median income or

[3] City of Moreno Valley, Public Review Draft Housing Element 2021-2029, February 2021, https://www.hcd.ca.gov/housing-elements/docs/moreno_valley_6th_draft021921.pdf. Accessed April 10, 2025.

AMI), 1,884 very low income level units (50 percent or less of AMI), 2,046 low (51-80 percent of AMI), 2,161 moderate income level units (81-120 percent of AMI), and 5,620 above moderate income level units (more than 121 percent of AMI). The RHNA does not necessarily require development on any specific parcel, but rather allows communities to anticipate growth, so that collectively the community and the region can accommodate housing to meet the needs of all household income demographics in the community and the State. The Housing Element was not overturned in the challenge led by the Sierra Club in the Riverside County Superior Court (described below).

2.1.3.2 World Logistics Center Specific Plan

Adopted by the City in 2015, the World Logistics Center (WLC) Specific Plan covers 2,610 acres, which amounts to approximately 7.9 percent of land within the City limits. The WLC Specific Plan covers an area in the eastern portion of the City, bounded by SR-60 to the north, Cactus Avenue to the south, Redlands Boulevard to the west, and Gilman Springs Road to the east. The WLC Specific Plan envisions up to 40.6 million square feet of building area specifically designed to support the City's growing next generation of logistics and advanced manufacturing industries and related businesses. Approximately 2,383 acres (40.4 million square feet) are planned for Logistics Development (LD) and 37 acres (200,000 square feet) are planned for Light Logistics (LL), which also includes offices uses.

Development and occupancy of the WLC Specific Plan area is planned over a period of 15 years, from 2020 through 2035, although the actual development phasing and square footage buildout will be based on future market trends and conditions. The businesses within the WLC Specific Plan area are projected to create approximately 24,000 permanent new jobs within the City (20,307 direct jobs and 3,693 indirect jobs).

Litigation challenging the approval of the WLC Specific Plan and its related EIR was resolved in 2021, allowing the development of the WLC, which began in March 2025.

2.1.3.3 Momentum MoVal Strategic Plan

In 2016, the City adopted Momentum MoVal, the City's first Strategic Plan to guide the community's growth in a three- to five-year timeframe, commencing in 2016. The City's top priorities are grouped into six categories: Economic Development; Library; Public Safety; Infrastructure; Youth Programs; and Beautification, Community Engagement, and Quality of Life. Through the General Plan Update (GPU) process, the priorities identified in Momentum MoVal have been incorporated into the General Plan to guide the community's growth, with particular attention to land use, towards year 2040.

Momentum MoVal prioritizes the goal of establishing the City as an international model in logistics development while simultaneously promoting small business development and entrepreneurship. As such, Momentum MoVal determined that the quantity, location, and character of general/light industrial and commercial/office land uses would require consideration in the future planning documents. Furthermore, quality of life and community interaction can be enhanced through the creation of a downtown core that offers "Third

Space" gathering opportunity outside of the workplace or home to encourage social exchange in a live, work, and play atmosphere.

2.1.3.4 Medical Centers Expansion

The City has two major medical centers—the Riverside University Health System Medical Center and the Kaiser Permanente Moreno Valley Medical Center. Both medical centers have adopted and implemented expansion plans that have either been recently completed or are in-progress.

a. Riverside University Health System Medical Center

The approximately 80-acre Riverside University Health System Medical Center campus is located in the central portion of the City, bounded by Alessandro Boulevard to the north, Cactus Avenue to the south, Nason Street to the east, and Lasselle Street to the west. Expansion of the 439-bed medical center was completed in 2019. The expansion project occupies approximately 17.4 acres on the south side of the existing medical center campus, directly north of Cactus Avenue. The recently constructed expansion project includes a new 200,000-square-foot outpatient surgery center, imaging center, and a medical office building linked to the existing medical center.

b. Kaiser Permanente Moreno Valley Medical Center

The approximately 20-acre Kaiser Permanente Moreno Valley Medical Center campus is located in the south-central portion of the City, bounded by Cactus Avenue to the north, Iris Avenue to the south, Oliver Street to the east, and Nason Street to the west. About two-thirds of the campus is developed, including the existing 130,000-square-foot 100-bed hospital building, two medical office buildings totaling approximately 89,500 square feet, and a central utility plant.

In April 2020, the City certified an EIR and a Master Plot Plan to expand the existing medical center within the existing campus footprint. The approved expansion provides for the overall development and expansion of the existing hospital facility, consisting of 1,125,000 square feet of medical service facilities and ancillary uses to be constructed over three phases with a 20-year buildout. Phase 1, that began construction in 2020, would expand the diagnostic and treatment center at the existing hospital and construct a new energy center to contain all major mechanical equipment that would run the hospital facility. Phase 2 includes further expansion of the buildings from Phase 1 as well as the North and East Patient Bed Tower, Medical Office Building No. 3 construction, and parking structure improvements. Phase 3 includes expansion of the West and South Patient Bed Tower, construction of Medical Office Building No. 4, and parking structure improvements. At ultimate project buildout, the state-of-the-art medical center campus would include an approximately 460-bed hospital, hospital support buildings, outpatient medical office buildings, an energy center, and surface/structured parking. Kaiser Permanente anticipates that the project would add approximately 4,000 new healthcare jobs.

2.1.3.5 Destination MoVal: Town Center

In November 2019, the City took a major step in implementing Momentum MoVal with the release of a Request for Proposals entitled "Destination MoVal: Town Center" to transform an approximately 56-acre City-owned site near the center of the community. The site is located at the northwest corner of the intersection of Nason Street and Alessandro Boulevard, south of Cottonwood Avenue and east of Morrison Street. In October 2020, the City approved the sale of the site for development as a mixed-use master-planned Town Center, consisting of commercial, office, residential, and public uses. The project is a public-private partnership involving the City and the development firm, Lewis Acquisition Company.

The Moreno Valley Town Center is intended to provide the City with an attractive new downtown intended to be a destination for residents and visitors, alike. The project envisions commercial uses, including entertainment, hospitality, restaurants, shops, and offices; 300-700 luxury residential units; a section for a civic use, such as an innovation library/technology center; a police substation; public gathering places to host art displays and outdoor music and entertainment; and an area for a major public amenity that would attract more visitors and commerce to Moreno Valley. The project would be designed utilizing interconnected plazas, urban niches, landscaped open space, walkable streets, and high-quality architectural features. The project is currently in design; environmental review and entitlement processing for the Moreno Valley Town Center Project has not yet begun.

2.1.4 2021 MoVal Process

The 2021 MoVal 2040 process was initiated in late 2019 with a series of meetings involving City staff and a professional urban planning consultant (Dyett & Bhatia) retained by the City, and the launching of a website for the 2021 MoVal 2040 (www.MoVal.org/2040). The 2021 MoVal 2040 process included four main phases, described below, followed by the Ruling, and MoVal 2040 Revised Draft EIR.

2.1.4.1 2021 MoVal 2040 (Dated June 15, 2021)

- **Phase 1** focused on identifying issues and opportunities to address during the update of the General Plan and culminated in the preparation of a "Vision and Guiding Principles" that describe shared values within the City and its aspirations for the City's future.
- **Phase 2** explored different options for achieving the Vision and Guiding Principles. Several different alternatives for land use and circulation were evaluated and a preferred concept was identified.
- **Phase 3** involved the creation of a draft 2021 GPU based on the approved vision and concept from prior phases and completion of the environmental review process. Stakeholder interviews with affordable housing developers and advocates were concurrently conducted to gather critical information from interested parties necessary for preparing inform preparation of the Housing Element Update. Preparation of the CAP commenced with a meeting with City staff and Moreno Valley

Electric Utility. In Phase 3, drafts of the 2021 GPU EIR, 2021-29 Housing Element, and CAP were submitted for administrative review by City staff.

- **Phase 4** involves noticed public review of the draft documents and formal hearings before the Planning Commission and City Council prior to adoption of the Project.

Phase 1 of the 2021 GPU focused on community outreach to identify the most important issues to address within the General Plan and to establish a vision for the future of Moreno Valley. This phase included stakeholder interviews, six "pop-up" outreach events, a community-wide online survey, as well as five community workshops (four in-person workshops including an EIR scoping meeting and one virtual workshop). This phase generated input from nearly 700 Moreno Valley community members. Another critical component of Phase 1 was formation of the General Plan Advisory Committee ("GPAC"). The GPAC served as an advisory body to the City Council and included representation from the perspective of residents, businesses, and other community stakeholders in the development of the 2021 GPU. This provided a public forum to ensure that a wide and diverse range of voices and interests were heard and considered in the process. Based on public input received by GPAC and staff recommendations, in February 2020, the City Council approved the Vision and Guiding Principles for the 2021 GPU.

Phase 2 focused on developing and exploring different land use, circulation, and design concepts for the 2021 GPU. These concepts were established based on input from community members and decision-makers, which provided different options by which the City could achieve the Vision and Guiding Principles. A second community-wide survey was conducted and multiple public meetings were held during this phase. The pros and cons of six different concepts were explored and refined with input from the community, GPAC, and Planning Commission. Between December 2019 and May 2020, close to 1,000 community members participated in the 2021 GPU process. In June 2020, the City Council approved the Preferred Plan Concept, which is now part of the proposed 2021 GPU.

During Phase 3, the GPAC reviewed key goals and provided guidance for the policy frameworks of the 2021 GPU, which culminated in the preparation of drafts of the 2021 GPU, 2021-29 Housing Element, and Climate Action Plan, which were submitted for administrative review by City staff.

Phase 4 consisted of environmental review of the Draft 2021 GPU. The 2021 GPU EIR was prepared pursuant to CEQA to identify the significant environmental impacts of implementation of the project along with mitigation measures to address those impacts. The 2021 GPU EIR was made available for public review and comment concurrently with the Draft 2021 GPU, 2021-29 Housing Element, and CAP. The 2021 GPU EIR was completed in May 2021, and included responses to public comments received by the public. The Final 2021 GPU EIR was presented to the Planning Commission and City Council for their respective review and consideration prior to adoption of the Project. The City certified the 2021 GPU EIR and approved the project in June 2021.

2.1.4.2 Ruling

On October 28, 2021, a CEQA lawsuit was filed by the Sierra Club in Riverside County Superior Court challenging the certification of the EIR and approval of the 2021 GPU EIR (*Sierra Club v. The City of Moreno Valley Court Case No. CVRI2103300).* On March 5, 2024, the Court issued a Statement of Decision which held that the 2021 GPU EIR was inadequate for the following reasons:

1. The 2021 GPU EIR compared the air quality and energy usage impacts to those conditions under the buildout of the 2006 General Plan, not the 2018 existing conditions. The ruling states that the 2021 GPU EIR used an incorrect baseline that is a wrong determination of the significance of the impacts that can be expected under the 2040 General Plan Update.
2. The 2021 GPU EIR failed to include projects for the air quality analysis that were not included in the 2016 Air Quality Management Plan (AQMP).
3. The 2021 GPU EIR failed to adequately discuss the impact of the 2040 General Plan Update on sensitive receptors and, in particular, the resulting health impacts.
4. The 2021 GPU EIR failed to adequately analyze and mitigate Toxic Air Contaminants
5. The 2021 GPU EIR failed to analyze greenhouse gas ("GHG") emissions and the significance of their impacts and failed to provide appropriate mitigation measures for an adequate Mitigation Monitoring and Reporting Program ("MMRP").
6. The CAP was inadequate for tiering purposes and should have been treated as a mitigation measure.
7. The 2021 GPU EIR failed to adequately analyze construction, building use, and transportation energy usage, and failed to provide appropriate mitigation measures.

The Court required the City to rescind its certification of the 2021 GPU EIR, but to correct only those portions of the 2021 GPU EIR the Court determined did not comply with CEQA. The doctrine of res judicata thus bars any new claim alleging that any other portion of the 2021 GPU EIR is inadequate. (*Citizens for Open Government v. City of Lodi* (2012) 205 Cal. App. 4th 296). The Court did not find any inadequacy in the 2021 GPU EIR's sections analyzing Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural and Tribal Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services and Recreation, Utilities and Service Systems, and Wildfire. As a result, those sections have not been changed and the law bars any new claim involving those unchanged portions of those sections of the 2021 GPU EIR.

In compliance with the writ issued by the Court, the City has revised portions of Section 4.3, Air Quality; Section 4.6, Energy; Section 4.8 Greenhouse Gas Emissions; Section 4.13, Noise; and Section 4.16, Transportation. The Court did not find any inadequacies in the Draft 2021 GPU EIR in Section 4.5, Cultural and Tribal Cultural Resources[4]; Chapter 5, CEQA

[4] The Ruling did not find that the Chapter on Cultural and Tribal Cultural Resources violated CEQA. It has been revised only to add citations and to show compliance with the requirements of Assembly Bill 52 (2014) and Senate Bill 18 (2004) in connection with the preparation of this Revised Draft EIR.

Mandated Analysis; or Chapter 6, Project Alternatives. Nonetheless, the City has revised those chapters to reflect changes that were required by the Court.

2.1.4.3 MoVal 2040 Revised Draft EIR

To address the Court's finding that the 2021 GPU EIR's analysis of the project baseline and analysis of the Project's impacts to air quality, energy, greenhouse gas emissions were insufficiently clear, the MoVal 2040 Revised Draft EIR, revises sections of the EIR in the following ways:

1. The revised portions of the MoVal 2040 Revised Draft EIR use a 2024 baseline and compares the impacts to those that exist in 2024 to determine the significance of the 2040 General Plan Update.
2. The revised portions of the MoVal 2040 Revised Draft EIR use the 2022 AQMP and projects in Moreno Valley approved or in the pipeline that are not in the 2022 AQMP.
3. The revised portions of the MoVal 2040 Revised Draft EIR identify Toxic Air Contaminants and provide suitable mitigation measures
4. The revised portions of the MoVal 2040 Revised Draft EIR analyze GHG emissions and provide suitable mitigation measures.
5. The revised CAP is appropriate for tiering purposes.
6. The revised portions of the MoVal 2040 Revised Draft EIR identify the various energy usages and provide appropriate mitigation measures.

2.1.5 2040 Vision and Guiding Principles

The Vision and Guiding Principles below form the basis for the Project's policies. These are expressions of the collective hopes and aspirations that members of the Moreno Valley community have for the City's future and they were developed based on the valuable and meaningful input shared by community members throughout the planning process.

2.1.5.1 Dynamic Economy

- **Diversify the local economy**, building on strengths in health care, education, and attracting new businesses.
- Create a **flexible land use framework** that facilitates job growth and livability.
- Create **well-paying jobs** for locals in Moreno Valley to reduce the need for long commutes.
- Ensure **adequate infrastructure** to support local job growth.
- Partner with business, industry and educational institutions on **training and workforce preparedness** programs.
- Promote **tourism and attract visitors**, leveraging natural assets like Lake Perris.
- Improve **socioeconomic conditions** for all Moreno Valley residents.

2.1.5.2 Vibrant Gathering Places

- Foster **Town Centers** as places for locals and visitors to shop, dine, do business, and have fun.
- Create **inviting gateways** into Moreno Valley from freeways and major roadways.
- Provide **sports, recreation, and cultural facilities** that provide a range of options for youth, families, and seniors and attract visitors to Moreno Valley.
- Design and program public spaces that reflect Moreno Valley's **cultural diversity**.

2.1.5.3 Community Identity

- Build local pride and a **strong sense of place.**
- Make Moreno Valley a **Destination City** with a modern, innovative brand and become a model community where people choose to **live, work, and play**.
- Provide **activities for youth and families** to build community bonds.
- Support churches, community groups, and non-profit organizations to deliver **community services**.

2.1.5.4 Livable Neighborhoods

- Recognize that **housing affordability** is critical so people can grow up and grow older in Moreno Valley.
- Provide housing adapted to our **future needs and lifestyles**.
- Create opportunities for **neighborhood interaction**.
- Prioritize **safety** on roads, near schools, in public places, and in neighborhoods.
- Promote **active lifestyles** with trail connections, parcourses, and other recreational amenities.
- Prioritize clean air, water, fresh food, and **community health**.
- Maintain roads in good condition, improve traffic circulation, and plan for new technology that **optimizes mobility**.
- Ensure Moreno Valley is **livable and welcoming** for seniors, veterans, and other special needs groups.

2.2 Existing Physical Site Conditions

2.2.1 Land Use

Table 2-1 presents a summary of existing land uses based on 2024 data from the City and Riverside County. Figure 2-3 presents existing land uses within the Planning Area. Below is an overview of existing land use:

- **Residential** land uses account for nearly 32 percent (10,479 acres) of the land uses within the City limits, concentrated primarily in the western and central portions of the City where most development has historically occurred. Single-family housing accounts for the bulk of all residential uses within the city, while multi-family housing accounts for less than 3 percent. Established single-family neighborhoods include Hidden Springs, Sunnymead Ranch, and Moreno Valley Ranch. Single-family attached and multi-family housing is generally present in all residential neighborhoods, with the highest concentrations just south of the commercial stretch of Sunnymead Boulevard between Heacock Street and Perris Boulevard.

- **Commercial** land uses, including retail, office, and lodging, account for 2.3 percent (762 acres) of the land uses within the Planning Area, with no commercial uses located within the City's SOI. Within the City limits, commercial land uses account for 3 percent (994 acres) of Citywide land use. Commercial uses are primarily concentrated in shopping centers such as the Moreno Valley Mall, TownGate Center, Moreno Valley Plaza, The District, Stoneridge Towne Center, Moreno Valley Auto Mall, Moreno Beach Plaza, Alessandro Plaza, and Sunnymead Towne Center. These areas include a mix of restaurants, retail stores, hotels, and personal services depending on the location. The Moreno Valley Mall and TownGate Highlands, Crossing, and Promenade at the western end of the City have the largest concentrations of commercial development.

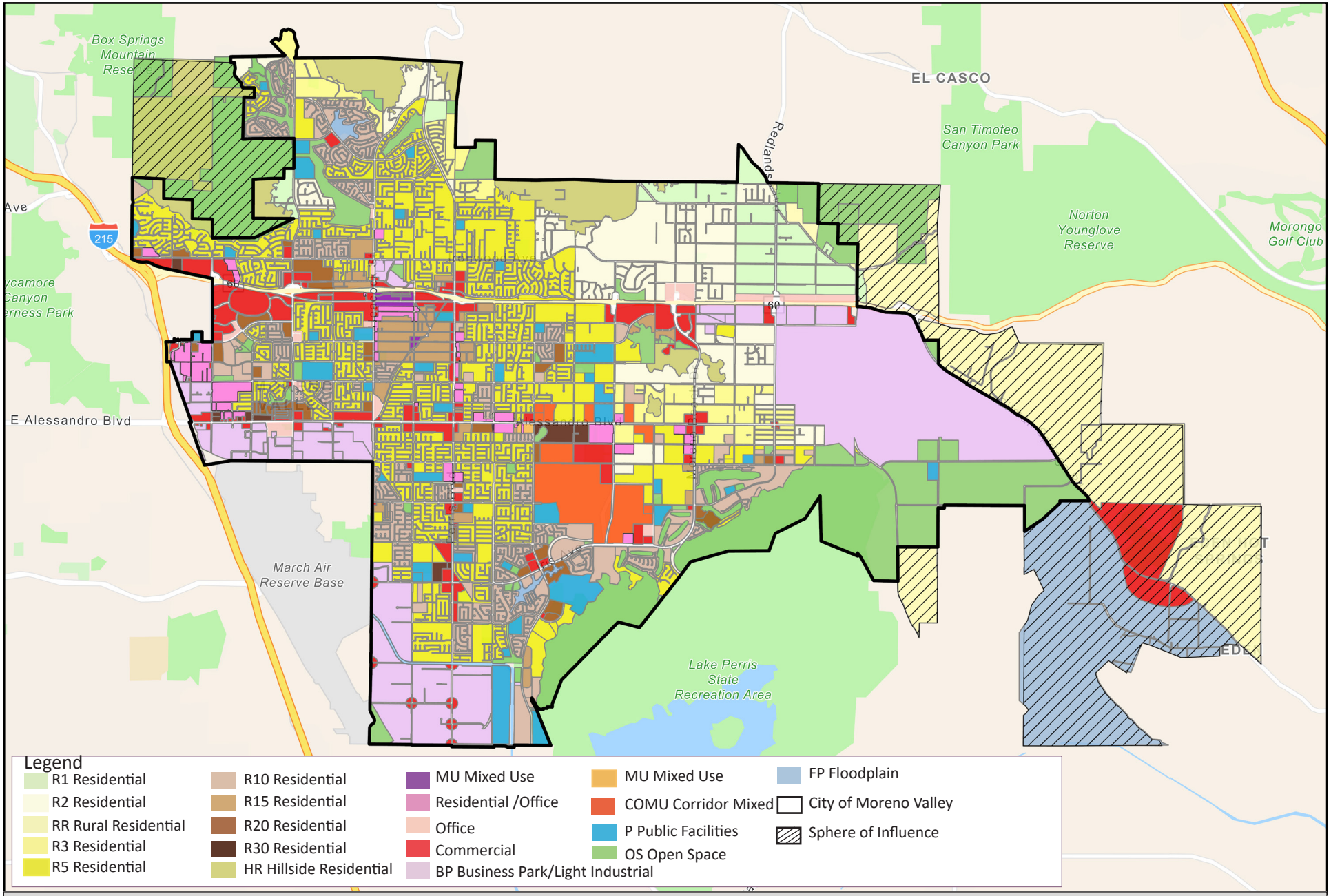


FIGURE 2-3: EXISTING GENERAL PLAN LAND USE

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

- **Industrial** land uses, including light industrial and general industrial, represent 3.7 percent (1,584 acres) of the Planning Area and 4.8 percent of the Citywide land use, with no industrial land uses located within the SOI. Industrial land uses in Moreno Valley are clustered around three main areas: (1) between Alessandro Boulevard and Cactus Avenue, and Heacock Street and Elsworth Street (including the area formerly known as Centerpointe Business Park), (2) Moreno Valley Industrial Area, and (3) the State Route 60 ("SR 60") Business Park Area. These existing industrial land uses are sited near the periphery of the City, proximate to freeway network access.

- **Public and Community Facilities** land uses occupy approximately 4.1 percent (1,756 acres) of the Planning Area. Within the City limits, public and community facilities land uses account for 5.3 percent (1,752 acres) of Citywide land use. This includes a variety of public or semi-public lands, such as hospitals/care facilities (e.g., Riverside University Health System Medical Center, Kaiser Permanente Medical Center), churches/religious facilities, schools/educational facilities (e.g., Moreno Valley Unified School District, Val Verde Unified School District, Moreno Valley College), branches of government, and utilities. Schools/education facilities comprise the majority of this existing land use category with 866 acres of land, followed by utilities with 505 acres of land. The varied land uses of this category are dispersed throughout the City with more locations in the western and southern portions of the City.

- **Parks and Recreation** land uses, including parks and recreation spaces, greenways and open space, conservation lands, and golf courses, comprise approximately 19.4 percent (8,317 acres) of the Planning Area. Approximately 40 percent of the SOI are conservation lands. In the City, parks and recreation land uses account for about 12.5 percent (4,100 acres) of Citywide land, mostly conservation lands and greenways/open space. Moreno Valley has several parks such as Gateway Park, Sunnymead Park, Woodland Park, Kennedy Park, the Equestrian Park and Nature Center, and the Hound Town Dog Park. These parks and other recreation areas are dispersed throughout the City.

- **Agriculture** land accounts for less than 1 percent of land within the City limit and approximately 38 percent of land within the SOI, although there is very limited active agricultural production within the SOI.

- **Vacant** land accounts for 27 percent (8,902 acres) of the land within the City limit. Vacant land is primarily located in the eastern part of the City, both north and south of SR-60. There are several major approved/in-progress developments sited on vacant lands. Within the SOI, approximately 13.7 percent (1,362 acres) of land is vacant.

See Section 4.11, Land Use/Planning, for a complete discussion of the existing land use setting of the Planning Area.

Table 2-1
Existing Land Uses in Planning Area

	City of Moreno Valley		Sphere of Influence		Total Planning Area	
Existing Land Use Category	Acres	Percent	Acres	Percent	Acres	Percent
Residential	10,479.4	31.8%	337.4	3.4%	10,816.8	25.2%
Single-Family Residential	9,375.2	28.4%	59.8	0.6%	9,435.0	22.0%
Multi-Family Residential	621.8	1.9%	-	0.0%	621.8	1.4%
Duplex/Two-Family Residential	234.6	0.7%	-	0.0%	234.6	0.5%
Mobile Home Parks	146.0	0.4%	-	0.0%	146.0	0.3%
Condominium/Townhomes	70.7	0.2%	-	0.0%	70.7	0.2%
Ag Residential	31.0	0.1%	277.7	2.8%	308.6	0.7%
Commercial	993.7	3.0%	-	0.0%	993.7	2.3%
General/Retail Commercial	852.0	2.6%	-	0.0%	852.0	2.0%
Office	89.7	0.3%	-	0.0%	89.7	0.2%
Service Station	28.9	0.1%	-	0.0%	28.9	0.1%
Hotel/Motel/Lodging Commercial	23.0	0.1%	-	0.0%	23.0	0.1%
Industrial	1,583.6	4.8%	-	0.0%	1,583.6	3.7%
General Industrial	1,119.4	3.4%	-	0.0%	1,119.4	2.6%
Light Industrial	464.1	1.4%	-	0.0%	464.1	1.1%
Public & Community Facilities	1,752.4	5.3%	3.3	0.0%	1,755.7	4.1%
Schools/Educational Facilities	866.3	2.6%	-	0.0%	866.3	2.0%
Utilities	502.0	1.5%	3.3	0.0%	505.4	1.2%
Church/Religious Facilities	161.3	0.5%	-	0.0%	161.3	0.4%
Public Facilities	115.0	0.3%	-	0.0%	115.0	0.3%
Hospitals/Care Facilities	107.8	0.3%	-	0.0%	107.8	0.3%
Parks & Recreation	4,114.5	12.5%	4,217.4	42.5%	8,331.9	19.4%
Conserved Lands	2,702.8	8.2%	3,973.0	40.1%	6,675.7	15.6%
Greenways/Open Space	861.3	2.6%	-	0.0%	861.3	2.0%
Golf Course	273.8	0.8%	244.5	2.5%	518.3	1.2%
Park Facilities	276.7	0.8%	-	0.0%	276.7	0.6%
Agriculture	189.4	0.6%	3,779.2	38.1%	3,968.6	9.2%
Other	13,885.7	42.1%	1,582.3	16.0%	15,468.0	36.0%
Vacant	8,902.3	27.0%	1,361.8	13.7%	10,264.1	23.9%
Transportation/Roads/ Right-of-Way	4,983.4	15.1%	220.5	2.2%	5,203.9	12.1%
Total	**32,997.0**	**100.0%**	**9,919.8**	**100.0%**	**42,916.7**	**100.0%**

SOURCE: City of Moreno Valley, 2025.

2.2.2 Aesthetic/Topographical Features

Moreno Valley is located in Riverside County in an east-west oriented valley bordered by the Box Springs Mountain Range to the north, the Badlands Mountain Range, also known as San Timoteo Badlands, to the northeast, and the Bernasconi Hills with Lake Perris to the southeast. Moreno Valley connects to the San Jacinto Valley in the southeast between the Badlands Mountain Range and Bernasconi Hills. To the west, lower hill ranges including Sycamore Canyon are located between the cities of Riverside and Perris. The Saddleback formation, which is part of the Santa Ana Mountain Range, lies further in the west beyond Lake Mathews.

Within the City, several hills and rock formations present natural landmarks, particularly on the east side between Moreno Beach Drive and Nason Street just south of SR-60, at Alessandro Boulevard and Lasselle Street, and along the northern edge of the City near Ironwood Avenue. The terrain gradually slopes from north to south, starting from the northern mountain range to the southern border of the City with an elevation change of approximately 300 feet between SR-60 and Iris Avenue. The nearest mountain ranges as well as the more distant San Bernardino Mountains, Santa Ana Mountains, and San Gabriel Mountains are visible from many locations in Moreno Valley, particularly higher elevations in the City.

Moreno Valley has a decentralized structure with commercial, retail, public and institutional uses distributed across the Planning Area, typically located along major arterials and at intersections of major arterials. Large-scale retail centers are concentrated along SR-60, with smaller neighborhood retail centers interspersed throughout the City fabric. Existing structures within the Planning Area consists primarily of auto-oriented low-density development. With the exception of medical facility buildings, most buildings in Moreno Valley are one or two stories high, with some multi-family buildings or hotels going up to four stories. Large distributions centers have building heights of up to 50-60 feet and building lengths generally between 600 and 900 feet.

2.2.3 Air Quality and Climate Conditions

The Planning Area is located approximately 40 miles northeast of the Pacific Ocean, within Riverside County between the Santa Ana Mountains and the San Jacinto Mountains. Air quality in the county is influenced by both topographical and meteorological conditions. The Planning Area, like other inland valley areas in southern California, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The March Field climate monitoring station (ID 045326) is located immediately southwest of the Planning Area and the Perris climate monitoring station (ID 046816) is located approximately five miles south of the Planning Area. Based on measurements taken at these climate monitoring stations, the average annual precipitation is 8 to 10 inches, falling primarily from November to April (Western Regional Climate Center 2020). Overall annual temperatures in the Planning Area average about 62 degrees Fahrenheit (°F), winter low temperatures average about 36°F, and summer high temperatures average about 93°F.

The Planning Area is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The 6,745-square-mile Basin encompasses Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and is bound by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east, respectively, and San Diego County to the south. The Basin is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except 8-hour ozone and 2.5-micron particulate matter (PM2.5) standards. The Basin is designated as in nonattainment for State air quality standards for 8-hour ozone and PM2.5, and additionally is in nonattainment of State 10-micron particulate matter (PM10) standards. See Section 4.3, Air Quality, for a complete discussion of the existing air quality setting of the Planning Area.

2.2.4 Cultural Resources and Tribal Cultural Resources

Native American Indians were the first inhabitants of the Moreno Valley area. They hunted game, gathered seeds, and left evidence in rocks that they used to grind seeds. Early settlers traveled through the area from northern Mexico to various California Mission settlements along a trail charted by Juan Bautista de Anza in 1774. The trail passed through the San Jacinto Valley, the Perris Valley, and southwest Moreno Valley. Moreno Valley and the rest of California became part of the United States in 1850. The Moreno Valley area began to develop in the late 1880s with the establishment of the Alessandro and Moreno settlements. The community of Moreno was built around the intersection of Redlands Boulevard and Alessandro Boulevard. The community of Alessandro was located within the limits of present-day MARB.

Urban development began after the establishment of the March Air Force base in 1927, and the unincorporated communities of Sunnymead, Moreno, and Edgemont grew up around the base. From 1957 to 1989, the present-day Moreno Valley Mall was the site of the Riverside International Raceway, a motorsports racetrack and road course considered one of the finest in the country in its day.

The area experienced a period of rapid population growth between 1970 and 1992, fueled by the construction of new homes and businesses. During that period, the population went from approximately 19,000 residents to over 118,000. In 1984, the communities of Edgemont, Sunnymead, and Moreno came together to form the City of Moreno Valley and the first General Plan was adopted in 1986 to guide future growth and development.

The records search completed for the Planning Area identified a total of 110 historic-era resources, 227 prehistoric resources, and 12 multi-component (prehistoric and historic) resources. The records search also identified 25 built environment resources. Historic-era site types include adobe buildings, canals/aqueducts, cisterns, wells, foundations, walls, trash scatters, farms/ranches, highway, military property, single-family property, and multi-family property. Prehistoric sites include bedrock milling features, cairns, rock shelters, lithic scatters, ground stone scatters, ceramic scatters, and rock art. See Section 4.5, Cultural and

Tribal Cultural Resources, for a complete discussion of the existing cultural setting of the Planning Area.

2.2.5 Geology and Soils

The City lies in the northern portion of the Peninsular Ranges Physiographic Province of California, at the eastern margin of a structural block known as the Perris Block. This structural block is a mass of granitic rock, generally bound by the San Jacinto Fault, the Elsinore Fault, and the Santa Ana River. The geologic and seismic setting of Moreno Valley is dominated by the proximity of the Holocene-active San Jacinto Fault, which traverses the City's eastern boundaries. The potential for major earthquake damage to Moreno Valley is from activity along this fault zone.[5]

The City is located within the seismically active southern California region. Earthquakes resulting from fault movement can result in surface rupture along an active or potentially active fault. The San Jacinto Fault Zone, which has been categorized as an Alquist-Priolo Earthquake Fault Zone, traverses the northeastern boundary of the City. The San Jacinto Fault Zone is composed of several parallel faults that together constitute the zone.

The majority of the City is classified as having low or moderate potential for liquefaction susceptibility. Small amounts of land within the western and southern portion of the City are classified as having high potential for liquefaction susceptibility, and a small amount of land along the southern border is classified as having very high potential for liquefaction susceptibility. However, geotechnical analysis completed for recent site-specific projects located within the area identified as having a high liquefaction potential north of Cactus Avenue did not identify any soils within the proposed footprints with high potential for liquefaction. The majority of the City is relatively flat and has been assigned a landslide susceptibility class of 0 (No Risk) by the California Geological Survey. However, some areas within the northern, northeastern, and southeastern portions of the City and within the SOI have been assigned landslide susceptibility classes ranging from V (Moderate Risk) to X (High Risk). Some areas within the central portion of the City have also been assigned a landslide susceptibility classes ranging from V (Moderate Risk) to X (High Risk). See Section 4.7, Geology/Soils for a complete discussion of the existing geologic setting of the Planning Area.

2.2.6 Hydraulic Conditions

The City is located within the Santa Ana River and the San Jacinto River watersheds. The Santa Ana River is the largest river in the south coast region, with a length of 100 miles and approximately 2,700 square miles of watershed area. The river exits the San Bernardino Mountains and continues westward to the Prado Dam, through the Santa Ana River Canyon, and then flows to the ocean. In addition to being a major flood control facility, the river also

[5] City of Moreno Valley, July 2006, Moreno Valley 2006 General Plan Final Program EIR, https://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/5_6-geo-soils.pdf. Accessed February 14, 2025.

serves as a means by which groundwater basins are recharged and provides important wildlife habitat. The San Jacinto River drains approximately 540 square miles to the Railroad Canyon Reservoir (Canyon Lake) which discharges into Lake Elsinore, which discharges into a tributary of the Santa Ana River. Discharges from the two lakes are very rare.

Surface water quality in the Planning Area is regulated by the Santa Ana Regional Water Quality Control Board ("RWQCB") Region 8. The Santa Ana Regional Water Quality Control Board Basin Plan ("Basin Plan") (California Water Boards, Santa Ana – Region 8 2008) establishes water quality standards for all the ground and surface waters of the region. The Santa Ana RWQCB does not identify any water bodies within the Planning Area or which the Planning Area drains into as currently lists on the 303(d) list. The Planning Area lies within the San Jacinto groundwater basin. See Section 4.10, Hydrology/Water Quality, for a complete discussion of the existing hydrological setting of the Planning Area.

2.2.7 Noise

Moreno Valley is subject to typical urban noises such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. The City also has several transportation-related noise sources, including airport noise, railroad operations, major arterials, Interstate 215 (I-215) and SR 60. Noise sources that are not directly related to transportation include noise from commercial and industrial centers, construction, and property maintenance activities.

Ambient noise levels were measured within the Planning Area to provide a characterization of the variability of noise and to assist in determining constraints and opportunities for future development. Ten 15-minute daytime noise level measurements were conducted throughout the Planning Area on Thursday, August 8, 2024 that identified average measured noise levels ranging from 52.7 A-weighted decibels one-hour equivalent sound level [dB(A) L_{eq}] to 67.3 dB(A) $L_{eq.}$

MARB is a joint-use civilian and military facility located southwest of the Planning Area. MARB is bordered by the City to the east/northeast, City of Riverside to the northwest, the City of Perris to the south, and unincorporated Riverside County to the west. The Airport Influence Area (AIA) extends up to 9 miles north, west, and east of the main runway and 14 miles to the south, and covers land within unincorporated Riverside County and the cities of Menifee, Moreno Valley, Perris, and Riverside. Land uses in the immediate vicinity of MARB generally consist of public/institutional uses to the west, office/business park and industrial uses to the northwest, office/business park and commercial uses to the north, open space and residential uses to the northeast, open space, business park, and industrial uses to the southeast, and open space, agricultural uses, office/business park, industrial, and residential to the south. See Section 4.13, Noise, for a complete discussion of the existing noise setting of the Planning Area.

2.2.8 Transportation

The City is connected regionally by SR 60 and I-215. SR 60 bisects the City and provides east-west connectivity to surrounding metropolitan areas. I-215 borders the City on the west and provides north-south connectivity. In the mid-1990s, the County of Riverside, with the cooperation with the City of Murrieta initiated a project to extend the Clinton Keith Extension Project from I-215 to SR 79. The Clinton Keith Road was completed in August 2024, creating six lanes from I-215 to SR 79. According to the existing 2006 General Plan, there are five basic functional systems that make up the local roadway system: divided major arterials, divided arterials, arterials, minor arterials, and collector streets. The classification of streets is based on a functional hierarchy defined by the number of travel lanes, roadway width (curb to curb), right-of-way (public property line to public property line), and traffic volumes. The network of streets provides connectivity within the City and to neighboring communities. Pedestrian facilities in Moreno Valley consist of sidewalks and crosswalks, along with multi-use trails. Most residential and commercial developments provide sidewalks on public streets and internal circulation. Areas with no existing sidewalks are mainly located in undeveloped areas or in a more rural area in the eastern portion of the city and along the City boundary.

The Riverside Transit Agency (RTA) provides the majority of public transportation within the Planning Area via fixed route and paratransit bus services. RTA provides routes within the City that connect to major destinations such as the Moreno Valley/March Field Metrolink Station, Perris Station Transit Center, University of California, Riverside (UCR), and Moreno Valley Mall. Major Moreno Valley bus routes include Routes 11, 16, 18, 19, 19A, 20, and 31. In addition, RTA has one commuter link express bus route within the City. Route 208 connects the cities of Temecula, Murrieta, Perris, Moreno Valley, and Riverside. Commuter link express bus routes provide peak hour services for commuters in the morning and evening on weekdays. Route 31 also provides connections to Beaumont, Banning, Hemet, and San Jacinto and passengers can transfer in Beaumont to Sunline Route 10 for service to the Coachella Valley. RTA also provides Dial-A-Ride services for seniors and persons with disabilities.

Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority (SCRRA), providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and downtown Los Angeles. For Moreno Valley, the Moreno Valley/March Field Metrolink Station is located less than one-half mile west of the City limits. The 91/Perris Valley Line train services Metrolink stations in the cities of Perris, Riverside, Corona, Fullerton, Buena Park, Norwalk/Santa Fe Springs, and Los Angeles. See Section 4.16, Transportation, for a complete discussion of the existing transportation setting of the Planning Area.

2.2.9 Utility and Services

Water service in Moreno Valley is provided by two agencies. Eastern Municipal Water District (EMWD) supplies most of the City, except for a 430-acre area on the west side which is served by Box Springs Mutual Water Company. Wastewater service in Moreno Valley is

provided by two agencies. EMWD provides collection and treatment for most of the City, while the Edgemont Community Services District serves a 430-acre area in the western part of the City that includes the Edgemont neighborhood.

Southern California Edison (SCE) and the Moreno Valley Electric Utility ("MVU") provide electricity to the City. SoCalGas provides the City with natural gas service. SoCalGas' service territory encompasses approximately 20,000 square miles and more than 500 communities. The City provides trash, recycling, and special waste handling services to residents and businesses through a exclusive franchise agreement with Waste Management. No other haulers are authorized to operate within the City. The majority of solid waste generated within the City is disposed of at Badlands Sanitary Landfill, located north of SR 60 and west of Interstate 10 off Ironwood Avenue. Two other landfills within the county of Riverside have the capacity to serve the City; however, a majority of waste is brought to the Badlands Sanitary landfill. See Section 4.17, Utilities/Service Systems, for a complete discussion of the existing providers serving the Planning Area.

2.2.10 Vegetation

The majority of land within the City consists of Developed/Disturbed Land. Natural vegetation is primarily located in the eastern portion of the City, as well as along the southeastern and northern boundaries of the City. Undeveloped lands within the City are typically comprised of disturbed lands and non-native grasses due to the prior history of cultivation. Small pockets of riparian vegetation occur within urban canyons and native habitats and species that once inhabited the area are largely limited to areas around the fringes of the City where lands are in proximity to surrounding conserved natural areas. A number of nearby natural areas exist adjacent to the City. The San Jacinto Wildlife Area is approximately 20,126 acres of wildlife preserve in central Riverside County noted for its diversity of migratory birds.[6] The San Jacinto Wildlife Area is located at the southeast corner of the Planning Area, and accounts for approximately 3,380 acres within the Planning Area. Other conserved lands surrounding the City include the Lake Perris Recreation Area located adjacent to the southern City limits, and the Box Springs Mountain Reserve Park located northwest of the City limits. See Section 4.4, Biological Resources, for a complete discussion of the existing vegetation setting of the Planning Area.

2.2.11 Wildlife

Varied topography and landforms including Box Springs Mountain in the north and the Badlands east of the City provide for a diversity of wildlife species. Mammals such as mule deer can be found in the Box Springs Mountains and in the Badlands. Large carnivores, such as coyotes, bobcats, badgers, and gray fox, have been found in the undeveloped portions of the City. Opossums, raccoons, skunks, cottontail rabbits, and rodent species are common to the Planning Area. A wide variety of reptiles are found in the Planning Area. Owls, hawks,

[6] California Department of Fish and Wildlife, 2025, San Jacinto WA Land Management Plan, https://wildlife.ca.gov/Lands/Planning/San-Jacinto-Valley-WA. Accessed February 12. 2025.

and other birds of prey can be seen at various times throughout the year or during migration periods. See Section 4.4, Biological Resources, for a complete discussion of the existing wildlife setting of the Planning Area.

3

Chapter 3
Project Description

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 3, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

Consistent with Section 15168 of the California Environmental Quality Act ("CEQA") Guidelines, this Revised Draft Program Environmental Impact Report ("Revised Draft EIR") provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, actions, and projected buildout of the following three planning documents:

- 2024 General Plan Update ("GPU"),
- Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and
- 2024 Climate Action Plan ("CAP")

These three separate planning documents are collectively referred to as the MoVal 2040 Project ("Project").

As described in Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria. The Project, which is the subject of this Revised Draft EIR, consists of long-term plans that will be implemented as policy documents guiding future development activities and City of Moreno Valley ("City") actions.

California Government Code Section 65300 et seq. mandates that all counties and cities prepare a general plan that establishes policies and standards for future development, housing affordability, and resource protection. State law encourages cities to keep general plans current through periodic updates. The Project includes an update to the 2006 General Plan that would guide future land use decisions in Moreno Valley, provide a long-term vision for the City, and provide policies and implementing actions that would allow the City to achieve this vision over the life of the General Plan. The General Plan would be the primary policy document guiding growth and development within the City through the planning horizon year of 2040. Together with the Zoning Ordinance and related sections of the Municipal Code, the Project would serve as the basis for planning-related decisions made by City staff, the Moreno Valley Planning Commission, and the Moreno Valley City Council.

The Project includes preparation of a CAP. The CAP is a community-wide strategy for reducing GHG emissions for the purpose of adapting to the effects of climate change. Preparation of the CAP includes establishing the City's GHG reduction targets, as well as specific strategies and implementing actions to achieve these targets.

This chapter introduces the objectives of the Project and includes a description of the existing regional and local Project setting, an outline of the projected population and employment growth rates, and development patterns through the planning horizon year. Furthermore, this chapter presents the proposed General Plan land use diagram, key data tables, and a description of policy direction for the Project. This Project description provides the basis for the environmental analysis in Chapter 4 and alternatives analysis in Chapter 5.

3.1 Statement of Objectives

The Project includes the MoVal 2040 Revised Draft EIR and preparation of the CAP. As required under the CEQA Guidelines, this section provides a description of the Project's purpose and objectives (Section 15124 of the CEQA Guidelines).

3.1.1 Purpose

California Government Code Section 65300 requires each city and county in California to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which…bears relation to its planning." The Moreno Valley General Plan can be considered the City's development constitution, containing both a statement of the community's vision of its long-term development, as well as the policies to support that vision by guiding the physical growth of the City. The Project contains policies to guide decision-making related to land use and community character; economic development; transportation; parks and public services; safety; noise; environmental justice; healthy communities; open space and resource conservation; and housing. The Project is a document to be adopted by the City Council that serves the following purposes:

- Establish a long-range vision that reflects the aspirations of the community and outlines steps to achieve this vision;

- Establish long-range development policies that will guide City departments, Planning Commission, and City Council decision-making;
- Provide a basis for judging whether specific development proposals and public projects are in harmony with plan policies;
- Plan in a manner that meets future land needs based on the projected population and job growth;
- Allow City departments, other public agencies, and private developers to design projects that will enhance the unique character of the community, preserve environmental resources, and minimize hazards; and
- Provide the basis for establishing and setting priorities for detailed plans and implementing programs, such as the zoning ordinance, subdivision regulations, specific and master plans, and the Capital Improvement Program.

The 2024 GPU would replace the existing 2006 General Plan and all of its elements, excluding the Housing Element which was certified by the State of California's Housing and Community Development Department on October 11, 2022, and establish a planning and policy framework that extends to a horizon year of 2040.

The CAP establishes a community-wide strategy for reducing GHG emissions and adapting to the effects of climate change. The CAP also contains actions that demonstrate the City's commitment to achieving the State's GHG reduction targets through monitoring and reporting processes to ensure that targets are met, and options for reducing GHG emissions beyond the State's requirements.

3.1.2 Objectives

As required under Section 15124 of the CEQA Guidelines, the following specific objectives have been established for the Project:

- Provide a flexible land use framework that can accommodate job growth in a variety of industries over time while enhancing quality of life in the community;
- Build a strong, diverse economy with well-paying jobs in the City for local residents, in order to reduce the need for long commutes and achieving a better balance of jobs-to-housing;
- Ensure a sustainable, measured rate of growth and efficient delivery of public services;
- Create a destination Downtown Center that makes Moreno Valley a destination city with a modern, innovative brand and that establishes Moreno Valley as a model community where people choose to live, work, and play;
- Focus new residential and commercial development in corridors to support more frequent and reliable transit service; promote walking and biking; and reduce vehicle miles travelled;

- Foster development of gateways at key entry points into the community that announce arrival with attractive architecture and inviting uses to build Moreno Valley's sense of place;
- Facilitate development of a range of housing options that provides for the needs of current and future residents, including people of all ages, abilities, and incomes levels;
- Accommodate the City's 2021-2029 Regional Housing Needs Allocation ("RHNA") through development that is consistent with the approved 6th Cycle Housing Element;
- Reduce community-wide GHG emissions consistent with Statewide targets;
- Foster vibrant gathering places for locals and visitors to shop, dine, do business, and have fun, providing a range of social interaction opportunities for youth, families, and seniors;
- Enhance neighborhood livability through promoting active lifestyles with indoor and outdoor recreational amenities and prioritizing clean air, water, fresh food, and community health; and
- Encourage mindful stewardship of water, energy, and other environmental resources, and explore technological advancements as a way to enhance current and future needs and a diversity of lifestyles.

3.2 Project's Component Parts

The Project contains the following three separate planning documents.

- The 2024 GPU would incorporate changes to the policy framework and land use designations of the existing 2006 General Plan to guide development and conservation through 2040 and comply with new State laws.
- Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments.
- The 2024 CAP would establish a community-wide strategy for reducing GHG emissions and adapting to the effects of climate change.

First and foremost, the Project responds to community aspirations expressed throughout the MoVal 2040 process. Secondly, the 2024 GPU responds to new legal requirements that have come into force, including requirements for addressing geologic hazards, flooding, wildland and urban fires, and environmental justice. A description of both of these separate documents is provided below.

3.2.1 General Plan Update

3.2.1.1 Plan Organization

The organizational structure of the existing 2006 General Plan has been modified in the 2024 GPU. Additionally, some elements have been reorganized and the 2024 GPU adds optional

elements that reflect local community priorities identified through stakeholder interviews and public outreach not included in the existing 2006 General Plan.

The 2024 GPU addresses the eight state-mandated elements of Land Use, Circulation, Housing, Conservation, Open Space, Noise, Safety, and Environmental Justice, supplemented with three optional elements: Economic Development, Community Character, and Healthy Community.

Each element of the 2024 GPU characterizes issues and opportunities, and then presents goals, policies, and actions that would address them. Within this structure, goals describe general desired results that the community seeks to create through the implementation of the 2024 GPU. The policies and actions establish the "who," "how," and "when" for carrying out the "what" and "where" of the goals.

The chapters of the 2024 GPU are summarized as follows.

- **Chapter 1: Introduction.** This chapter outlines the purpose and uses of the General Plan; provides a community profile; recaps the General Plan update process; summarizes the Vision and Guiding Principles for Moreno Valley's future growth and development; and provides an overview of the General Plan organization, relationship to other plans, and requirements for administration.

- **Chapter 2: Land Use and Community Character.** This element satisfies the legal requirements for a General Plan land use element and provides a map showing the distribution and location of land uses. It also includes standards for density and intensity and considers growth impacts on military readiness. This element combines land use, a required topic by state law, and community character, an optional topic that is a clear priority for the community based on outreach to decision makers and its relationship to economic development. This element describes the existing land use pattern and provides an explanation of the General Plan's approach to citywide growth. The goals and policies in this chapter provide the framework for land use and development in the City. Community character topics addressed include the city's structure, gateways, corridors, centers (with a special focus on downtown), neighborhoods, design of parks and public spaces, and hillside development. The key goals for the Land Use and Community Character Element include:
  - Establish an identifiable City structure and a flexible land use framework that accommodates growth and development over the planning horizon;
  - Foster vibrant gathering places for Moreno Valley residents and visitors;
  - Build a distinctive sense of place and pride in Moreno Valley; and
  - Expand the range of housing types in Moreno Valley and ensure a variety of options to suit the needs of people of all ages and income levels.

- **Chapter 3: Economic Development.** This optional element provides an overview of the population and employment context in Moreno Valley, and outlines goals and policies to support a strong, dynamic economy including:

- Diversify and grow the local economy;
- Strengthen and retain existing businesses;
- Enhance Moreno Valley's profile and competitive position; and
- Promote education and workforce development.

- **Chapter 4: Circulation.** This element satisfies the legal requirements for addressing the topic of circulation and provides a circulation diagram identifying major thoroughfares; transportation routes for vehicles, transit, bicycles, and pedestrians; and also military airports. The element also includes policies for "complete streets," which would provide a balanced, multimodal transportation network serving all users and abilities. The key goals for the Circulation Element include:
  - Strengthen connections to the regional transportation network;
  - Plan, design, construct, and maintain a local transportation network that provides safe and efficient access throughout the City and optimizes travel by all modes;
  - Manage the City's transportation system to minimize congestion, improve flow, and improve air quality;
  - Provide convenient and safe connections between neighborhoods and destinations within Moreno Valley;
  - Enhance the range of transportation options in Moreno Valley and reduce vehicle miles travelled; and
  - Provide for safe, efficient goods movement by road, air, and rail.

- **Chapter 5: Parks and Public Services.** This element satisfies legal requirements for addressing the topics of open space for outdoor recreation and the location and extent of public utilities, including water, sewer, stormwater, and electricity. This element also provides background information and a policy framework related to police and fire services, schools, community facilities and libraries, and parks and recreation. The key goals for the Parks and Public Services Element include:
  - Provide and maintain a comprehensive system of quality parks, multi-use trails, and recreational facilities to meet the needs of Moreno Valley's current and future population;
  - Locate, design, and program public facilities as contributors to neighborhood quality of life;
  - Provide for responsive police and fire services that ensure a safe and secure environment for people and property; and
  - Provide for utilities and infrastructure to deliver safe, reliable services for current and future residents and businesses.

- **Chapter 6: Safety.** This element satisfies the legal requirements for addressing the topic of safety and community protection from wildfires, flooding, seismic events, landslides, dam inundation, and climate change. This element includes background

information, policies, and standards for community protection from natural and human-made disasters, including promoting safety and compatibility with the March Air Reserve Base ("MARB") adjacent to City limits. The key goals for the Safety Element include:

- Protect life and property from natural and humanmade hazards;
- Provide effective response to disasters and emergencies;
- Build community resilience to climate change; and
- Minimize airport safety hazards and promote compatibility with MARB operations.

- **Chapter 7: Noise.** This element satisfies the legal requirements for addressing the topic of noise and identifies noise sources, quantifies future noise levels through a contour map, and establishes measures to address noise issues. The key goals for the Noise Element include:
  - Design for a pleasant, healthy sound environment conducive to living and working; and
  - Ensure that noise does not have a substantial, adverse effect on the quality of life in the community.

- **Chapter 8: Environmental Justice.** This element satisfies the legal requirements in planning for Senate Bill ("SB") 535 (2012)-identified "Disadvantaged Communities" including addressing the topics of air quality and pollution exposure; safe and sanitary homes; public facilities and physical activity; healthy food access; and civic engagement and investment prioritization. The key goals for the Environmental Justice Element include:
  - Reduce pollution exposure and improve community health;
  - Promote safe and sanitary housing for Moreno Valley residents of all ages, abilities, and income levels;
  - Expand access to high-quality, fresh, and healthy food; and
  - Encourage the active participation of local residents and businesses in civic life.

- **Chapter 9: Healthy Community.** This optional element is closely linked to the Environmental Justice Element and contains background information and policies aimed to focus engagement to target youth and address linguistic isolation; provide opportunities for social connections; provide an array of health care options; and promote businesses that support healthy and active lifestyles. The key goals for the Healthy Community Element include:
  - Promote the health and well-being for those who live, work, and play in Moreno Valley;
  - Engage community members and community partners in efforts to create a healthier Moreno Valley; and

- Promote a variety of businesses that help support community health.

- **Chapter 10: Open Space and Resource Conservation.** This element satisfies the legal requirements for addressing the topic of conservation including natural resources (water, air, biological), tribal cultural resources, and open space for environmental and scenic conservation. This element includes background information and policies relating to resource conservation, environmental protection, energy and water conservation, and reuse and recycling. The key goals for the Open Space and Resource Conservation Element include:
  - Preserve, protect, and enhance natural resources, habitats, and watersheds in Moreno Valley and the surrounding area, promoting responsible management practices;
  - Preserve and respect Moreno Valley's unique cultural and scenic resources, recognizing their contribution to local character and sense of place;
  - Minimize air, soil, and water pollution, as well as community exposure to hazardous conditions;
  - Use energy and water wisely and promote reduced consumption; and
  - Optimize the use of available resources by encouraging residents, businesses, and visitors to reuse and recycle.

3.2.1.2 Concept Areas

The 2024 GPU primarily focuses future development and redevelopment within proposed Concept Areas as shown on Figure 3-1. These Concept Areas consist of areas within the City limits where clusters of vacant and underutilized land present significant opportunity for development that can help achieve the objectives of the Project, or where prior planning initiatives have identified significant change. Portions of the Planning Area located outside of these proposed Concept Areas would retain the current land use designations established under the existing 2006 General Plan. A description of each of the proposed Concept Areas is provided below.

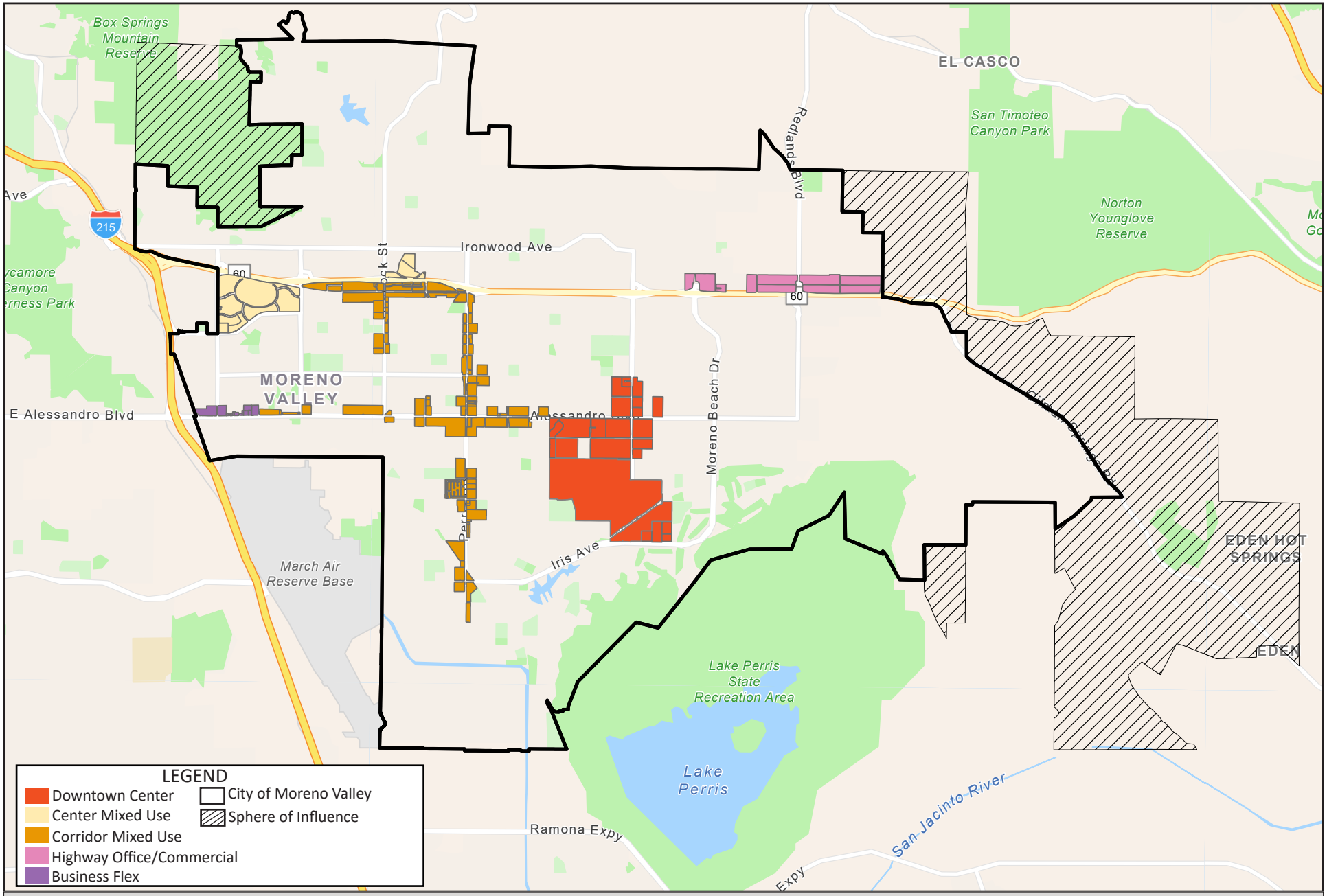


FIGURE 3-1: GENERAL PLAN UPDATE CONCEPT AREAS

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

a. Downtown Center

The 2024 GPU proposes a Downtown Center Concept Area that would be located in the central portion of the City, bordered by Cottonwood Avenue to the north, Iris Avenue to the south, Lasselle Street to the west, and Oliver Street to the east. The Downtown Center area would consist of approximately 1,200 acres, and is currently approximately 80 percent vacant.

The southern portion of the Downtown Center includes the Aquabella Specific Plan area. Aquabella was a gated active-adult community, previously approved in 2005 for 2,900 dwelling units, on 685 acres between Brodiaea Avenue and Iris Avenue. The Aquabella Specific Plan was amended in December 2024, and currently allows 15,000 workforce dwelling units, 49,900 square feet of commercial development, and a 300-room hotel.

The Downtown Center also encompasses the two major medical centers in the City (Riverside University Health System and Kaiser Permanente Moreno Valley). The recently completed/planned expansions of both major medical centers would be an important component of the Downtown Center's goal to grow into a "live, work, and play" destination. The medical corridor that these two major medical centers anchor would likely attract other related medical, health and wellness amenities and businesses to locate within the City and bring more jobs and people to the Downtown Center to support public and private improvements/investments.

An existing mobile home park is located adjacent to the Riverside University Health System Medical Center at the southwestern corner of the intersection of Nason Street and Alessandro Boulevard. This mobile home park may experience modification as the Downtown Center evolves. Nason Street (north-south) and Alessandro Boulevard (east-west) are two of the City's primary thoroughfares and form an important axis for getting to, from, and around the Downtown Center. The Moreno Valley Town Center Project is located at the northwestern corner of the intersection of Nason Street and Alessandro Boulevard. This public-private partnership project would be incorporated into the Downtown Center area and would likely serve as one of the early catalysts for the Downtown Center's development into a primary hub and focal point of the community with easy access from all parts of the City.

The Downtown Center is envisioned to be a regional draw with activity day through night and an architectural design and atmosphere to rival anything in the surrounding region and to distinguish the downtown apart from other areas of the City. Highlighted design features and aspirations envisioned for the Downtown Center include inviting gateways/monuments; grand boulevards with a distinctive, inviting character that announce arrival in Downtown Moreno Valley; planted medians, tall trees, and branded signage and street lighting; courtyards and plazas; pedestrian paths and multiuse trails; and a destination "Central Park."

The Downtown Center is envisioned to provide a vibrant mix of business, entertainment, residential, cultural, and civic uses that integrate existing uses (e.g., Riverside University Health System and Kaiser Permanente Moreno Valley medical centers; Moreno Valley College; Vista del Lago High School) and layers compatible new land uses and public

amenities together at different scales and intensities to foster an exciting blend of places to live, work, and play.

The Downtown Center is a bold idea that advances the vision for a dynamic local economy and vibrant gathering places, and there is strong community support for this concept. Community feedback regarding the Downtown Center has expressed desire for a "Central Park" recreation opportunity as well as performing arts, sports, civic, and entertainment facilities—all within a pedestrian/bike-friendly atmosphere where it is convenient and safe to explore and enjoy the area without a car.

b. Community Centers

The 2024 GPU proposes two Community Center Concept Areas in the western portion of the City at the existing Moreno Valley Mall and The District shopping centers. The Moreno Valley Mall is generally bounded by State Route 60 ("SR 60") to the north, Towngate Boulevard to the south, Frederick Street to the east, and Day Street to the west. The Moreno Valley Mall was opened in 1992 and since that time, small and large tenants of the mall have left. With the prominence and popularity of e-commerce, the future viability of the mall is noted to be a challenge by many community members, but also as an opportunity for creative redevelopment with a mix of uses, including housing, that can be attractive to locals and visitors. The Moreno Valley Redevelopment Project, approved in 2023, included a Specific Plan Amendment to the Town Center Specific Plan to add four multi-family residential communities totaling 1,672 dwelling units, two new hotel operations, and a new three-story 60,000 square-foot office building.

The District shopping center is generally bounded by Ironwood Avenue to the north, Hemlock Avenue and SR 60 to the south, Indian Street to the east, and Heacock Street to the west. The District, formerly known as Festival at Moreno Valley, is a shopping center that has experienced turnover of small and large tenants in recent years. The District is surrounded by existing single-family homes to the east and undeveloped lands to the north and west.

Both Community Centers would be developed as community-oriented mixed use centers that would complement the Downtown Center. The Community Centers concept would broaden the range of uses allowed on these two existing commercial properties at prominent locations visible from freeways (SR 60 and I-215), would foster distinctive gateways into the City, and generate an enhanced sense of place. The 2024 GPU includes the Community Centers concept to help provide a wider range of housing choices affordable to all ages and income levels; create inviting gateways at highly visible locations; attract local residents and freeway travelers; and strengthen identifiable landmarks of the community.

c. Community Corridors

The 2024 GPU proposes Community Corridors Concept Areas along existing major transit corridors of Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, and Heacock Street. These proposed Community Corridors currently consist of clusters of vacant and underutilized land that would be available for development in the near-term. The Community Corridors Concept Areas would promote a mix of residential, commercial, and

professional office uses for everyday needs, particularly suited to smaller business owners/entrepreneurs. The Community Corridors would also provide for a range of housing types that would include more affordable housing options located along existing major transit corridors that would support more frequent, reliable service. The Community Corridors Concept Areas would also focus on retail/commercial uses in nodes at high visibility intersections where businesses would have the greatest chance of success.

d. Highway Office/Commercial

The 2024 GPU proposes a Highway Office/Commercial Concept Area in the northeastern portion of the City, north of SR 60, south of Ironwood Avenue, west of World Logistics Parkway, and east of Moreno Beach Drive. The Highway Office/Commercial Concept Area envisions the creation of an inviting gateway of retail, commercial, office, and other uses (e.g., employment campus; educational campus) at a highly visible, accessible location in Moreno Valley. There is opportunity with this Concept Area to attract visitors to the City's easterly gateway to help make Moreno Valley a destination City. To implement the Highway Office/Commercial Concept Area, the 2024 GPU would include design standards to blend new development with the existing rural heritage and ensure compatibility with surrounding residential uses.

e. Business Flex

The 2024 GPU proposes a Business Flex Concept Area in the western portion of the City, south of SR 60, generally along Alessandro Boulevard, and adjacent to MARB. Due to this area's proximity to MARB, airport land use regulations prohibit dense housing, schools, hospitals, and other gathering places. The Business Flex concept allows a range of light industrial and commercial businesses for consistency with airport regulations and responds to market demand for increased production, distribution, and repair activity spaces in urban areas. The Business Flex concept would create an inviting gateway at the western entry to the City. To implement the Business Flex concept, the 2024 GPU would provide for business activities involving production, distribution, or repair with supporting office and commercial space. Permitted uses would be consistent with applicable airport land use regulations and development standards (e.g., performance-based zoning) would integrate flex commercial uses with surrounding neighborhoods to ensure adequate buffering and compatibility.

f. Residential Density Changes

The City has updated the Housing Element for an eight-year planning period spanning October 2021 through October 2029. The Housing Element included targeted residential density changes to provide for higher density housing to support the meeting of State obligations under RHNA. Moreno Valley's RHNA allocation for the Sixth Cycle Housing Element Update is a total of 13,627 units of new housing capacity. The State of California's Housing and Community Development Department certified the City's Housing Element on October 11, 2022.

3.2.1.3 Proposed Land Use Designations

The 2024 GPU includes a consolidated set of land use designations to guide development in the Planning Area through 2040. This would include introduction of five new designations intended to focus growth within the Concept Areas described above in a manner that would support the Vision and Guiding Principles developed by the community. Other land use designations will be carried forward from the existing 2006 General Plan to the Project's 2040 horizon year. Figure 3-2 presents the proposed land use map and Table 3-1 provides a summary of land uses proposed under the 2040 horizon year.

Table 3-1
2040 Horizon Year Land Use Summary

	City of Moreno Valley		Sphere of Influence		Total Planning Area	
Proposed Land Use Category	Acres	Percent	Acres	Percent	Acres	Percent
Residential	**15,303**	**46.4%**	**4,812**	**48.5%**	**20,115**	**46.9%**
R1 Residential	963	2.9%	25	0.2%	988	2.3%
R2 Residential	2,184	6.6%	-	-	2,184	5.1%
Rural Residential	57	0.2%	3,936	39.7%	3,993	9.3%
R3 Residential	1,055	3.2%	-	-	1,055	2.5%
R5 Residential	6,284	19.0%	-	-	6,284	14.6%
R10 Residential	2,525	7.7%	-	-	2,525	5.9%
R15 Residential	311	0.9%	-	-	311	0.7%
R20 Residential	705	2.1%	-	-	705	1.6%
R30 Residential	35	0.1%	-	-	35	0.1%
Hillside Residential	1,183	3.6%	852	8.6%	2,034	4.7%
Mixed Use	**2,372**	**7.2%**	**-**	**-**	**2,372**	**5.5%**
Downtown Center	1,255	3.8%	-	-	1,255	2.9%
Center Mixed Use	315	1.0%	-	-	315	0.7%
Corridor Mixed Use	803	2.4%	-	-	803	1.9%
Commercial/Office/Industrial	**5,772**	**17.5%**	**581**	**5.9%**	**6,353**	**14.8%**
Commercial	625	1.9%	581	5.9%	1,206	2.8%
Residential/Office	193	0.6%	-	-	193	0.4%
Highway Office/Commercial	264	0.8%	-	-	264	0.6%
Office	63	0.2%	-	-	63	0.1%
Business Park/Light Industrial	4,585	13.9%	-	-	4,585	10.7%
Business Flex	41	0.1%	-	-	41	0.1%
Public/Quasi-Public	**5,256**	**15.9%**	**4,337**	**43.7%**	**9,593**	**22.4%**
Public	968	2.9%	-	-	968	2.3%
Parks/Open Space	4,209	12.8%	1,647	16.6%	5,856	13.6%
Floodplain	80	0.2%	2,690	27.1%	2,770	6.5%
Transportation/Roads/Right-of-Way	4,294	13.0%	190	1.9%	4,484	10.4%
Total	**32,997**	**100%**	**9,920**	**100%**	**42,917**	**100%**

SOURCE: Dyett & Bhatia 2020

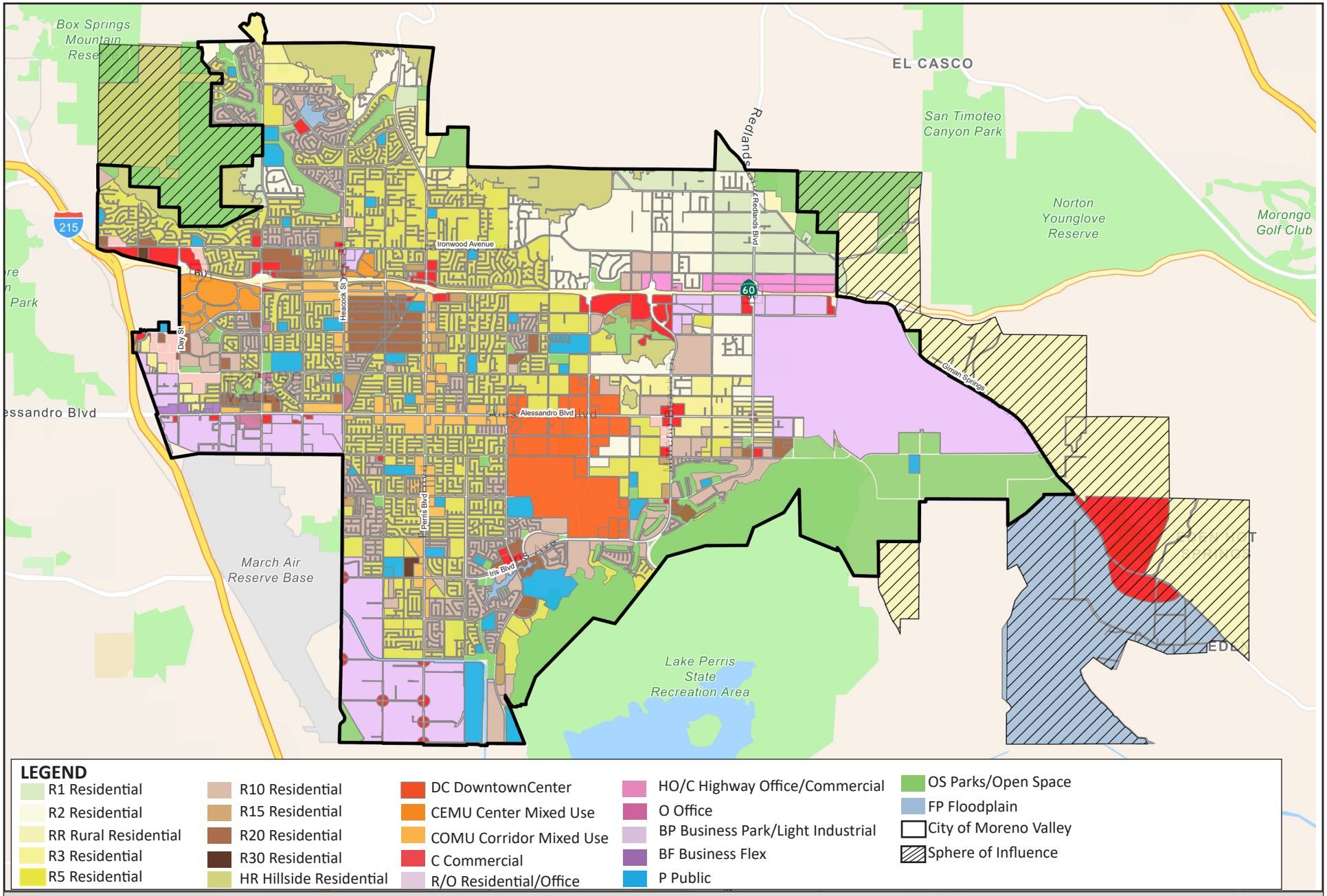


FIGURE 3-2: GENERAL PLAN UPDATE PROPOSED LAND USE MAP

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

a. Downtown Center – *New Designation*

This designation would provide for development of a vibrant new Downtown Center at the heart of the City to serve as a focal point of the community and destination for people from around the region. It would allow for a vibrant mix of business, entertainment, residential, cultural, and civic uses to activate the Downtown Center throughout the day and into the evening. It integrates existing uses and layers compatible new land uses and public amenities together at various scales and intensities to foster a mix of uses that encourages people to live, work, play, and shop within the Downtown Center. To implement the Downtown Center, the 2024 GPU describes the range of uses and activities envisioned and create a concept diagram that depicts the arrangement of uses in the wider area and circulation that connects them. The 2024 GPU provide an illustrative development program and phasing to guide environmental review and include policies that call for the creation of an Area Plan and flexible zoning tools to guide subsequent development. This designation would include policy that would allow for reconfiguration or redesign, so long as the overall development program is not exceeded, providing flexibility to accommodate market demand.

b. Center Mixed Use (CEMU) – *New Designation*

This designation would provide for the redevelopment of existing commercial centers and adjacent properties with a range of commercial and residential uses to complement existing development at prominent entry points into the community. The centers are envisioned as integrated, pedestrian-oriented places with a mix of uses including retail, dining, entertainment, offices, lodging, recreational and cultural facilities that cater to both motorists passing through and residents of surrounding neighborhoods. The Centers may also incorporate higher-density housing on-site to support the vitality of commercial uses and activate the area. The maximum permitted floor area ratio ("FAR") in the CEMU designation is 1.25, with a residential density range of 20 to 35 dwelling units per acre. On smaller parcels, additional FAR may be permitted to achieve the desired vision for the area.

c. Corridor Mixed Use (COMU) – *New Designation*

This designation would provide for a mix of housing with supporting retail and services that would cater to the daily needs of local residents. Permitted uses would include housing, retail, restaurants, personal services, public uses, and professional business offices. Retail uses should be concentrated at intersections and are limited to no more than 25 percent of the maximum permitted FAR, excluding parking. A mix of uses is not required on every site but is desired on sites at intersections to foster nodes of commercial mixed-use development along the corridor. Mixed use may be in either a vertical format (multiple uses in the same building) or horizontal format (multiple single-use buildings on the same parcel). The allowable residential density is 15-25 dwelling units per acre, with densities on the lower end of that range where proposed development abuts existing low density residential development. Maximum permitted FAR for commercial uses is 1.0.

d. Highway Office/Commercial – *New Designation*

This designation would provide for a distinctive employment or educational campus at the eastern gateway to the City. Primary permitted uses would include office, educational, and/or research and development facilities organized in a clustered development pattern with intervening areas of landscaped open space. Auxiliary commercial uses, including restaurant, retail, and service uses would also be permitted. The architectural style of development should reinforce the rural character intended for the surrounding area. The maximum permitted FAR in the Highway Office/Commercial designation is 0.4. On smaller parcels, additional FAR may be permitted to achieve the desired vision for the area.

e. Business Flex – *New Designation*

This designation would provide for a range of business activities involving production, distribution, or repair with supporting office and commercial space. Permitted uses would include light manufacturing, research and development, warehousing and distribution, automobile services and repair, and other uses consistent with applicable airport land use compatibility regulations. Corresponding zoning will be performance-based to promote flexibility and minimize non-conformance issues with existing uses. The maximum permitted FAR in the Business Flex designation is 0.5.

f. Commercial – *Carried Forward*

The primary purpose of areas designated Commercial would be to provide property for business purposes, including, but not limited to, retail stores, restaurants, banks, hotels, professional offices, personal services and repair services. The zoning regulations shall identify the particular uses permitted on each parcel of land, which could include compatible noncommercial uses. Commercial development intensity should not exceed a FAR of 1.00 and the average floor area ratio should be significantly less.

g. Residential/Office – *Carried Forward*

The primary purpose of areas designated Residential/Office would be to provide areas for the establishment of office-based working environments or residential developments of up to 15 dwelling units per acre. The zoning regulations shall identify the particular uses and type of residential development permitted on each parcel of land. Overall development intensity should not exceed a Floor Area Ratio of 1.00.

h. Office – *Carried Forward*

The primary purpose of areas designated Office would be to provide for office uses, including administrative, professional, legal, medical, and financial offices. The zoning regulations shall identify the particular uses permitted on each parcel of land, which could include limited non-office uses that support and are compatible with office uses. Development intensity should not exceed a FAR of 2.00 and the average intensity should be significantly less.

i. Business Park/Light Industrial – *Carried Forward*

The primary purpose of areas designated Business Park/Light Industrial would be to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a FAR of 1.00 and the average FAR should be significantly less.

j. Public – *Carried Forward*

The primary purpose of areas designated Public/Quasi-Public would be to provide property for civic, cultural and public utility uses, including, but not limited to schools, libraries, fire stations, museums, and government offices. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a FAR of 1.00 and the average FAR should be significantly less.

k. Parks/Open Space – *Carried Forward*

The primary purpose of areas designated Parks/Open Space would be to provide areas that are substantially unimproved, including, but not limited to, areas for outdoor recreation, the preservation of natural resources, the grazing of livestock, and the production of crops. Development intensity should not exceed a FAR of 0.10 and the average FAR should be significantly less.

l. Floodplain – *Carried Forward*

The primary purpose of areas designated Floodplain would be to designate floodplain areas where permanent structures for human occupancy are prohibited to protect the public health and safety. Development intensity should not exceed a FAR of 0.05.

m. Hillside Residential – *Carried Forward*

The primary purpose of areas designated Hillside Residential would be to balance the preservation of hillside areas with the development of view-oriented residential uses.

a. Within the Hillside Residential category, appropriate residential uses would include large lot residential uses. Lots smaller than one acre may only be permitted as clustered units to minimize grading, and other impacts on the environment, inclusive of the Multi-Species Habitat Conservation Plan.

b. The maximum residential density within Hillside Residential areas shall be determined by the steepness of slopes within the project. The maximum allowable density shall not exceed one dwelling unit per acre on sloping hillside property and shall decrease with increasing slope gradient.

c. Future development within Hillside Residential areas shall occur in such a manner as to maximize preservation of natural hillside contours, vegetation, and other

characteristics. Hillside area developments should minimize grading by following the natural contours as much as possible.

d. Development within Hillside Residential areas shall be evaluated to determine the precise boundaries of the area. If the Community Development Director determines that adequate slope information is not available, applicants requesting to develop within these areas shall complete a slope analysis for the proposed development site. Portions of the development that exceed an average slope of 10 percent shall adhere to the policies within the Hillside Residential category. Portions of the development where the slopes are less than 10 percent on average shall adhere to policies within the adjacent land use category.

n. Rural Residential – *Carried Forward*

The primary purpose of areas designated Rural Residential would be to provide for and protect rural lifestyles, as well as to protect natural resources and hillsides in the rural portions of the City.

a. The maximum residential density within Rural Residential and areas shall be determined by the steepness of slopes within the individual project area. The maximum allowable density shall be 0.4 dwelling units per acre (an average lot size of 2.5 acres) on flat terrain and shall decrease with increasing slope gradient.

b. Within the Rural Residential category, appropriate residential uses include large lot residential uses. Lots smaller than 2.5 acres may only be permitted as clustered units to minimize grading and other impacts on the environment, inclusive of the Multi-Species Habitat Conservation Plan.

o. R1 Residential – *Carried Forward*

The primary purpose of areas designated R1 Residential would be to provide for and protect rural lifestyles. The maximum allowable density for projects within the Residential 1 areas shall be 1.0 dwelling unit per acre.

p. R2 Residential – *Carried Forward*

The primary purpose of areas designated R2 Residential would be to provide for suburban lifestyles on residential lots larger than commonly available in suburban subdivisions and to provide a rural atmosphere. The maximum allowable density shall be 2.0 dwelling units per acre.

q. R3 Residential – *Carried Forward*

The primary purpose of areas designated R3 Residential would be to provide a transition between rural and urban density development areas, and to provide for a suburban lifestyle on residential lots larger than those commonly found in suburban subdivisions. The maximum allowable density shall be 3.0 dwelling units per acre.

r. R5 Residential – *Carried Forward*

The primary purpose of areas designated R5 Residential would be to provide for single-family detached housing on standard sized suburban lots. The maximum allowable density shall be 5.0 dwelling units per acre.

s. R10 Residential – *Carried Forward*

The primary purpose of areas designated R10 Residential would be to provide for a variety of residential products and to encourage innovation in housing types. Developments within Residential 10 areas are typically expected to provide amenities not generally found in suburban subdivisions, such as common open space and recreational areas. The maximum allowable density shall be 10.0 dwelling units per acre.

t. R15 Residential – *Carried Forward*

The primary purpose of areas designated R15 Residential would be to provide a range of multi-family housing types for those not desiring dwellings on individual lots that include amenities such as common open space and recreational facilities. The maximum allowable density shall be 15.0 dwelling units per acre.

u. R20 Residential – *Carried Forward*

The primary purpose of areas designated R20 Residential would be to provide a range of high density multi-family housing types. Developments within R20 Residential areas shall also provide amenities, such as common open spaces and recreational facilities. The maximum density shall be 20 dwelling units per acre.

v. R30 Residential – *Carried Forward (Moreno Valley Municipal Code 9.03.020.L)*

The primary purpose of the R30 Residential district would be to provide a broadened range of housing types in an urban setting than is typically found within other areas of the City. This district is intended as an area for development of multi-family residential dwelling units at a maximum allowable density of 30 dwelling units per net acre in accordance with the provisions outlined herein. (Ord. 797 § 2.2, 2009; Ord. 726 § 4.2, 2006; Ord. 547 § 1.1, 1999; Ord. 468 § 1.3, 1995; Ord. 359, 1992)

3.2.2 Climate Action Plan

The CAP provides a comprehensive plan for addressing GHG emissions within the Project area. The CAP was developed concurrently with the 2024 GPU and reflects that document's proposed land use and transportation strategy. The proposed CAP also evaluates how 2024 GPU goals and policies would affect future GHG emissions within the Planning Area.

The CAP is intended to reinforce the City's commitment to reducing GHG emissions and demonstrate how the City would comply with State GHG emission reduction standards established under SB 32 (2016) and Assembly Bill ("AB") 1279 (2022). As a Qualified GHG Reduction Strategy, the CAP would also enable streamlined environmental review of future development projects in accordance with CEQA. Specifically, the CAP quantifies existing and projected GHG emissions generated by activities within the City and the region through horizon year 2045, and it includes GHG emissions reduction targets for the years 2030 and 2045. The CAP also contains actions that demonstrate the City's commitment to achieve State GHG reduction goals through monitoring and reporting processes to ensure that targets are met, and options for reducing GHG emissions beyond State requirements. If the CAP is adopted, projects that demonstrate consistency with the 2024 GPU and CAP would be subject to a streamlined CEQA review process for mitigation of GHG emissions, pursuant to CEQA Guidelines Section 15183.5.

3.2.2.1 Plan Organization

The chapters of the CAP are summarized as follows.

- **Chapter 1: Introduction.** This chapter describes the scope and purpose of the proposed CAP, provides an overview of climate change and GHGs, introduces the California GHG reduction legal framework and state and federal standards on GHG emissions, and describes the planning process and how the plan is intended to be used.
- **Chapter 2: Greenhouse Gas Emissions Analysis.** This chapter describes the methodology used to calculate a baseline inventory of GHG emissions and identifies the major sources and the overall magnitude of GHG emissions in Moreno Valley, pursuant to Sections 15183.5(b)(1)(A) and 15183.5(b)(1)(C) of the CEQA Guidelines. This chapter also describes the GHG emissions forecast and targets, including a business-as-usual forecast, adjusted forecast, targets, and emissions gap.
- **Chapter 3: Greenhouse Gas Emissions Reduction Strategy.** This chapter provides a list of GHG reduction strategies that are required to meet GHG reduction targets and to provide a Qualified GHG Reduction Strategy for Moreno Valley. This chapter quantifies GHG reductions from CAP strategies and applies these reductions to the emissions forecast.
- **Chapter 4: Implementation and Monitoring.** This chapter describes steps to monitor progress and funding sources.

3.2.2.2 Planning Process

The proposed CAP reflects the City's commitment to the core values presented in the 2024 GPU, and links elements of the plan with the goal of GHG reduction. Drafting of the proposed CAP involved the development of an emissions inventory describing direct GHG emissions from sources within the City, as well as indirect emissions associated with the consumption of energy generated outside of the City, using modeling tools, activity data, and emissions factors. The CAP generated GHG emissions forecasts through 2045 to determine whether

buildout of the 2024 GPU would be consistent with State requirements, or if additional action would be required to meet GHG reduction targets.

3.2.2.3 GHG Reduction Targets

The CAP would need to demonstrate compliance with the Statewide GHG target for 2030 (40 percent below 1990 levels per SB 32), as well as for the CAP horizon year of 2045 (derived from 80 percent below 1990 levels by and removal of the remaining emissions via carbon sequestration pursuant to AB 1279). The CAP would also need to demonstrate consistency with the 2022 CARB Scoping Plan, which provides guidance for local communities to meet SB 32 and AB 1279 goals.

Per CARB, local actions—such as general plans and climate action plans—are essential tools for the state to meet its GHG emission reduction goals. CAP targets are to reduce per capita GHG emissions by 65 percent below 1990 levels by 2030 (equivalent to 987,683 metric tons carbon dioxide equivalent [$MTCO_2e$]) and achieve carbon neutrality by 2045 (to net zero $MTCO_2e$). The CAP targets exceed the goals established by SB 32 and AB 1279, consistent with the CAP guidelines established in the 2017 and 2022 Scoping Plans.

3.2.2.4 Proposed CAP Measures

The CAP projected that 2045 GHG emissions based on buildout of both the existing 2006 General Plan and the 2024 GPU, as well as GHG emissions reduction from State regulation in the City (e.g., Title 24, Renewable Portfolio Standards, and transportation regulations like Advanced Clean Cars) would exceed State GHG reduction goals. Although buildout of the 2024 GPU would result in fewer GHG emissions compared to buildout of the existing 2006 General Plan, it would still exceed standards established in State GHG reduction goals. Under both buildout scenarios, the majority of GHG emissions are generated by the building (residential and commercial) and transportation sectors. Additionally, projected GHG emissions associated with the building and water sectors would be lower in 2045 than in 2019, while emissions associated with all other sectors would be higher in 2045 than in 2019.

Therefore, the CAP developed a Qualified GHG Reduction Strategy that would meet the 2030 target to reduce per capita GHG emissions by 65 percent below 1990 levels and make substantial progress towards the 2045 target for carbon neutrality. These strategies are organized into six sectors and are quantified to measure GHG reduction potential. These strategies would serve to reduce GHG emissions associated with building energy (natural gas and electricity), transportation (on-road and off-road vehicles and equipment), water and wastewater, solid waste, and carbon sequestration. The CAP strategies are described in greater detail in Section 4.8, Greenhouse Gas Emissions.

3.2.3 Buildout Projections

Buildout represents a reasonably foreseeable projection of the total number of residents, housing units, and jobs in the City in 2040 as a result of growth under the 2024 GPU. Buildout estimates should be considered a prediction for growth but not considered a

guarantee, as the actual amount of development that would occur through 2040 is based on many factors outside of the City's control, including changes in regional real estate and labor markets and the decisions of individual property owners. Therefore, buildout estimates represent likely outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the 2024 GPU does not guarantee that a site would be developed or redeveloped at the assumed density during the planning period, as future development would rely on each property owner's initiative and market forces.

Table 3-2 presents growth projections for population, households, and jobs within Moreno Valley through 2040 based on the RIVCOM Model (see Appendix E of this Revised Draft EIR). By planning for housing development consistent with regional projections, the City positions itself well for future RHNA cycles; planning for less could make it more challenging to satisfy RHNA in the future.

Table 3-2
Growth Projections for Moreno Valley

	Existing (2024)	SCAG Projected (2040)	Increment
Population	205,620	298,440	92,820
Households	53,048	86,860	33,812
Employment	65,378	104,371	38,993

SOURCE: Kimley-Horn and Associates, Inc, Vehicle Miles Traveled Assessment, 2025. See Appendix E of the Revised Draft EIR.

3.2.3.1 Methodology Overview

To develop a reasonably foreseeable projection of housing and job growth for the planning period, a parcel-based analysis was conducted considering development potential and market demand factors. An overview of methodology for these projections is described below.

a. Opportunity Sites/Areas

Using Riverside County Assessor data from 2019, vacant and underutilized parcels were identified as opportunity sites, or places where change (i.e., new development or redevelopment) would be most likely to occur. Underutilized sites were defined as parcels with a low assessed value ("AV") ratio, low FAR, or both. AV ratio is the ratio of the value of existing permanent improvements (i.e., buildings and structures) to the value of the land on which they sit. Where this ratio is less than one, a parcel may be considered underutilized. In other words, where the value of the land is worth substantially more than the value of the structures on it, there is an incentive for the owner to redevelop with new uses that command higher rents or sales prices. Another indicator that a site may be a candidate for redevelopment is low intensity of existing commercial development. Building intensity can be measured by calculating FAR, the ratio of building floor area to overall site area. A low FAR means that the square footage of buildings is small compared to the overall size of the site. Properties under City ownership were also taken into consideration. The clusters of vacant and underutilized parcels that were identified in this process were then used to develop the Concept Areas included in the 2024 GPU described in Section 3.2.1.2 above.

b. Pipeline Projects

The City provided a list of pipeline projects, which consists of reasonably foreseeable major development projects under review, recently approved, or currently under construction. Project details for these pipeline projects, including any new housing and non-residential development, were added to the parcel database. Buildout assumes that all pipeline development would occur during the planning period.

c. Development Assumptions

New development is the increment of net new growth that would occur within the Planning Area, accounting for development on vacant sites as well as redevelopment that would demolish and replace existing structures. Opportunity sites were ranked in a tiering system by their existing conditions (i.e., AV ratio, FAR, vacant status, and location) and assigned a development potential, or amount of the parcel that is likely to undergo development during the planning period. This factor was applied to the size of each parcel to determine potential new developable area, as well as the number of existing buildings that would be redeveloped.

3.2.3.2 Buildout Summary

The projected Project buildout through the horizon year of 2040 would result in approximately 33,812 new homes and approximately 45,012,371 square feet of non-residential uses, generating approximately 38,993 new jobs in Moreno Valley by 2040.

Table 3-3 compares the existing residential units and employment square footage in 2024 with 2040 projections. A jobs-to-housing ratio is a metric that indicates the degree to which residents of a community need to commute outside the City limits for work. The 2024 and 2040, projected jobs-to-housing ratio would be 1.2.

Table 3-3
Citywide Buildout Summary[1]

	Residential Units			Employment (Nonresidential)			
	Low Density	Medium-High Density	Total Units	Commercial /Retail (sq. ft.)	Office (sq. ft.)	Light Industrial (sq. ft)	Total Jobs
2024	39,452	13,596	53,048	7,288,053	465,215	33,746,988	65,303
2040	46,722	40,138	86,860	9,241,218	2,386,955	74,884,455	104,296
Change	**7,270**	**26,542**	**33,812**	**1,953,165**	**1,921,740**	**41,137,466**	**38,993**

SOURCE: Kimley-Horn and Associates, Inc., 2025
1. Residential units and Employment Data was calculated using the 2024 and 2040 Traffic Analysis Data.

3.3 Intended Uses of the Revised Draft EIR

This Revised Draft EIR examines the potential environmental impacts of implementing the Project and identifies mitigation measures required to address significant impacts, as necessary. As no specific developments are proposed as part of the 2024 GPU, this Revised Draft EIR is a programmatic EIR and does not evaluate the potential 2024 GPU-specific environmental impacts of individual development proposals that may be allowed under the

2024 GPU subsequent to its adoption. Subsequent projects would be reviewed by the City for consistency with the Project and this Revised Draft EIR, and adequate project-level environmental review would be conducted as required under CEQA.

Therefore, while subsequent environmental review may be tiered from this Revised Draft EIR,[1] this Revised Draft EIR is not intended to address impacts of individual projects.

3.4 Related Environmental Review and Consultation Requirements

Implementation of the Project would require additional regulatory actions to be taken by the City, including amendments to the Zoning Code to ensure consistency. The Project would require a recommendation from the Planning Commission and adoption by the City Council, for approval of the 2024 GPU as well as zoning implementation.

3.5 Documents Incorporated by Reference

Consistent with CEQA Guidelines Section 15150,[2] this Revised Draft EIR incorporates the following documents by reference:

- World Logistics Center Specific Plan (Adopted August 25, 2015)
- World Logistics Center Specific Plan Revised Final EIR, Certified June 16, 2020 (State Clearinghouse No. 2012021045)
- Aquabella Specific Plan Amendment (Adopted December 3, 2024)
- Aquabella Specific Plan Amendment Subsequent Final EIR, Certified November 19, 2024 (State Clearing House No. 2023100145)

Where portions of the documents are relevant to the analysis in this Revised Draft EIR, the incorporated part of the referenced documents is briefly summarized. In compliance with CEQA Guidelines Section 15150, the documents listed are available to the public at the City of Moreno Valley Community Development Department.

[1] Section 15385 of the CEQA Guidelines describes "tiering" as "the coverage of general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs or ultimately site-specific EIRs incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared."

[2] Under CEQA Guidelines Section 15150, an EIR may incorporate by reference all or portions of another document that is a matter of public record or generally available to the public. The incorporated text shall be considered to be set forth in full as part of the EIR.

4

Chapter 4 Environmental Analysis

NOTE TO READERS: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of the Environmental Analysis, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

Chapter 4.0, Environmental Analysis provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, and actions and the projected buildout of the MoVal 2040 Project (Project), which consists of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP). The analysis area covers the entire City of Moreno Valley and its Sphere of Influence, which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refer to those areas where the GPU proposes land use changes as shown on Figure 3-1.

Topics Analyzed

The following environmental topics from the CEQA Guidelines Appendix G are evaluated in Section 4.1 through 4.18. Sections that have been modified as a result of the Ruling are denoted with an asterisk (*) below:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources

4.3 Air Quality*
4.4 Biological Resources
4.5 Cultural and Tribal Cultural Resources*
4.6 Energy*
4.7 Geology/Soils
4.8 Greenhouse Gas Emissions*
4.9 Hazards & Hazardous Materials
4.10 Hydrology/Water Quality
4.11 Land Use/Planning
4.12 Mineral Resources
4.13 Noise*
4.14 Population/Housing
4.15 Public Services and Recreation
4.16 Transportation*
4.17 Utilities/Service Systems
4.18 Wildfire

Type of EIR

Consistent with Section 15168 of the California Environmental Quality Act (CEQA) Guidelines, this Revised Draft Program Environmental Impact Report (Revised Draft EIR) provides a programmatic analysis of the environmental impacts associated with implementation of the goals, policies, actions, and projected buildout of the Project. A program-level environmental review document is prepared when a project consists of a series of actions that are characterized as one large project through reasons of geography, similar rules or regulations, or where individual activities will occur under the same regulatory process with similar environmental impacts that can be mitigated in similar ways. As described in Section 15168 of the CEQA Guidelines, program-level environmental review documents are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria. The Project that is the subject of this Revised Draft EIR consists of long-term plans that will be implemented as policy documents guiding future development activities and City of Moreno Valley (City) actions. Therefore a program-level EIR is appropriate.

In accordance with CEQA Guidelines Section 15168, a program-level EIR may serve as the EIR for subsequent activities or implementing actions, provided it contemplates and adequately analyzes the potential environmental impacts of those subsequent projects. If, in examining future actions for development within the proposed project areas, the City finds no new effects could occur or no new mitigation measures would be required other than those analyzed and/or required in this program-level EIR, the City can approve the activity as being within the scope covered by this program-level EIR, and no new environmental documentation would be required. If additional analysis is required, it can be streamlined by tiering from this program-level EIR pursuant to CEQA Guidelines Sections 15152, 15153, 15162, 15163, 15164, 15168, and 15183 (e.g., through preparation of a Consistency Determination, Mitigated Negative Declaration, Addendum, or Supplemental or Subsequent EIR).

Cumulative Impacts

CEQA Guidelines Section 15130 provides that "An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable," as defined in Guidelines Section 15065(a)(3). Cumulatively considerable means "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (14 California Code of Regulation 15065.) The discussion of cumulative impacts is contained within each subsection. In general, the cumulative analysis approach is based on a summary of projections as specified in CEQA Guidelines Section 15030(b)(1)(B). This approach is appropriate due to the nature of the Project which is based on projections for buildout of the 2024 GPU. Additionally, the CAP is based on a summary of greenhouse gas reduction projections over time. Applicable modeling used to support cumulative analysis conclusions is referenced in the subsections as appropriate.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Aesthetics remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.1 Aesthetics

This section analyzes impacts to visual resources that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan. The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area. This analysis relies on secondary source information including maps and historical records.

4.1.1 Existing Conditions

The total area of land in the Planning Area is approximately 42,900 acres or 67 square miles, of which 33,000 acres are within the city. Land outside of the city but within the sphere of influence is largely undeveloped natural open space.

4.1.1.1 Significant Features

a. Viewsheds and Scenic Vistas

A viewshed is generally defined as an area that can be seen from a given vantage point and viewing direction. A viewshed is composed of foreground items (items closer to the viewer) that are seen in detail and background items (items at some distance from the viewer) that frame the view.

A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises an important or dominant portion of the viewshed. Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated federal and state lands, as well as local open space or recreational areas, may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape.

Moreno Valley is located in Riverside County in an east-west oriented valley bordered by the Box Spring Mountain Range to the north, the Badlands Mountain Range, also known as San Timoteo Badlands, to the northeast, and the Bernasconi Hills with Lake Perris to the southeast. Moreno Valley connects to the San Jacinto Valley in the southeast between the Badlands Mountain Range and Bernasconi Hills. To the west, lower hill ranges including Sycamore Canyon are located between the cities of Riverside and Perris, and the Saddleback formation, which is part of the Santa Ana Mountain Range, lies further in the west beyond Lake Mathews. These topographic features provide numerous scenic vistas within the Planning Area.

The principal scenic resources in the Planning Area are all visible from State Route 60 (SR-60), a major regional east-west transportation corridor. Upon entering Moreno Valley from the west, the dominant view is of Box Springs Mountain to the immediate north and the Bernasconi Hills to the south. Both mountain ranges display numerous rock outcroppings and boulders that add visual character to these landforms. Moreno Peak is part of a prominent landform located within the city limit, south of SR-60 along Moreno Beach Drive. This landform only rises a few hundred feet above the valley floor but has a unique location near the center of the valley. Moreno Beach Drive, the main route to Lake Perris from SR-60, offers views of Moreno Peak and a panoramic view of Moreno Valley.

At the eastern edge of the city, SR-60 passes through the Badlands area, characterized by steep and eroded hillsides. Expanses of open land are found throughout this portion of the Planning Area and these tracts of land allow for uninterrupted scenic vistas from SR-60, Gilman Springs Road and other roadways and provide views of the San Jacinto Valley and the ephemeral Mystic Lake. Views of the San Bernardino and San Gabriel mountains are evident at times from the valley floor. Winter snows in the San Bernardino and San Jacinto Mountains often provide a striking view.

Within the city, several hills and rock formations present natural landmarks, particularly on the eastern part of the city between Moreno Beach Drive and Nason Street, just south of the SR-60, at Alessandro Boulevard and Lasselle Street, and along the northern edge of the city near Ironwood Avenue. The terrain gradually slopes from north to south, starting from the northern mountain range to the southern border of the city with an elevation change of approximately 300 feet between SR-60 and Iris Avenue. The nearest mountain ranges, as well as the more distant San Bernardino Mountains, Santa Ana Mountains, and San Gabriel Mountains, are visible from many locations in the Planning Area, particularly higher elevations in the city. A notable landmark is the 3,083-foot-tall Box Springs Mountain on the northeast side of Moreno Valley, which features a prominent “M” marker at its peak facing Moreno Valley. The “M” is lit at night during holidays and special events.

b. Structure and Urban Form

Moreno Valley’s structure, its physical form, is based on the north-south and east-west oriented one-square-mile gridiron plan laid out at the end of the nineteenth century as part of the settlement expansion to the American West. Much of this layout remains with some modifications, resulting in “superblocks” defined by major arterial roads. Most of Moreno Valley is organized in half-mile squares that are sometimes divided in half or four quarters by continuous roads, while some half-mile squares contain an irregular street grid within. One-mile squares or even larger blocks exist on the east side of the city.

A finer-grained urban fabric with a smaller street grid exists in the Sunnymead and Edgemont area, where Moreno Valley’s development first started. The grid structure is broken up to follow the natural topography at the Lake Perris area in the southeast and along the northern hills and mountains. Although not located within the city limits, March Air Reserve Base/Inland Port Airport (MARB/IPA) is located immediately adjacent to the southwestern boundary of the city and the street grid ends at the Base’s northern and eastern

boundary. SR-60 traverses Moreno Valley in an east-west direction with most of the city located on the south side of the highway.

The city has a decentralized structure with commercial, retail, public, and institutional uses distributed across the Planning Area, typically located along major arterials and at intersections of major arterials. Large-scale retail centers are concentrated along SR-60, with smaller neighborhood retail centers interspersed throughout the city fabric. Residential uses are spread out within the grid pattern, mainly consisting of single-family home subdivisions, some older small parcel residential areas, as well as a number of multi-family complexes. Light Industrial areas are located along the southern boundaries near the MARB/IPA and south of SR-60 on the east side of the city and are home to a variety of industries including large-scale distribution centers.

Large areas of vacant land are located on the city's east side beyond Lasselle Street. Here, some areas still remain rural in character with stand-alone buildings or compounds accessed by narrow roads, which in some cases are unpaved roads. Open land, a limited amount of which is used for agriculture, is lining Gilman Springs Road at the eastern edge of the city.

Major open spaces are the Lake Perris Recreation Area at the southern edge of the city along the Bernasconi Hills and the Box Spring Mountain Reserve Park in the northwest. A unique feature is Juan Bautista de Anza Multi-Use Trail, formerly named Aqueduct Trail, which runs diagonally through the western part of the city along the underground California Aqueduct Pipeline from the Moreno Valley Mall to Lake Perris State Park.

The City was formed in 1984, uniting the unincorporated communities of Sunnymead, Moreno, and Edgemont, during a time of significant growth. The regular street grid and amount of available land resulted in auto-oriented low-density development. Large single-family residential subdivisions were built in or within a portion of the half-mile square blocks or along the hillsides. Interspersed auto-oriented neighborhood retail centers serve these communities and are located along major four- or six-lane arterials. In the business and industrial areas, very large distribution centers and warehouses with building footprints between 1 and 1.5 million square feet are common. Existing structures within the Planning Area consist primarily of auto-oriented low-density development. With the exception of medical facility buildings, most buildings in Moreno Valley are one or two stories high, with some multi-family buildings or hotels going up to four stories. Large distributions centers have building heights of up to 50 to 60 feet and building lengths between 600 and 900 feet. The most significant source of light and glare occurs from artificial lights from buildings, including MARB/IPA in the southwestern portion of the Planning Area.

c. Historic Resources

Historic Resources are evaluated in Section 4.5, Cultural and Tribal Cultural Resources. A description of each of these resources is provided in Table 4.5-1, and the locations of each of these resources is presented in Figure 4.5-1. Of the 48 historic resources that were identified within the Planning Area, the following were determined to be significant:

- Old Moreno School (P-33-007278) – listed as a California Point of Historical Interest.
- Two single-family properties (P-33-007287 and P-33-007288) – recommended eligible at the local level.
- Three single-family properties (P-33-007284, P-33-007286, and P-33-007289) and one multi-family property (P-33-007285) – recommended eligible for the NRHP.
- First Congregational Church – Listed as significant in the existing 2006 General Plan.

4.1.2 Applicable Regulatory Requirements

4.1.2.1 Federal

a. Federal Aviation Administration

The Federal Aviation Administration (FAA) requires that any temporary or permanent structures exceeding an overall height of 200 feet above ground level be marked and/or lighted. While development associated with the project is not anticipated to exceed 200 feet in height, the FAA may also recommend marking and/or lighting of a structure that does not exceed 200 feet above ground level because of the particular location of a structure. MARB/IPA is located immediately adjacent to the southwestern boundary of the city and may trigger necessary notification of the FAA to ensure that proposed structures do not affect navigable airspace.

4.1.2.2 State

a. The 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 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 particular 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.

California Streets and Highway Code Section 261 requires local government agencies to take the following actions to protect the scenic appearance of the scenic corridor:

- Regulate land use and density of development;
- Provide detailed land and site planning;
- Prohibit off-site outdoor advertising and control of on-site outdoor advertising;
- Pay careful attention to and control of earth moving and landscaping; and
- Scrutinize the design and appearance of structures and equipment.

California Streets and Highway Code Section 263 allows the California State Legislature the authority to identify highways as eligible for designation as a scenic highway. The government with jurisdiction over land abutting a highway considered to be scenic is required to adopt a "scenic corridor protection program" that restricts development, outdoor advertising, and earth moving activities along the affected segment or corridor ("Corridor Protection Program"). Caltrans must also indicate that the highway segment meets established criteria in order for the roadway or segment to be designated as scenic.

There are no state-designated or eligible scenic highways in the Planning Area. The closest eligible state scenic highway is State Route 74 (SR-74), located approximately 8 miles south of the Planning Area, and the nearest officially designated segment of a state scenic highway is a portion of SR-74 located approximately 20 miles southeast of the Planning Area (Caltrans 2017a).

b. California Building Standards Code

Title 24 of the California Building Standards Code serves as the basis for the design and construction of buildings in California. In addition to safety, sustainability, new technology and reliability, the California Building Standards Code addresses light pollution and glare hazards through the establishment of maximum allowable backlight, up light, and glare (BUG) ratings.

4.1.2.3 Local

a. County of Riverside General Plan

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 Moreno Valley. 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. However, there are no Eligible or Designated State or County Scenic Highways within the Planning Area.

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 Land Use Element identifies various policies, in order 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.

b. City of Moreno Valley Municipal Code

Title 9 of the Municipal Code contains design guidelines that regulate the aesthetic quality of new development with respect to structures, signs, walls, landscaping and other improvements.

Chapter 9.08 General Development Standards, Section 9.08.100 Lighting establishes regulations and standards for outdoor lighting which will reduce light pollution and trespass generated by residential and nonresidential lighting fixtures and devices, while maintaining dark skies.

Chapter 9.10 Performance Standards provides standards for proposed development projects that may impact the surrounding neighborhood. Municipal Code Section 9.10.110 regulates light and glare by providing that no sign or lighting fixture shall create illumination which exceeds 0.5 foot candles minimum maintained on any adjacent property, whether the illumination is direct or indirect light from the source. Additionally, it is required that all lighting be designed to project down- ward and not create glare on adjacent properties.

Chapter 9.16 Design Guidelines contains design guidelines intended to promote quality site planning to ensure compatibility of surrounding development, while encouraging variety and distinctiveness in design and architectural styles. Municipal Code Section 9.16.020 specifies design principles relating to urban design, site planning, architecture, landscaping, lighting and sign design.

Chapter 9.17 Landscape and Water Efficiency Requirements identify landscape design issues and provide standards to create aesthetic and water conserving landscape areas. These requirements apply to landscape development in public rights-of-way, areas adjacent to the public right-of-way, easements, setbacks, slopes, parking areas, public, quasi-public, commercial, industrial and specified residential on-site landscape areas.

4.1.3 Methodologies for Determining Impacts

The visual resource analysis is based on field review of the Planning Area and review of topographic conditions. Any evaluation of visual impacts is necessarily subjective; however, community aesthetic values can be used to evaluate changes in views within a particular community. These values are found in General Plan policies, zoning ordinances, and, where specific policies are absent, general design theory and visual analysis methods can be incorporated to evaluate aesthetic impacts.

4.1.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to aesthetics are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact related to aesthetics would occur if the project would:

1) Have a substantial adverse effect on a scenic vista;

2) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway;

3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

4) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

4.1.5 Impact Analysis

4.1.5.1 Topic 1: Scenic Vistas

Would the project have a substantial adverse effect on a scenic vista?

The Planning Area is surrounded by mountain and hillside terrain that offer scenic vistas, the view of which are available throughout the Planning Area and major roadways. Implementation of the project would result in new development and redevelopment throughout the Planning Area that may detract from the existing scenic vistas. Additionally, new infrastructure such as road improvements, could interrupt or detract from a scenic vista. Future development and redevelopment would be focused into Concept Areas that primarily consist of vacant and underutilized parcels of land. However, many hillside areas, excluding the hillsides reserved for open space uses, would also be developed with low density residential uses. The valley floor would also be developed into a mixture of residential and nonresidential uses. Such views might be more or less aesthetically appealing depending on the nature of the resulting structures, walls, and how those properties are maintained.

Overall, because development could result in changes to the existing patterns of development and scenic opportunities, future development and redevelopment would have the potential to result in an impact to scenic vistas.

Future development and redevelopment would be required to adhere to relevant portions of the Municipal Code including Chapter 9.6 Design Guidelines which includes specific design and architectural guidelines applicable to new development (and remodeled development). Overall, these design guidelines function as a tool to ensure future projects would be compatible with the character and design of surrounding land uses. Additionally, this section of the Municipal Code includes design guidelines requiring that views are not blocked and scenic vistas are maintained. Specifically, design principals apply to mass, scale, proportion, texture, color, light and shade, solid to void, and unity/diversity (Municipal Code Section 6.16.020(A)). Additional guidelines are included to preserve hillsides (Municipal Code Section 9.16.235) and ensure future projects fit into their surroundings and are compatible with General Plan design policies (Municipal Code Section 9.16.110). All future development and redevelopment would be required to adhere to the proposed goals, policies, and actions included in the Open Space and Resource Conservation Element (OSRC) Element of the 2021 GPU.

Goal

OSRC-2: Preserve and respect Moreno Valley's unique cultural and scenic resources, recognizing their contribution to local character and sense of place.

Policies

OSRC.2-1 Limit development on hillsides and ridgelines where structures interrupt the skyline.

OSRC.2-2 Incorporate significant rock formations into the design of hillside developments.

OSRC.2-3 Minimize alteration of the topography, drainage patterns and vegetation of land with slopes of ten percent or more and maintain development standards to protect the environmental and aesthetic integrity of hillside areas.

OSRC.2-4 Reduce or avoid visual intrusion from energy and telecommunications infrastructure. Encourage the undergrounding of utility lines wherever feasible and promote the use of "stealth" designs that locate wireless infrastructure on existing poles, buildings and other structures.

OSRC.2-5 Recognize Gilman Springs Road, Moreno Beach Drive, and State Route 60 as local scenic roads and provide large setbacks from scenic roads, as possible, to avoid encroachment of buildings on scenic views of the surrounding mountains. The view of Mystic Lake from Gilman Springs Road should also be protected.

OSRC.2-6 The use of natural materials such as stone, brick, and wood is preferable to metal posts and rails for roadside appurtenances along local scenic roads.

OSRC.2-7 Ensure any signage along local scenic roads does not detract from the area's scenic character.

OSRC.2-8 Require cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas.

Actions

OSRC.2-A Update the Municipal Code to require a Hillside Development Permit as part of a proposed subdivision, for proposed development or new land use on that portion of a site with a slope of 10 percent or greater.

OSRC.2-B Maintain a map of sensitive archaeological sites in Moreno Valley and use it to inform project applicants of the need for cultural resource assessments.

As described above, the OSRC Element includes goals and policies to limit development on hillsides and ridgelines where structures interrupt the skyline, avoid encroachment of buildings on scenic views of the surrounding mountains, and preserve the view of Mystic Lake from Gilman Springs Road. Therefore, adherence to applicable Municipal Code design requirements and 2021 GPU policies would ensure that future development would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

4.1.5.2 Topic 2: Scenic Resources

Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway?

As described in Section 4.1.2.2.a above, there are no state-designated or eligible scenic highways within the Planning Area. The closest eligible state scenic highway is SR-74, located approximately 8 miles south of the Planning Area, and the nearest officially designated segment of a state scenic highway is a portion of SR-74 located approximately 20 miles southeast of the Planning Area (Caltrans 2017). Future development within the Planning Area would not be located within the viewshed of SR-74, including the segment designated as a state scenic highway. Therefore, the project would not project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway. No impact would occur.

4.1.5.3 Topic 3: Visual Character or Quality

In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points). In an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

a. Construction Related Visual Quality Impacts

Implementation of the project would result in construction activities throughout the Planning Area. Temporary construction activities would involve the use of heavy machinery that would be visible from the immediately surrounding areas. These could degrade the existing visual character and quality of the respective development sites and their surroundings during the construction phase.

All project-related construction activities would be temporary in nature and all construction equipment would ultimately be removed from individual project sites following completion of construction activities. Therefore, changes to local visual character and quality associated with construction of future development would be temporary, and impacts would be less than significant.

b. Post Development Visual Quality Impacts

Future development and redevelopment would be focused into Concept Areas that primarily consist of vacant and underutilized parcels of land. This would result in an intensification of uses in previously developed urbanized areas of the community. In the northern and eastern parts of the city, the project would generally maintain existing land use designations that allow for low density residential development, commercial development, and industrial development on vacant land (see Figure 3-2). Development in the eastern part of the city north of SR-60 would primarily consist of low density housing at between 0.4 and 5 dwelling units per acre, consistent with existing land use and zoning regulations and the scale of existing development in the vicinity. Proposed 2021 GPU Action LU-3.F calls for the establishment of residential design guidelines for single-family neighborhoods which will help ensure compatibility of new development with the existing context. Within the proposed Highway Office/Commercial designation, a new employment campus with office and accessory commercial uses is envisioned and the designation specifically states that "the architectural style of development should blend to the rural character intended for the surrounding area." Proposed 2021 GPU policies pertaining to this area would reinforce this requirement and call for the incorporation of scenic views of surrounding hills into new development.

Land within the proposed Downtown Center designation is largely vacant under current conditions, although prominent existing development includes the Riverside University Medical Center and the Kaiser Permanente Medical Center, as well as some residential development. This proposed Concept Area would see significant new commercial, retail, office, recreational and residential development, as well as new roadways and bicycle and pedestrian facilities to create a vibrant central business district for the city and focal point for residents and visitors. Pursuant to proposed GPU Policy LU-2.2, new development in the Downtown Center would be required to prepare an area plan, master plan, or site plan demonstrating consistency with principles established in the 2021 GPU for land use, transportation, and open space and the illustrative buildout projections for the area. Policies in the proposed 2021 GPU also call for high-quality architectural standards, a variety of building types and scales to create a distinct identity, and the incorporation of public art.

Similarly, the proposed Center Mixed Use and Corridor Mixed Use designations would facilitate significant new residential and commercial development, including mid to high density housing between 15 and 25 dwelling units per acre in the corridors, and up to 30 dwelling units per acre in the centers. As underutilized parcels and surface parking lots are redeveloped, policies in the proposed 2021 GPU would promote entrances to new buildings along the street frontage to activate the pedestrian realm; result in streetscape improvements along the corridors that would see the addition of bicycle lanes and landscaped buffers along the sidewalks; and call for the City to explore options for encouraging new "People Places" such as public plazas with seating, art, play features near shopping and business districts including outdoor areas, and encouraging restaurants to create sidewalk outdoor seating areas to activate sidewalks.

Once the proposed plan is approved by the City Council, the Planning and Zoning Code and other City regulations would be updated for consistency with the approved Plan, thereby eliminating any conflicts. Furthermore, architectural palettes of future development would be required to be designed for compatibility with surrounding land uses, and all future development would adhere to landscaping requirements specified in Municipal Code Chapter 9.17 that sets forth requirements for landscape design. Adherence to these requirements would enhance the aesthetic quality of future development and create visual continuity with surrounding land uses. The landscape regulations detail design standards applicable to turf areas, shrubs and tree, and wall treatments for all types of development including streetscapes, parking areas, residential, and commercial landscape plans. In addition to requiring water efficient landscape plans, the regulations require individual projects to complement surrounding areas whether within fully developed or adjacent to open space. Therefore, adherence to applicable 2021 GPU policies and Municipal Code requirements would ensure that future development would not degrade the existing visual character or visual character or quality public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality, and impacts would be less than significant.

4.1.5.4 Topic 4: Light or Glare

Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Implementation of the project may introduce new sources of daytime glare and may change nighttime lighting and illumination levels.

Lighting nuisances typically are categorized by the following:

1) Glare – Intense light that shines directly, or is reflected from a surface into a person's eyes;

2) "Skyglow"/Nighttime Illumination – Artificial lighting from urbanized sources that alters the rural landscape in sufficient quantity to cause lighting of the nighttime sky and reduction of visibility of stars and other astronomical features; and

3) "Spillover" Lighting – Artificial lighting that spills over onto adjacent properties, which could interrupt sleeping patterns or cause other nuisances to neighboring residents.

The main sources of daytime glare in the Planning Area are from sunlight reflecting from structures with reflective surfaces such as windows. A source of glare during the nighttime hours is artificial light. Future development would include residential and commercial uses containing structures and other potential sources of light and glare both during the day and at night. Building materials (i.e., reflective glass and polished surfaces) are the most substantial sources of glare. The amount of glare depends on the intensity and direction of sunlight, which is more acute at sunrise and sunset because the angle of the sun is lower during these times. The sources of new and increased nighttime lighting and illumination include, but are not limited to, new residential development, lighting from non-residential uses, lights associated with vehicular travel (i.e., car headlights), street lighting, parking lot lights, and security related lighting for nonresidential uses. Increased nighttime lighting and illumination could result in adverse effects to adjacent land uses. Title 24 of the California Building Standards Code serves as the basis for the design and construction of buildings in California. In addition to safety, sustainability, new technology and reliability, the California Building Standards Code addresses light pollution and glare hazards through the establishment of maximum allowable BUG ratings (State of California 2011). Future development would also be required to adhere to Municipal Code Section 9.08.100 which addresses citywide night lighting standards. Among other things, it requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 0.25 foot-candle of light measured from within five feet of any property line (Municipal Code Section 9.08.100 C.3.a). Therefore, adherence to applicable state building standards and Municipal Code regulations aimed at protecting against the effects of light and glare on day and nighttime views in the Planning Area would ensure that future development would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

4.1.6 Cumulative Analysis

The geographic scope of the cumulative impact analysis for aesthetics includes the immediate vicinity of view corridors, view sheds, or scenic resources in the city. Future development would be required to adhere to all relevant local plans, Municipal Code regulations and proposed policies contained in the updated elements of the 2021 GPU. Specifically, design standards, landscape plans, and light regulations would be applied to all project specific development.

New development would be reviewed on a project-by-project basis, in order to ensure each city's development standards are met and new development is compatible with its existing surrounding area and visually compatible with existing land uses. Therefore, the project would not contribute to a cumulative impact related to aesthetics.

4.1.7 Significance of Impacts before Mitigation

With respect to all issues discussed under Section 4.1.5, compliance with local plans, the city's Municipal Code requiring standards design measures, and proposed 2021 GPU policies would be required. As future development would be consistent with all relevant regulations, impacts related to aesthetics would be less than significant.

4.1.8 Mitigation

Impacts would be less than significant. No mitigation is required.

4.1.9 Significance of Impacts after Mitigation

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Agriculture and Forestry Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.2 Agriculture and Forestry Resources

This section analyzes potentially significant impacts related to agriculture and forest resources that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and the sphere of influence (SOI), which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refer to those areas where the GPU proposes land use changes as shown on Figure 3-1. This analysis relies on secondary sources and farmland mapping data from the California Department of Conservation (CDC).

4.2.1 Existing Conditions

The Planning Area has a long history of agricultural use dating back to when Moreno Valley was originally settled in the 1850s. However, a variety of economic factors have caused farming to decrease substantially over recent decades. The high cost of land, the high cost of water and energy, fragmented ownership patterns, and market conditions limit the potential return on investment, which have combined to disincentivize the continuation of agricultural production within the Planning Area. Consequently, urban development has encroached on agricultural land within the Planning Area over time, and it is no longer a strong component of the city's economy.

The Conservation Element of the City's 2006 General Plan identified agricultural production as an interim use. Objective 4.1 of the 2006 General Plan states that while the City should "retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests," the City should also "provide for an orderly transition of agricultural lands to other urban and rural uses" (Moreno Valley 2006a). Due to the anticipated continuation of economic factors that would disincentivize agricultural production within the Planning Area, the 2006 Final EIR determined that impacts to agricultural resources would be significant and unavoidable (Moreno Valley 2006b). Since adoption of the 2006 General Plan, agricultural uses have continued to decrease within the Planning Area. No land within the Planning Area is designated as Agriculture on the City's existing land use map, and remaining farming uses in the Planning Area are limited to intermittent farming activities north of State Route 60 (SR-60) in the northeast portion of the city.

4.2.2 Applicable Regulatory Requirements

4.2.2.1 Farmland Mapping and Monitoring Program

The CDC, Division of Land Resource Protection, identified important farmland throughout the state through its Farmland Mapping and Monitoring Program (FMMP). The FMMP is non-regulatory and was developed to inventory land and provide categorical definitions of important farmlands and consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The program does not necessarily reflect local General Plan actions, urban needs, changing economic conditions, proximity to market, and other factors, which may be taken into consideration when government considers agricultural land use policies. The FMMP periodically prepares *Important Farmland Maps*, which are a hybrid of resource quality (soils) and land use information intended to document the suitability of land for agricultural production.

The last update for Riverside County that was completed reflects land use changes to agriculture, through the year 2016. Figure 4.2-1 presents the distribution of FMMP resources within the Planning Area. These include lands designated as Prime and Unique Farmlands, Farmland of Statewide and Local Importance, Grazing Land, Urban and Built-Up, and Other Land. A description of each of these categories is provided below.

a. Prime Farmland

Prime Farmland has the most favorable combination of physical and chemical features, enabling it to sustain long-term production of agricultural crops. This land possesses the soil quality, growing season, and moisture supply needed to produce sustained high yields. In order to qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to Natural Resources Conservation Service (NRCS) mapping. The Planning Area contains approximately 157.0 acres of Prime Farmland.

b. Farmland of Statewide Importance

Farmland of Statewide Importance is similar to Prime Farmland; however, it possesses minor shortcomings, such as greater slopes and/or less ability to store moisture. In order to qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to NRCS mapping. The Planning Area contains approximately 8.0 acres of Farmland of Statewide Importance.

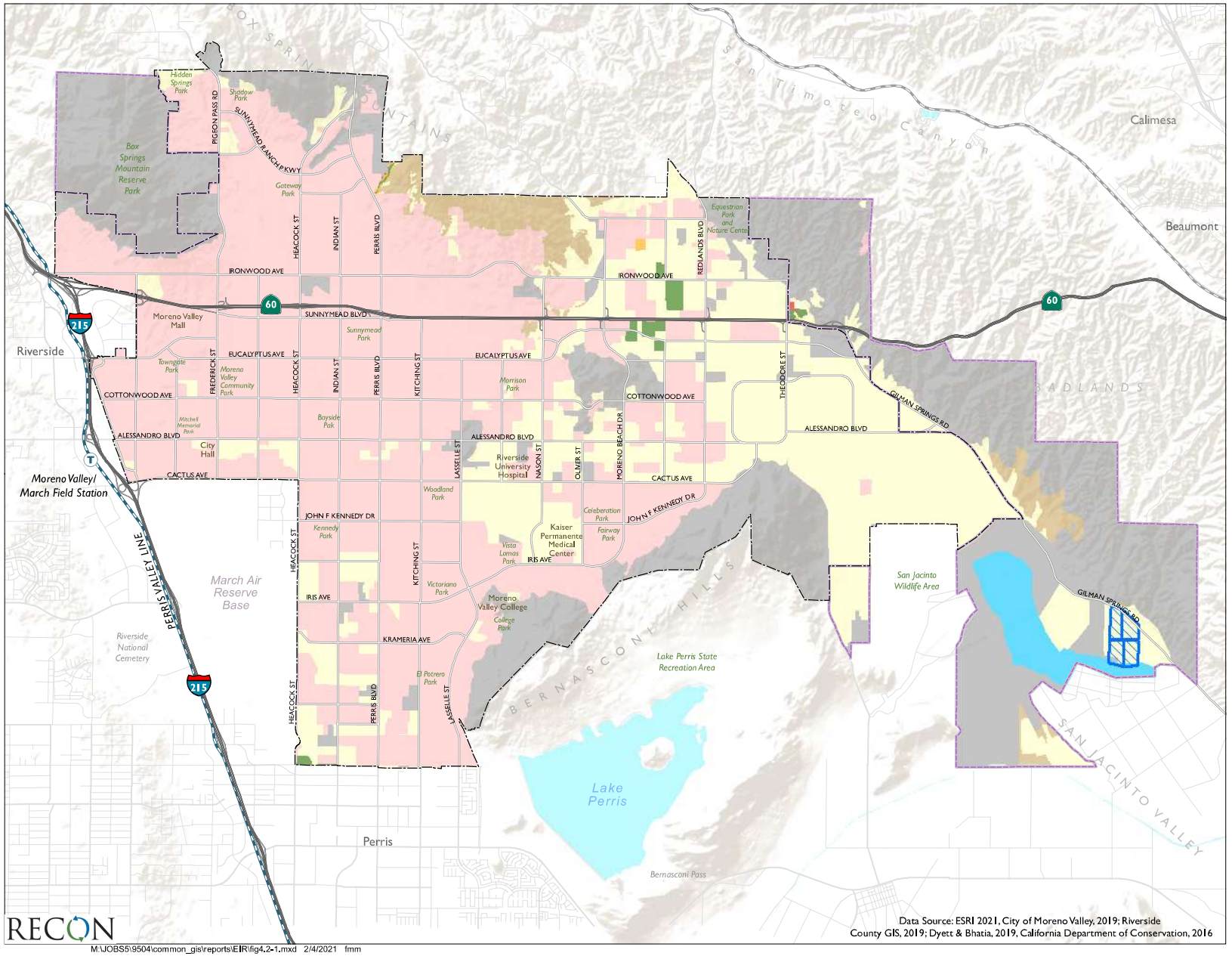


FIGURE 4.2-1
FMMP Important Farmlands

c. Unique Farmland

Unique Farmland is of lesser quality soils used for the production of the state's leading agricultural crops. Unique Farmland includes areas that do not meet the above stated criteria for Prime Farmland or Farmland of Statewide Importance, but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been farmed at some time during the four years prior to the mapping date. The Planning Area contains approximately 20.2 acres of Unique Farmland.

d. Farmland of Local Importance

Farmland of Local Importance is important to the local agricultural economy, as determined by the County Board of Supervisors and a local advisory committee. The County defines Farmland of Local Importance as land with the same characteristics as Prime Farmland or Farmland of Statewide Importance, with the exception of irrigation. The Planning Area contains approximately 9,688.6 acres of Farmland of Local Importance.

e. Grazing Land

Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. The Planning Area contains approximately 1,098.7 acres of Grazing Land.

f. Urban and Built-Up Land

Urban and Built-Up Land consists of land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. The Planning Area contains approximately 19,208.7 acres of land designated as Urban and Built-Up Land.

g. Other Land

Other Land consists of land not included in any other mapping category. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural

land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. The Planning Area contains approximately 12,036.7 acres of land designated as Other Land.

h. Water

Water consists of perennial water bodies with an extent of at least 40 acres. The Planning Area contains approximately 698.8 acres of land designated as Water.

Table 4.2-1 presents the approximate acreage of each FMMP category within the Planning Area, while Figure 4.2-1 presents the distribution of each FMMP category within the Planning Area.

Table 4.2-1
Acres of FMMP Farmland within the Planning Area

Category	City	SOI	Total
Prime Farmland	146.1	10.9	157.0
Farmland of Statewide Importance	2.7	5.3	8.0
Unique Farmland	19.3	0.9	20.2
Farmland of Local Importance	8,399.8	1,288.8	9,688.6
Grazing Land	746.9	351.8	1,098.7
Urban and Built-Up Land	19,184.2	24.5	19,208.7
Other Land	4,498.0	7,538.6	12,036.7
Water	0.3	698.5	698.8
TOTAL	**32,997.3**	**9,919.4**	**42,916.7**
SOI = sphere of influence			

4.2.2.2 California Land Conservation Act

The California Land Conservation Act of 1965, better known as the Williamson Act (California Administrative Code §51200 et seq.), creates an arrangement whereby private landowners contract with local governments to voluntarily restrict land to agricultural or related open space uses. In return, restricted parcels are assessed for property tax purposes, at a rate consistent with their actual use, rather than potential market value, which saves landowners from 20 percent to 75 percent in property tax liability each year. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971 (California Government Code Section 16140-16154). Initially signed for a minimum 10-year period, the contracts are automatically renewed each year for a successive minimum 10-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government. Review of CDC, Division of Land Resource Protection, Conservation Program Support mapping data determined that there are no parcels protected by Williamson Act Contracts within the city. Four contiguous parcels totaling 144.75 acres located within the southeasternmost portion of the sphere of influence are protected by a Williamson Act Contract.

4.2.3 Methodologies for Determining Impacts

The impact evaluation began with a review of the history of agricultural resource production within the Planning Area, and mapping the acreage of each FMMP category within the Planning Area. A review of existing Williamson Act Contracts within the Planning Area was also conducted. The proposed Concept Areas were then overlain on the existing FMMP and Williamson Act Contract data to determine the approximate maximum acreage of impact to existing resources within the Planning Area. This was followed by an evaluation of how proposed GPU goals would serve to either preserve or impact agricultural resources within the Planning Area.

4.2.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to air quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact related to agriculture and forestry resources would occur if the project would:

1) 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;

2) Conflict with existing zoning for agricultural use, or a Williamson Act Contract;

3) 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]);

4) Result in the loss of forest land or conversion of forest land to non-forest use; or

5) 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.

4.2.5 Impact Analysis

4.2.5.1 Topic 1: Important Farmland

Would the project 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?

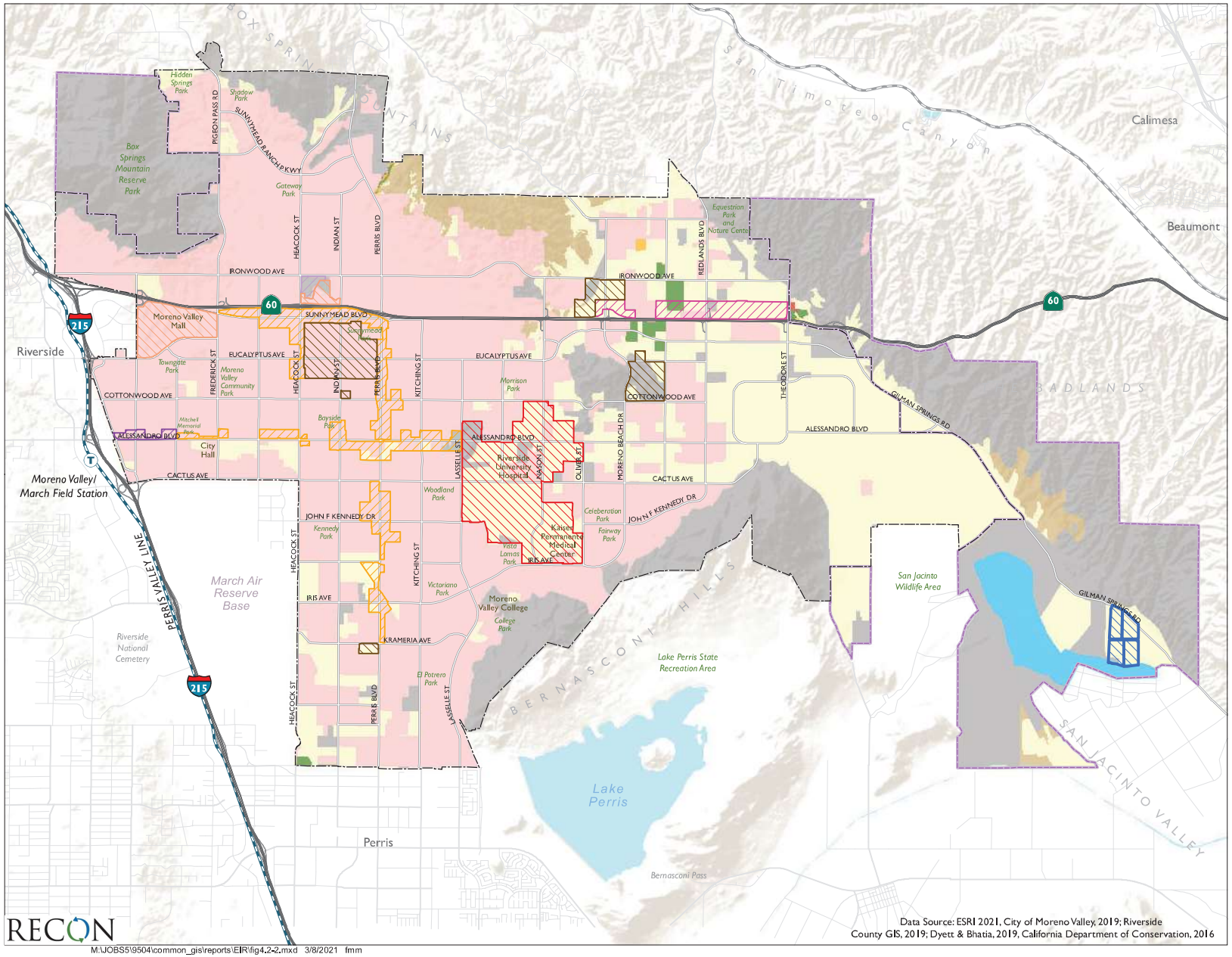
Implementation of development consistent with the GPU will result in the conversion of agricultural uses within the Planning Area to urban uses. As shown on Figure 4.2-2, the majority of the Planning Area is mapped as urban and Built-Up land. Pockets of Farmland of Local Importance are located within vacant lots in the urban area in addition to larger swaths of Farmland of Local Importance in the eastern portion of the city. A few areas of Prime Farmland are mapped in the northeast portion of the city near SR-60. Development under the GPU could result in conversion of these mapped Farmlands.

Like the proposed GPU, the 2006 General Plan does not propose any permanent preservation of agricultural land. The 2006 General Plan FEIR anticipated conversion of agricultural land to non-agricultural urban uses, with some agricultural activities continuing as interim uses, as allowed under the City's zoning. While land outside of the Concept Areas may be subject to future development and conversion of Farmlands, this conversion was anticipated by the 2006 General Plan EIR. The land use changes proposed with the GPU are limited to the Concept Areas shown on Figure 4.2-2. The Concept Areas consist of clusters of vacant and underutilized land within the City limit. Table 4.2-2 presents the maximum approximate acreage of impact that would occur through development of the Concept Areas.

Table 4.2-2
Acreage of Maximum Impacts to FMMP Farmland within Concept Areas

Category	Acres
Prime Farmland	15
Farmland of Statewide Importance	-
Unique Farmland	-
Farmland of Local Importance[1]	1,423
Grazing Land	2
Urban and Built-Up Land	1,528
Other Land	300
Water	0
TOTAL	3,267[2]

SOURCE: California Department of Conservation 2021.
[1]Since the City has not adopted a local definition for Farmland of Local Importance, mapping reflects the Riverside County definition of Farmland of Local Importance, dating back to before incorporation as a City.
[2]Totals may not add due to rounding



- City of Moreno Valley
- Sphere of Influence
- Williamson Act Contract Lands

General Plan Concept Areas

Mixed Use

- Downtown Center
- Center Mixed Use
- Corridor Mixed Use

Commercial/Office/Industrial

- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex

Residential

- Residential Density Changes

FMMP

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Grazing Land
- Farmland of Local Importance
- Water
- Urban and Built-Up Land
- Other Land

0 Miles 1

RECON

M:\JOBS5\9504\common_gis\reports\EIR\fig4.2-2.mxd 3/8/2021 fmm

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, California Department of Conservation, 2016

FIGURE 4.2-2
FMMP Important Farmlands Impacts

Development within the Downtown Center Concept Area would impact land mapped as Farmland of Local Importance, in addition to a few lots scattered among the Corridor Mixed Use areas. Although these areas were anticipated for development under the 2006 General Plan, a majority of the land remains vacant and available for agricultural use. As a result, implementation of the GPU could result in a significant impact to Farmland in these areas. As detailed in Table 4.2-2, approximately 1,423 acres of Farmland of Local Importance would be impacted within the Concept Areas. Additionally, future development within the Highway/Office Commercial Concept Area north of SR-60 would impact up to approximately 15.0 acres of Prime Farmland, which is farmland with the best combination of physical and chemical features able to sustain long term agricultural production. Although this portion of the Highway/Office Commercial Concept Area currently is not within agricultural production, conversion of these soils designated as Prime Farmland to urban uses would be considered a significant impact. Furthermore, development throughout the city, including areas where no land use changes are proposed, would have the potential to convert land designated as Prime Farmland, Farmland of Local Importance, Farmland of Statewide Importance, and Unique Farmland to non-farming uses.

4.2.5.2 Topic 2: Agricultural Zoning and Williamson Act Contracts

Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

As the City does not have any exclusive agriculture zones, the project would not conflict with zoning for agricultural use. Although the project does not include any rezoning at this time, future rezoning is anticipated to bring the zones into consistency with the General Plan. Therefore, impacts related to changes to existing zoning would be less than significant. As described in Section 4.2.2.2 above, four contiguous parcels totaling 144.75 acres located within the southeasternmost portion of the sphere of influence is protected by a Williamson Act Contract. The project does not propose any land use changes on or in proximity to the Williamson Act parcels. Therefore, the project would not impact any properties protected by a Williamson Act Contract.

4.2.5.3 Topic 3: Forest Zoning

Would the project 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])?

The City does not possess any zoning classifications for forestland, timberland, or timberland production zones. No impact would occur.

4.2.5.4 Topic 4: Forest Land

Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The Planning Area does not possess any forestland. No impact would occur.

4.2.5.5 Topic 5: Indirect Conversion

Would the project 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?

As described in Section 4.2.1 above, the City does not have any lands designated as Agriculture and there is limited active farming remaining in the city, although some intermittent farming activities may still occur north of SR-60 in the northeast portion of the city. Within this area, the proposed Highway/Office Commercial Concept Area north of SR-60 would be located adjacent to Farmlands of Local Importance where interim agricultural uses may still be occurring. Additionally, the GPU would extend the Highway/Office Commercial designation north into existing R1 designated lands, which could further accelerate agricultural conversion beyond the existing 2006 General Plan. Future development with the Highway/Office Commercial Concept Area would generally be compatible with the interim agricultural uses since they do not include a residential component. However, future development could accelerate conversion of agricultural land due to the introduction of a higher intensity land use. As previously discussed, the 2006 General Plan EIR anticipated conversion of all agricultural land uses to urban and rural uses. Furthermore, the Open Space and Resource Conservation Element (OSRC) of the GPU includes the following to support preservation of agricultural resources.

Goal

OSRC-1: Preserve, protect, and enhance natural resources, habitats, and watersheds in Moreno Valley and the surrounding area, promoting responsible management practices.

Policies

OSRC.1-1 Retain the maximum feasible amount of open space and agricultural land in areas outside the city surrounding Moreno Valley, recognizing its habitat value as well as its contribution to the local economy, quality of life, healthy air quality, and community character.

OSRC.1-6 Where agriculture exists within the City limits, allow uses to continue until urban development occurs on these properties and support appropriate commercial activities (i.e. horse stables, agritourism) in rural areas in and around Moreno Valley.

Nonetheless, implementation of the project would intensify uses within the Planning Area in a manner that would further reduce the feasibility of agricultural production. Furthermore, the continued development of land under the land use designations that would remain unchanged could also indirectly affect the feasibility of agricultural production through urbanization.

4.2.6 Cumulative Analysis

4.2.6.1 Topic 1: Important Farmland

The project would result in the continued decline in important farmland, which is consistent with trends in the broader region. It is anticipated that the amount of important farmland throughout Riverside County would continue to decline over time as population growth and subsequent development would continue to convert important farmland to non-agricultural uses. Therefore, the project would contribute to a cumulatively significant impact on important farmlands.

4.2.6.2 Topic 2: Agricultural Zoning and Williamson Act Contracts

The project would not result in direct impacts related to agricultural zoning or Williamson Act contracts, and therefore would not contribute to a cumulatively significant impact.

4.2.6.3 Topic 3: Forest Zoning

The City does not possess any zoning classifications for forestland, timberland, or timberland production zones, and therefore would not contribute to a cumulative impact.

4.2.6.4 Topic 4: Forest Land

The Planning Area does not possess any forestland, and therefore would not contribute to a cumulative impact.

4.2.6.5 Topic 5: Indirect Conversion

The project would result in the continuation of development pressures that would indirectly reduce the feasibility of agricultural production, which is consistent with trends in the broader region. It is anticipated that indirect conversion of farmland would increase throughout the region due to population growth and subsequent development. This continued growth would result in land use conflicts that could indirectly impact agricultural resources and economic pressures that would be a disincentive to the continuation of agricultural production within the region. Therefore, the project would contribute to cumulatively significant impacts related to the indirect conversion of potential farmland to non-agricultural resources.

4.2.7 Significance of Impacts before Mitigation

4.2.7.1 Topic 1: Important Farmland

Implementation of the GPU would impact Prime Farmland and Farmland of Local Importance within proposed Concept Areas. Furthermore, the continued development of properties under the land use designations that would remain unchanged would also have the potential to convert additional land designated as Prime Farmland, Farmland of Statewide Importance or Unique Farmland to non-farming uses. Although the conversion of Farmland was anticipated and evaluated under the 2006 General Plan EIR, some vacant FMMP designations remain that could be converted to non-agricultural uses, which would be considered significant.

4.2.7.2 Topic 2: Agricultural Zoning and Williamson Act Contracts

No conflicts with agricultural zoning would occur as the City does not have any exclusive agriculture zones and the project does not include any rezoning. Additionally, the GPU does not propose any land use changes within or adjacent to a Williamson Act Contract. Therefore, impacts related to agricultural zoning and Williamson Act Contracts would be less than significant.

4.2.7.3 Topic 3: Forest Zoning

No Impact would occur. No mitigation would be required.

4.2.7.4 Topic 4: Forest Land

No Impact would occur. No mitigation would be required.

4.2.7.5 Topic 5: Indirect Conversion

Implementation of the project would intensify uses within the Planning Area in a manner that would reduce the feasibility of agricultural production. Furthermore, the continued development of land under the land use designations that would remain unchanged could also indirectly affect the feasibility of agricultural production through continued urbanization. Therefore, the project would potentially result in indirect conversion of potential farmland resources to non-agricultural uses, which would be considered a significant impact.

4.2.8 Mitigation

4.2.8.1 Topic 1: Important Farmland

Feasible mitigation that would meet the objectives of the project does not exist to mitigate direct and cumulative impacts to important farmland to a level less than significant. While enrollment in Williamson Act Contracts would serve to preserve such resources, these contracts are voluntary, and the City could only encourage property owners to participate in the program. Furthermore, property owners would have the option not to renew contracts, which would mean that any protection under the program may only be temporary. The project, like the 2006 General Plan, does not propose any permanent preservation of agricultural land, but allows agriculture as an interim use prior to development. Thus, preservation of agricultural resources would not be feasible as it would be inconsistent with General Plan goals and EIR project objectives.

4.2.8.2 Topic 2: Agricultural Zoning and Williamson Act Contracts

Impacts would be less than significant. No mitigation is required.

4.2.8.3 Topic 3: Forest Zoning

No Impact would occur. No mitigation is required.

4.2.8.4 Topic 4: Forest Land

No Impact would occur. No mitigation is required.

4.2.8.5 Topic 5: Indirect Conversion

Feasible mitigation that would meet the objectives of the project does not exist to mitigate direct and cumulative impacts related to indirect conversion of potential farmland non-agricultural uses to a level less than significant. While enrollment in Williamson Act Contracts would serve to preserve such resources, these contracts are voluntary, and the City could only encourage property owners to participate in the program. Furthermore, property owners would have the option not to renew contracts, which would mean that any protection under the program may only be temporary. The project, like the 2006 General Plan, does not propose any permanent preservation of agricultural land, but allows agriculture as an interim use prior to development. Thus, preservation of agricultural resources in order to avoid agriculture interface conflicts and conversion pressure would not be feasible as it would be inconsistent with General Plan goals and EIR project objectives.

4.2.9 Significance of Impacts after Mitigation

4.2.9.1 Topic 1: Important Farmland

No feasible mitigation is available. Impacts would remain significant and unavoidable.

4.2.9.2 Topic 2: Agricultural Zoning and Williamson Act Contracts

Impacts would be less than significant. No mitigation is required.

4.2.9.3 Topic 3: Forest Zoning

No Impact would occur. No mitigation is required.

4.2.9.4 Topic 4: Forest Land

No Impact would occur. No mitigation is required.

4.2.9.5 Topic 5: Indirect Conversion

No feasible mitigation is available. Impacts would remain significant and unavoidable.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.3, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

4.3 Air Quality

This section analyzes the air quality impacts that could result from implementation of the Project, which consists of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP). The analysis area covers the city of Moreno Valley (City) and sphere of influence, which are collectively referred to as the Planning Area. The analysis in this section is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD) and is based on the existing and future land uses under both the 2024 GPU and the existing 2006 General Plan, the California Air Resources Board (CARB) Emissions Factor model (EMFAC2021), the energy use projections included in the CAP, and vehicle miles traveled (VMT) documented in the Vehicle Miles Traveled (VMT) Assessment (Appendix E). Additional details are provided in the Air Quality Impact Assessment (Appendix B) and Health Effects and Health Risk Assessment (Appendix H).

4.3.1 Existing Conditions

4.3.1.1 South Coast Air Basin

The Planning Area is located within the South Coast Air Basin (Basin), which is under the jurisdiction of the SCAQMD. The 6,745-square-mile Basin encompasses Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and is bound by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and Jacinto mountains to the north and east, respectively, and San Diego County to the south. The Basin is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except 8-hour ozone (O_3) and 2.5-micron particulate matter (PM2.5) standards. The Basin is designated as in nonattainment for state air quality standards for 8-hour O_3 and PM2.5, and additionally is in nonattainment of state 10-micron particulate matter (PM10) standards.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by CARB or federal standards set by the U.S. Environmental Protection Agency (USEPA). The SCAQMD maintains 41 active air quality monitoring sites located

throughout the Basin including eight active sites in Riverside County. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The nearest monitoring stations include the Perris monitoring station, located approximately five miles south of the planning area at 237½ North D Street, and the Riverside – Rubidoux monitoring station, located approximately seven miles northwest of the City at 5888 Mission Boulevard. The Perris monitoring station measures ozone and PM10 (for 2019 through 2021), and the Rubidoux monitoring station measures ozone, nitrogen dioxide (NO_2), PM10, and PM2.5. Table 4.3-1 provides a summary of measurements collected at the Perris and Rubidoux monitoring stations for the years 2019 through 2023.

Table 4.3-1
Summary of Air Quality Measurements Recorded at Perris and Riverside – Rubidoux Monitoring Stations

Pollutant/Standard	2019	2020	2021	2022	2023
Perris Monitoring Station					
Ozone					
Federal Max 8-hr (ppm)	0.095	0.106	0.094	Na	Na
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	64	74	55	Na	Na
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	38	48	38	Na	Na
State Max 8-hr (ppm)	0.096	0.106	0.094	Na	Na
Days State 8-hour Standard Exceeded (0.07 ppm)	66	77	60	Na	Na
Max. 1-hr (ppm)	0.118	0.125	0.117	Na	Na
Days State 1-hour Standard Exceeded (0.09 ppm)	28	34	25	Na	Na
PM10*					
Federal Max. Daily (µg/m^3)	97.0	92.3	77.5	Na	Na
Measured Days Federal 24-hour Standard Exceeded (150 µg/m^3)	0	0	0	Na	Na
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m^3)	0.0	Na	Na	Na	Na
Federal Annual Average (µg/m^3)	25.8	33.4	30.4	Na	Na
State Max. Daily (µg/m^3)	92.1	87.6	73.5	Na	Na
Measured Days State 24-hour Standard Exceeded (50 µg/m^3)	4	6	4	Na	Na
Calculated Days State 24-hour Standard Exceeded (50 µg/m^3)	24.5	Na	Na	Na	Na
State Annual Average (µg/m^3)	24.4	Na	Na	Na	Na
Riverside – Rubidoux Monitoring Station					
Ozone					
Federal Max 8-hr (ppm)	0.096	0.115	0.097	0.095	0.106
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	59	82	55	70	69
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	37	60	32	43	56
State Max 8-hr (ppm)	0.096	0.115	0.098	0.095	0.107
Days State 8-hour Standard Exceeded (0.07 ppm)	63	86	57	72	70
Max. 1-hr (ppm)	0.123	0.143	0.117	0.122	0.139
Days State 1-hour Standard Exceeded (0.09 ppm)	24	46	20	30	48
NO_2					
Max 1-hr (ppm)	0.0560	0.0664	0.0520	0.0559	0.0547
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0	0	0
Annual Average (ppm)	0.014	0.015	0.014	0.013	0.012

Table 4.3-1
Summary of Air Quality Measurements Recorded at Perris and Riverside – Rubidoux Monitoring Stations

Pollutant/Standard	2019	2020	2021	2022	2023
PM10*					
Federal Max. Daily (µg/m³)	132.5	142.1	76.5	153.6	166.5
Measured Days Federal 24-hour Standard Exceeded (150 µg/m³)	0	0	0	0	1
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m³)	0.0	Na	0.0	0.0	1.0
Federal Annual Average (µg/m³)	35.4	49.2	33.4	37.5	33.7
State Max. Daily (µg/m³)	182.4	137.7	114.3	61.9	95.1
Measured Days State 24-hour Standard Exceeded (50 µg/m³)	110	115	75	5	3
Calculated Days State 24-hour Standard Exceeded (50 µg/m³)	116.4	Na	43.7	11.8	Na
State Annual Average (µg/m³)	40.9	Na	33.2	30.0	Na
PM2.5*					
Federal Max. Daily (µg/m³)	55.7	59.9	82.1	38.5	74.3
Measured Days Federal 24-hour Standard Exceeded (35 µg/m³)	5	12	11	1	2
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m³)	5.0	12.0	11.0	1.0	2.1
Federal Annual Average (µg/m³)	11.3	13.3	12.7	10.8	10.6
State Max. Daily (µg/m³)	57.6	61.9	82.1	38.5	744
State Annual Average (µg/m³)	11.2	14.1	13.2	10.9	11.5

SOURCE: CARB 2025.
ppm = parts per million; µg/m³ = micrograms per cubic meter; Na = Not available.
* Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

As shown in Table 4.3-1, there are exceedances of O_3, PM10, and PM2.5 standards. These exceedances occur throughout the Basin. Due to these exceedances, the Basin is designated as nonattainment for federal 8-hour O_3 and PM2.5 standards, and nonattainment for state 8-hour O_3, PM10, and PM2.5 standards. The 2016 and 2022 Air Quality Management Plans (AQMPs) (discussed later under Local Air Quality Regulations) address how the Basin plans to improve air quality and meet the attainment standards.

4.3.1.2 Regional Climate and Meteorology

The Planning Area is located approximately 40 miles northeast of the Pacific Ocean, within Riverside County between the Santa Ana Mountains and the San Jacinto Mountains. Air quality in the county is influenced by both topographical and meteorological conditions.

The Planning Area, like other inland valley areas in southern California, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The March Field climate monitoring station (ID 045326) is located immediately southwest of the Planning Area and the Perris climate monitoring station (ID 046816) is located approximately five miles south of the Planning Area. Based on measurements taken at these climate monitoring stations, the average annual precipitation is 8 to 10 inches, falling primarily from November to April (Western Regional Climate Center 2020). Overall annual temperatures in the Planning Area area average about 62 degrees Fahrenheit (°F), winter low temperatures average about 36°F, and summer high temperatures average about 93°F.

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada–Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

4.3.1.3 Air Pollutants of Concern

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by State and federal laws. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants.

Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compound (VOC), nitrogen oxide (NO_X), sulfur dioxide (SO_2), coarse particulate matter (PM10), fine particulate matter (PM2.5), and lead are primary air pollutants. Of these, CO, NO_X, SO_2, PM10, and PM2.5 are criteria pollutants.[1] VOC and NO_X are criteria pollutant precursors and form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere.[2] For example, the criteria pollutant ozone (O_3) is formed by a chemical reaction between VOC and NO_X in the presence of sunlight. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 4.3-2.

Table 4.3-2
Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM10 and PM2.5)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O_3)	Formed by a chemical reaction between volatile organic compounds (VOC)[1] and nitrogen oxides (NO_X) in the	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing,

[1] U.S. Environmental Protection Agency, Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants. Accessed September 2024.

[2] U.S. Environmental Protection Agency, Criteria Air Pollutants, https://www.epa.gov/criteria-air-pollutants Accessed September 2024.

Table 4.3-2
Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
	presence of sunlight. Motor vehicle exhaust industrial emissions, gasoline storage and transport, solvents, paints and landfills.	and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Sulfur Dioxide (SO_2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O_3. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Table 4.3-2 Air Contaminants and Associated Public Health Concerns		
Pollutant	Major Man-Made Sources	Human Health Effects
1. VOCs or Reactive Organic Gases (ROG) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROGs and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).		
SOURCE: U.S. Environmental Protection Agency, *Criteria Air Pollutants*, https://www.epa.gov/criteria-air-pollutants. Accessed September 2024.		

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that can cause short-term (acute) or long-term (i.e., chronic, carcinogenic or cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and are generally assessed locally, rather than regionally. 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), running nose, throat pain, and headaches.

The current California list of TACs includes more than 200 compounds that includes all federally defined hazardous air pollutants (HAPs).[3] Furthermore, CARB has implemented control measures for several compounds that pose high risks and show potential for effective control. Most of the estimated health risks from TACs can be attributed to a relatively few compounds, most importantly particulate matter from diesel fuel engines.

CARB has identified diesel particulate matter (DPM) as a toxic air contaminant. DPM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles (such as DPM) and gases produced when an engine burns diesel fuel. DPM includes the particle-phase constituents in diesel exhaust. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass

[3] California Air Resources Board, Common Air Pollutants, https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed September 2024.

is 10 microns or less in diameter. Due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.[4]

4.3.2 Applicable Regulatory Requirements

4.3.2.1 Federal Air Quality Regulations

Ambient Air Quality Standards (AAQS) represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (FCAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the FCAA [42 USC 7409], the USEPA developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: O_3, CO, SO_2, NO_2, Pb, PM10, and PM2.5. The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 4.3-3.

4.3.2.2 State Air Quality Regulations

a. California Ambient Air Quality Standards

The USEPA allows states the option to develop different (stricter) standards. The State of California has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants (see Table 4.3-3). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 4.3-3). Similar to the FCAA, the state classifies specific geographic areas as either "attainment" or "nonattainment" areas for each pollutant based on the comparison of measured data with the CAAQS.

The State of California is divided geographically into 15 air basins for managing the air resources of the State on a regional basis. Areas within each air basin are considered to share the same air masses, and therefore are expected to have similar ambient air quality. If an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a moderate, serious, severe, or extreme nonattainment area for that pollutant

[4] California Air Resources Board, Overview: Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed September 2024.

(there is also a marginal classification for federal nonattainment areas). Once a nonattainment area has achieved the air quality standards for a particular pollutant, it may be redesignated to an attainment area for that pollutant. To be redesignated, the area must meet air quality standards and have a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the FCAA. Areas that have been redesignated to attainment are called maintenance areas.

b. Toxic Air Contaminants

A TAC is any air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a present or potential hazard to human health. The public's exposure to TACs is a significant public health issue in California. DPM emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The California Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

Table 4.3-3
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter (PM2.5)[9]	24 Hour	No Separate State Standard		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	9 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m³)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m³)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	–	
	3 Hour	–		–	0.5 ppm (1,300 µg/m³)	

	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chroma-tography			

SOURCE: CARB, 2024.

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; – = not applicable.

1 California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the USEPA for further clarification and current national policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9 On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standards of 15 µg/m³. The existing 24-hour PM10 standards

(primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the Statewide air quality monitoring network, and develop any additional air toxic control measures needed to protect children's health.

In April 2005, CARB published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (e.g., housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence

to this impact analysis, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or an urban road with 100,000 or more vehicles per day should be avoided when possible. Based on vehicle counts conducted by the California Department of Transportation (Caltrans) in 2017, in the vicinity of the city, Interstate 215 (I-215) and State Route 60 (SR 60) currently carry more than 100,000 vehicles per day.

As an ongoing process, CARB continues to establish new programs and regulations for the control of diesel-particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to diesel particulate matter will continue to decline.

c. State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, State regulations, and federal controls. CARB is the lead agency for all purposes related to the SIP under State law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the USEPA for approval and publication in the *Federal Register*. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

As the regional air quality management district, the SCAQMD is responsible for preparing and implementing the portion of the SIP applicable to the Basin. The air pollution control district for each county adopts rules, regulations, and programs to attain federal and state air quality standards, and appropriates money (including permit fees) to achieve these objectives.

4.3.2.3 Regional Air Quality Regulations

a. South Coast Air Quality Management District

The SCAQMD is the air pollution control agency in the Basin. The role of the SCAQMD is to protect the people and the environment of the Basin from the effects of air pollution. SCAQMD shares responsibility with CARB for ensuring that NAAQS and CAAQS are achieved and maintained within the Basin. As the Basin is designated as a nonattainment area for State air quality standards for 8-hour O_3, PM10, and PM2.5, the SCAQMD periodically prepares air quality management plans (AQMPs) outlining measures to reduce these pollutants.

The SCAQMD is responsible for developing each AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies to reduce emissions from stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for

providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, has jurisdiction over mobile sources.

On October 1, 2015, the USEPA strengthened the NAAQS for ground-level O_3. The 2022 AQMP, adopted by the SCAQMD Governing Board on December 2, 2022, was developed to address the strengthened requirements for meeting the 2015 ground-level 8-hour O_3 standard.[5] The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_X technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other FCAA measures to achieve the 2015 8-hour ozone standard. Like earlier AQMPs, the 2022 AQMP incorporates the latest scientific and technological information and planning assumptions, including SCAG's *2020-2045* Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS), or Connect SoCal, and updated emission inventory methodologies for various source categories.[6]

b. SCAQMD Amicus Brief

A recent Supreme Court of California decision, *Sierra Club v. County of Fresno* (2019) 6 Cal.5th 502 ("Friant Ranch"), found that the EIR prepared for the Friant Ranch Specific Plan was inadequate because it did not relate the expected adverse air quality impacts to likely health consequences, or explain why it was not feasible to provide such an analysis. In response, the SCAQMD has provided amicus briefs explaining the difficulties in providing correlation between regional pollutant emissions and human health. Since the implementation of the 2024 GPU would result in emissions of criteria pollutants, the California Supreme Court decision and the SCAQMD's amicus briefs are relevant to the Project.

The California Supreme Court conceded that an explanation of the connection between an individual project's pollutant emissions in excess of thresholds and human health effects may not be possible given the current state of environmental science modeling. However, the California Supreme Court concluded that the Friant Ranch Project EIR itself failed to explain, in a manner reasonably calculated to inform the public, the scope of what is, and is not yet, known, about the effect of a project's significant and unavoidable air quality impacts on human health. The specific language provided by the Court is provided below.

[5] South Coast Air Quality Management District, 2022 Air Quality Management Plan, December 2022, https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16. Accessed September 2024.

[6] Southern California Association of Governments, Connect SoCal (2020–2045 RTP/SCS), Demographics and Growth Forecast adopted September 2020, https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf? 1606001579, accessed September 2024.attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf? 1606001579. Accessed September 2024.

> The EIR fails to provide an adequate discussion of health and safety problems that will be caused by the rise in various pollutants resulting from the Project's development. At this point, we cannot know whether the required additional analysis will disclose that the Project's effects on air quality are less than significant or unavoidable, or whether that analysis will require reassessment of proposed mitigation measures. Absent an analysis that reasonably informs the public how anticipated air quality effects will adversely affect human health, an EIR may still be sufficient if it adequately explains why it is not scientifically feasible at the time of drafting to provide such an analysis.

With regard to the analysis of air quality-related health impacts, the SCAQMD has stated that "EIRs must generally quantify a project's pollutant emissions, but in some cases it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions)." In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient.

The SCAQMD has further stated that, from a scientific standpoint, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. The SCAQMD further acknowledges that it may be feasible to analyze air quality related health impacts for projects on a regional scale with very high emissions of oxides of nitrogen (NOx) and VOCs, where impacts are regional. The example the SCAQMD provided was for proposed Rule 1315, which authorized various newly permitted sources to use offsets from the SCAQMD's "internal bank" of emission reductions. The California Environmental Quality Act (CEQA) analysis accounted for essentially all of the increases in emissions due to new or modified sources in the District between 2010 and 2030, or approximately 6,620 pounds per day of NOx and 89,947 pounds per day of VOC, to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to O_3).

c. Multiple Air Toxics Exposure Study

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study conducted in the Basin. The MATES V (2021) study, study shows the carcinogenic risks from air toxics in the Basin, based on the average concentration at ten monitoring sites, is approximately 40 percent lower than the monitored average in MATES IV (2015) and 84 percent lower than the average in MATES II (2000) (SCAQMD 2021a). MATES V also evaluated the population-weighted cancer risk within Environmental Justice (EJ) communities using the SB 535 definition of DACs.[7] The MATES V study estimates the average excess cancer risk level from exposure to TACs is 424 in one million across the entire Basin. In comparison, the previous MATES IV study had an estimated average risk of 897 in one million.

[7] SB 535 established initial requirements for minimum funding levels to "Disadvantaged Communities" (DACs). The legislation also gives California EPA the responsibility for identifying those communities, stating that the designation of disadvantaged communities must be based on "geographic, socioeconomic, public health, and environmental hazard criteria."

4.3.3 Methodologies for Determining Impacts

4.3.3.1 Air Quality Plan Consistency

The SCAQMD is required, pursuant to the FCAA and California CAA (CCAA), to reduce emissions of those pollutants/precursors for which the Basin is classified as nonattainment of a NAAQS (i.e., O_3 and PM2.5). The SCAQMD's AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQSs. These strategies are developed, in part, based on regional growth projections prepared by SCAG. SCAG has the responsibility of preparing and approving portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities conform to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQSs. The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce VMT, which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG.

As part of its air quality planning, SCAG has prepared the Regional *Comprehensive Plan and Guide and Connect SoCal, the 2024-2050 RTP/SCS*. SCAG's Regional Council adopted the 2024-2050 RTP/SCS in April 2024. The 2024-2050 RTP/SCS was determined to conform to the federally mandated SIP (state implementation plan) for the attainment and maintenance of the NAAQSs. The 2024-2050 RTP/SCS will be incorporated into the SCAQMD's future AQMPs. Both the Regional Comprehensive Plan and the AQMP are based, in part, on projections originating with county and city general plans.

The SCAQMD prepares AQMPs to accommodate growth, reduce the high levels of pollutants within the areas under its jurisdiction, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's numeric indicators.

The CCAA requires air pollutant control districts (APCDs) and AQMDs (air quality management districts) in the State to aim to achieve and maintain CAAQs by the earliest practical date and to develop AQMPs and regulations specifying how the districts will meet this goal. California law does not specify a date by which an air basin must meet the CAAQSs. Rather, according to CARB, California law requires incremental progress toward attainment.[8] California law continues to mandate compliance with the CAAQSs, although attainment of the NAAQSs has precedence over attainment of the CAAQSs due to federal

[8] CARB, California Ambient Air Quality Standards, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed November 2024.

penalties for failure to meet federal attainment deadlines.[9] The AQMPs also serve as the basis for preparation of the SIP for meeting the NAAQSs.

4.3.3.2 Construction Emissions

Construction-related activities are temporary, short-term sources of air emissions. Sources of construction-related air emissions include the following:

- Fugitive dust from grading activities;
- Construction equipment exhaust;
- Construction-related trips by workers, delivery trucks, and material-hauling trucks; and
- Construction-related power consumption.

Implementation of the 2024 GPU would lead to construction of various projects throughout the City at any given point. Additionally, quantifying individual future developments' air emissions from short-term, temporary construction-related activities is not possible due to project-level variability and uncertainties concerning detailed site plans, construction schedules or duration, equipment requirements, etc., among other factors, which are presently unknown. Given these variabilities, precisely calculating construction emissions from all future development is not feasible and would not yield meaningful results. Where criteria air pollutant quantification was required, emissions were based on a programmatic understanding of the 2024 GPU (i.e., using general assumptions publicly available through agencies such as CARB and the SCAQMD). The construction equipment fleet was assumed to operate continuously in the City. The inventory of construction equipment was based on the CARB model, EMFAC (Emission Factors) off-road inventory. The approach assumes the average of all construction equipment currently operating in the City would operate simultaneously on any given day for an entire year. This would result in a conservative scenario as construction phases would not necessarily overlap. The calculated air pollutant emissions during construction will be compared to the SCAQMD regional thresholds of significance.

4.3.3.3 Operational Emissions

Implementation of operations after the buildout of the 2024 GPU would result in emissions of area sources (consumer products), energy sources (natural gas usage), and mobile sources (motor vehicles from project generated vehicle trips). Project-generated increases in operational emissions would be predominantly associated with motor vehicle use. Trip generation data was derived from the Riverside County Travel Demand Model (RIVCOM) for buildout of the Project and approved projects, provided by the City, between 2018 and 2024.

According to the SCAQMD guidance on General Plans, the SCAQMD and CARB have strong, comprehensive regulatory programs for new and existing sources of air pollution. However, local policies can enhance the effectiveness of these programs by addressing cumulative

[9] *Ibid.*

impacts in local areas. Note that the SCAQMD significance thresholds for criteria pollutants do not distinguish between project-level Environmental Impact Reports (EIRs) (e.g., for an individual development) and program-level EIRs (e.g., for a long-range plan). The 2024 GPU addresses the development of various land uses on a programmatic level. Therefore, the application of the SCAQMD thresholds for individual project-level impacts to a Citywide land use plan within a program-level EIR is highly conservative.

No specific development projects are currently proposed. Operations of future development projects under implementation of the 2024 GPU would result in emissions of area sources (i.e., consumer products, architectural coating, and landscape equipment), energy sources (i.e., natural gas usage for space and water heating and cooking), and mobile sources (i.e., motor vehicles from generated vehicle trips generated by implementation of the 2024 GPU. Each of these sources are described below.

- **Area Source Emissions.** Area source emissions would be generated due to household equipment, architectural coating, and landscaping that may be conducted on each future development site.
- **Energy Source Emissions.** Energy source emissions would be generated due natural gas usage associated with the future development operations. Primary uses of natural gas resulting from the buildout of the 2024 GPU would be for heating and cooking.
- **Mobile Source.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, PM10, and PM2.5 are all pollutants of regional concern. NO_X and ROG/VOC react with sunlight to form O_3, known as photochemical smog. Additionally, wind currents readily transport PM10, and PM2.5. However, CO tends to be a localized pollutant, dispersing rapidly at the source. Operations-generated vehicle emissions are based on the trip generations and would be incorporated into future studies and CalEEMod (California Emissions Estimator Model) as recommended by the SCAQMD.

4.3.3.3 Operational Emissions

The SCAQMD *CEQA Air Quality Handbook* states that the "Handbook is intended to provide local governments, project proponents, and consultants who prepare environmental documents with guidance for analyzing and mitigating air quality impacts of projects."[10] The SCAQMD CEQA Air Quality Handbook also states that "[f]rom an air quality perspective, the impact of a project is determined by examining the types and levels of emissions generated by the project and its impact on factors that affect air quality. As such, projects should be evaluated in terms of air pollution thresholds established by the District." The SCAQMD has also provided guidance on an acceptable approach to addressing the

[10] South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

cumulative impacts issue for air quality as discussed: "As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR… Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[11]

Therefore, consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the potential for implementation of the 2024 GPU to result in cumulative impacts from regional emissions is assessed based on the SCAQMD project-level thresholds.

4.3.4 Basis for Determining Significance

Thresholds used to evaluate impacts to air quality are based on applicable criteria in the CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000-15387), Appendix G. A significant impact would occur if a project would:

1) Conflict with or obstruct implementation of the applicable air quality plan;
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standards;
3) Expose sensitive receptors to substantial pollutant concentrations; or
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.3.4.1 SCAQMD Significance Thresholds

As discussed previously, the SCAQMD is the air pollution control agency responsible for protecting the people and the environment of the Basin from the effects of air pollution. Accordingly, the City evaluates project air quality emissions based on the quantitative emission thresholds originally established in the SCAQMD's CEQA Air Quality Handbook (SCAQMD 1993, 2019).

a. Regional Significance Thresholds

The SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the Basin. The SCAQMD's significance thresholds for impacts to regional air quality are shown in Table 4.3-4.

[11] South Coast Air Quality Management District, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D, 2003.

Table 4.3-4 South Coast Air Quality Management District Emissions Thresholds		
Criteria Air Pollutants and Precursors	Daily Emissions (pounds/day)	
	Construction-Related	Operational-Related
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO_X)	100	55
Sulfur Oxides (SO_X)	150	150
Coarse Particulates (PM10)	150	150
Fine Particulates (PM2.5)	55	55
SOURCE: South Coast Air Quality Management District, *CEQA Air Quality Significance Thresholds,* March 2023.		

Projects that exceed the regional significance threshold contribute to the nonattainment designations of the Basin. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Projects that do not exceed the regional significance thresholds in Table 4.3-4 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

b. Localized Significance Thresholds

The SCAQMD's Final Localized Significance Threshold (LST) Methodology was developed as a tool to assist lead agencies to analyze localized air quality impacts to sensitive receptors in the vicinity of a project. Emissions of NO_2, CO, PM10, and PM2.5 generated at a project site could expose sensitive receptors to substantial concentrations of criteria air pollutants. Off-site mobile-source emissions are not included in the LST analysis. A project would generate a significant impact if it generates emissions that would violate the NAAQS or CAAQS (see Table 4.3-3) when added to the local background concentrations.

LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is required for all projects that disturb 5 acres or less on a single day. The City is located within SCAQMD SRA 24 (Perris Valley). Table 4.3-5 presents the SRA 24 LST values for construction within 25 meters (82 feet) of sensitive receptors, which are the most conservative thresholds. While these supplemental analyses are not conducted for the 2024 GPU as it is a programmatic analysis and absence of proposed physical development, future development resulting from the implementation of the 2024 GPU would be required to comply with this regulation.

Table 4.3-5 Moreno Valley Localized Significance Thresholds Within 25 Meters of Sensitive Receptors				
Project Size	Nitrogen Oxide (NO_x) lbs/day	Carbon Monoxide (CO) lbs/day	Coarse Particulates (PM10)[1] lbs/day	Fine Particulates (PM2.5)[1] lbs/day
1 Acre	118	602	4 (cons) 1 (ops)	3 (cons) 1 (ops)

Table 4.3-5 Moreno Valley Localized Significance Thresholds Within 25 Meters of Sensitive Receptors				
Project Size	Nitrogen Oxide (NO_x) lbs/day	Carbon Monoxide (CO) lbs/day	Coarse Particulates (PM10)[1] lbs/day	Fine Particulates (PM2.5)[1] lbs/day
2 Acres	170	883	7 (cons) 2 (ops)	4 (cons) 1 (ops)
5 Acres	270	1,577	13 (cons) 4 (ops)	8 (cons) 2 (ops)
SOURCE: South Coast Air Quality Management District, *Localized Significance Threshold Methodology,* July 2008. 1. LSTs for PM10 and PM2.5 are different values for construction (cons) and operations (ops).				

LSTs associated with all acreage categories are provided in Table 4.3-5 for informational purposes. Table 4.3-5 shows that the LSTs increase as acreages increase. It should be noted that LSTs are screening thresholds and are therefore conservative. The construction LST acreage is determined based on daily acreage disturbed. The operational LST acreage is based on the total area of the individual project site. Further detailed analysis is included in the Health Effects and Health Risk Assessment (HEHRA) (Appendix H).

Health Risk Thresholds

Project health risks are determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the lead agency's purview pursuant to the CEQA Guidelines, the SCAQMD recommends that lead agencies use the following air pollution thresholds in determining whether a project's impacts are significant. If the lead agency finds that a project has the potential to exceed the air pollution thresholds, the project's impacts should be considered significant. Table 4.3-6 lists the TAC incremental risk thresholds for operation of a project.

Table 4.3-6 SCAQMD Incremental Risk Thresholds for TACs	
Incremental Risk	Threshold
Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden	> 0.5 excess cancer cases (in areas ≥ 1 in 1 million)
Chronic & Acute Hazard Index (project increment)	≥ 1.0 (project increment)
SOURCE: South Coast Air Quality Management District, CEQA Air Quality Significance Thresholds, March 2023.	

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD adopted a threshold of an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to TAC exposure. This threshold is an upper-bound incremental probability to determine whether a given project has a potentially significant development-specific and cumulative impact, and to ensure an individual new source does not contribute a cumulatively significant impact. The 10 in one million standard

is a health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons out of one million equally exposed persons would contract cancer if exposed continuously (24 hours per day) to the TAC levels over a 30-year timeframe. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these TACs.

The SCAQMD has also established non-carcinogenic risk parameters for use in Health Risk Assessments (HRAs). Noncarcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). A REL is a concentration at, or below which health effects are not likely to occur. A hazard index of less than 1.0 means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant. Further detailed analysis is included in the HEHRA (Appendix H).

4.3.5 Impact Analysis

4.3.5.1 Topic 1: Air Quality Plans

Would the project conflict with or obstruct implementation of the applicable air quality plan?

As discussed previously, the SCAQMD Governing Board adopted the 2022 AQMP on December 2, 2022. However, the USEPA's approval of the 2022 AQMP portion of the SIP is still pending. Therefore, this analysis evaluates consistency with the 2016 AQMP (adopted by the SCAQMD Governing Board on March 3, 2017, and submitted to the USEPA on December 29, 2020) and the 2022 AQMP.

The AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving NAAQSs and CAAQSs. The AQMP is a regional and multi-agency effort involving the SCAQMD, the CARB, the SCAG, and the USEPA. The AQMP pollutant control strategies and measures are based on the latest scientific and technical information and planning assumptions, including SCAG's RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG is SCAQMD's partner in the preparation of the AQMP, providing the latest economic and demographic forecasts and developing transportation measures. Regional population, housing, and employment projects developed by SCAG are based, in part, on general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP.

Criteria for determining consistency with the AQMP are defined in the SCAQMD CEQA Handbook, Chapter 12, Section 12.2, and Section 12.3. The two principal criteria for conformance with an AQMP are:

- **Consistency Criterion No. 1**: Whether a project would exceed the assumptions in the AQMP.

- **Consistency Criterion No. 2**: Whether a project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timeline attainment of air quality standards.

According to the SCAQMD's *CEQA Air Quality Handbook*, the purpose of the consistency finding is to determine if a project is inconsistent with the goals, objectives, and assumptions of the regional air quality plans, and thus if it would interfere with the region's ability to comply with CAAQS and NAAQS.[12] A project may be inconsistent with the AQMP if it would generate substantial population, housing, or employment growth that exceeds forecasts used in the development of the AQMP or if the Project is inconsistent with applicable AQMP control measures.

Criterion 1

Table 4.3-7 compares the population and employment growth forecast under implementation of the 2024 GPU to the existing conditions. Table 4.3-7, shows the implementation of the 2024 GPU would result in an increase in VMT because of population growth; however, VMT per service population would decrease from the existing conditions. Implementation of the 2024 GPU would result in significant and unavoidable transportation impacts related to VMT. As such, implementation of the Project would not be consistent with the AQMP under the first criterion.

Table 4.3-7
Comparison of Population and Employment Forecast

Scenario	Existing (2024)	2024 GPU (2040)	Change from Existing	
			Change	Percentage
Population[1]	205,620	298,440	92,820	45%
Employment[1]	65,378	104,371	38,993	60%
Total OD VMT[2]	8,846,399	12,669,735	3,823,336	43%
OD VMT/SP[3]	32.64	31.45	-1.19	-3.6%

SOURCE: Kimley-Horn and Associates, 2025.
1. Population and employment values vary as the population value in the SB 743 (2013) modeling includes group quarters and households.
2. OD = Origin/Destination; sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations.
3. SP = Service Population; the sum of population, enrollment and employment.

Criterion 2

The Basin is designated nonattainment for O_3 and PM2.5 under the CAAQSs and NAAQSs, nonattainment for NO_2 along SR 60 under the CAAQSs, nonattainment for PM10 under the CAAQSs, and nonattainment for lead (Los Angeles County only) under the NAAQSs (CARB 2023). Because implementation of the 2024 GPU involves long-term growth associated with buildout of the City, cumulative emissions generated from operation of individual development projects would exceed the SCAQMD thresholds (see Topic 2 and Topic 3).

[12] South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

Consequently, emissions generated by development projects in addition to existing sources in the City are considered to cumulatively contribute to the nonattainment designations of the Basin. Buildout of the proposed land use plan associated with implementation of the 2024 GPU could contribute to an increase in frequency or severity of air quality violations and delay attainment of the NAAQSs, CAAQs, or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact. Therefore, implementation of the 2024 GPU would potentially be inconsistent with the AQMP.

A main objective of the 2024 GPU is to provide a flexible land use framework that can accommodate job growth in a variety of industries over time while enhancing quality of life in the community. Operation of development under the implementation of the 2024 GPU would generate criteria air pollutant emissions associated with area, energy, and mobile sources. Future development emissions, depending on project type and size, could exceed the SCAQMD project-specific thresholds shown in Table 4.3-4**.** These projects would be required to undergo independent, project-level CEQA review and include mitigation measures, if necessary, to address potentially significant impacts. This would generally reduce air pollutant emissions for most projects, although not all, to a less-than-significant level under project thresholds.

Consistency with the 2016 AQMP and 2022 AQMP is also a function of consistency with applicable AQMP control measures. The AQMPs include specific control measures to reduce air pollutant emissions to meet NAAQSs and CAAQSs. One of the most important methods the AQMP relies on to achieve its goals is the use of transportation control measures (TCMs). TCMs are defined in the 2016 AQMP and 2022 AQMP as projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing transportation emissions sources and improving air quality.[13,14] TCMs include the following three main categories of transportation improvement projects and programs: (1) transit, intermodal transfer, and active transportation measures; (2) high occupancy vehicle (HOV) lanes, high occupancy toll (HOT) lanes, and their pricing alternatives; and (3) information-based transportation strategies.

Additionally, the various policies would help reduce air pollutant emissions through promoting transportation and land use design factors such as promoting public transit, alternative transportation, and carpooling that would result in VMT reductions. For example, 2024 GPU Circulation Element Policy C.5-1 works to reduce VMT through land use planning, enhanced transit access, localized attractions, and access to non-automotive modes; 2024 GPU Circulation Element Policy C.5-3 encourages bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution; 2024 GPU Circulation Element Policy C.5-4 promotes pedestrian, bicycle, and transit usage through collaboration with service providers and the inclusion of amenities like bus shelters and benches; 2024 GPU Circulation Element Policy C.5-5 encourages local employers to implement Transportation Demand Management (TDM) strategies, such as shared ride programs and alternative work schedules; and 2024 GPU Circulation Element

[13] South Coast Air Quality Management District, Final 2016 Air Quality Management Plan, March 2017.

[14] South Coast Air Quality Management District, 2022 Air Quality Management Plan, December 2022.

Policy C.4-2 collaborates with major employers and other stakeholders to improve access and connectivity to key destinations. Additionally, 2024 GPU Environmental Justice Element Policy EJ.1-5 commits the City to continue purchasing or leasing fuel-efficient and low emissions vehicles for City fleet vehicles.

Implementation of the 2024 GPU would not conflict with implementation of TCMs from the AQMPs, or otherwise lessen emissions reductions associated with these measures. Compliance with the 2024 GPU General Plan policies described above would help reduce reliance on automobiles and increase use of alternative transportation modes. However, as shown in Table 4.3-7, buildout of the existing land use designations would gradually increase population, employment, and VMT. Implementation of the 2024 GPU would result in a slight increase in per capita VMT compared to the existing baseline due to the forecast population increase, which relies on SCAG's growth forecasts. Additionally, as discussed below, the 2024 GPU development potential would exceed SCAQMD thresholds and implementation of all SCAQMD rules, regulations, and control measures may not be feasible for future development projects. As such, impacts in this regard would be significant and unavoidable despite the fact that the 2024 GPU would be consistent with SCAG and AQMP growth forecasts. Although the 2024 GPU would include policies to reduce air pollutant emissions through the promotion of transportation and land use design factors, Project implementation would not be consistent with the AQMP. Impacts would be significant and unavoidable.

4.3.5.2 Topic 2: Criteria Pollutants

Would the result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standards?

The 2024 GPU does not directly propose the development of specific activities within the City. Instead, the 2024 GPU involves regulatory modifications which could facilitate land development in the future. Growth in the City would require construction emissions and result in operation from sources that would generate air quality emissions. City-wide it is difficult to estimate these patterns of growth. However, the City-wide analysis is included below.

a. Construction Emissions

Future development implementing the 2024 GPU would result in air pollutant emissions generated during construction activities. Construction emissions would occur from the burning of fossil fuels and the generation of PM through fugitive dust and fuel combustion. Construction vehicles such as hauling trucks and ground-moving machinery would contribute to temporarily increased pollutant emissions. Construction activities during phases such as demolition, site grading, and road paving would also result in the generation of emissions.

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the vicinity of the

individual construction site(s). Uncontrolled dust from construction can become a nuisance and potential health hazard to those working and living nearby.

Construction activities associated with future development would occur in incremental phases over time based upon numerous factors, including market demand and economic and planning considerations. Construction activities could include grading, demolition, excavation, cut-and-fill, paving, building construction, and application of architectural coatings. In addition, construction worker vehicle trips, building material deliveries, soil hauling, etc. would occur during construction. Construction-related emissions are typically site-specific and depend upon multiple variables. Quantifying individual future developments' air emissions from short-term, temporary construction-related activities is not possible due to project-level variability and uncertainties concerning detailed site plans, construction schedules/duration, equipment requirements, etc., among other factors, which are presently unknown. Since these parameters can vary widely, and individual project-related construction activities would occur over time which is dependent upon numerous factors, quantifying precise construction-related emissions and impacts would be impractical and speculative. City-wide construction could overlap and occur simultaneously at variety of project sites. The emissions of criteria pollutants for City-wide construction in 2024 and 2040 are reported in Table 4.3-8. This analysis would include equipment registered in Riverside County scaled down to the individual City land mass. Therefore, this is a conservative worst-case estimate.

Table 4.3-8
Project Construction Criteria Pollutant Emissions

Construction Year	Maximum Pounds Per Day					
	VOC[1]	NO_X	CO	SO_x	PM10	PM2.5
2024	190	1,464	2,019	4	68	62
2040	142	474	1,986	3	21	18
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Exceed SCAQMD Threshold?	Yes	Yes	Yes	No	No	No

VOC = Volatile Organic Compounds; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_x = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less.

Refer to Appendix B for calculations.

The results summarized in Table 4.3-8 show that the 2024 GPU's regional criteria pollutant emissions during construction would exceed applicable thresholds for VOC, NO_X, and CO. Pollutants such as SO_X, PM10, and PM2.5, would not exceed applicable thresholds. However, compared to baseline construction emissions (2024 construction year) criteria pollutants such as VOC, NO_X, PM10, and PM2.5 would decrease as construction equipment fleets became cleaner. CO and SO_X would remain relatively consistent due to lack of technology readily commercially available for those pollutants. Depending on how development proceeds, construction-related emissions associated with future individual development could exceed SCAQMD thresholds of significance.

b. Operational Emissions

According to the SCAQMD guidance on General Plans the AQMD and CARB have strong, comprehensive regulatory programs for new and existing sources of air pollution. However, local policies can enhance the effectiveness of these programs by addressing cumulative impacts in local areas. Note that SCAQMD significance thresholds for criteria pollutants do not distinguish between project-level Environmental Impact Reports (EIRs) (e.g., for an individual development) and program-level EIRs (e.g., for a long-range plan). The 2024 GPU addresses the development of various land uses on a programmatic level. Therefore, the application of the SCAQMD thresholds for individual project-level impacts to a Citywide land use plan within a program-level EIR is highly conservative.

As described above, operations of future development projects under implementation of the 2024 GPU would result in emissions of area sources (e.g., consumer products, architectural coating, and landscape equipment), energy sources (i.e., natural gas usage for space and water heating and cooking), and mobile sources (i.e., motor vehicles from vehicle trips generated by implementation of the proposed Project). Although no specific development projects are proposed at this time, future development operational emissions would be associated with area sources, energy sources, and mobile sources.

In analyzing cumulative impacts, an analysis must specifically evaluate a development's contribution to the cumulative increase in pollutants for which the CARB is designated as nonattainment for either the CAAQSs and NAAQSs. The Basin is designated as a federal nonattainment area for O_3, and PM2.5. The Basin is designated as a State nonattainment area for O_3, PM2.5, and PM10. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the Basin. The nonattainment status of these and other criteria pollutants are presented in Table 4.3-5. Future development would be required to demonstrate that VOC, NO_x, CO, SO_2, PM10, and PM2.5 emissions would be below the significant thresholds for both construction and operational activities. Shown below, Table 4.3-9 presents the criteria air pollutant emissions for City-wide operational in 2024 (existing) and 2040.

Table 4.3-9
Operational Criteria Pollutant Emissions

Source	Maximum Pounds Per Day[1]					
	VOC	NO_X	CO	SO_x	PM10	PM2.5
2024 Existing						
Area	4,902	142	16,392	1	1	1
Energy	33	1,111	263	4	45	45
Mobile[2]	3,298	3,890	31,941	73	4,240	1,102
Total Emissions	**8,233**	**5,142**	**48,596**	**78**	**4,286**	**1,148**
2040 Operations						
Area	5,956	200	23,223	1	1	1
Energy	59	1,573	457	7	82	82
Mobile[2]	2,721	2,509	27,936	78	6,024	1,536
Total Emissions	**8,736**	**4,283**	**51,617**	**86**	**6,107**	**1,620**
Net	+503	-859	+3,020	+8	+1,821	+472

VOC = Volatile Organic Compounds; NO_X = Nitrogen Oxides; CO = Carbon Monoxide; SO_x = Sulfur Dioxide; PM10 = Particulate Matter 10 microns in diameter or less; PM2.5 = Particulate Matter 2.5 microns in diameter or less.
1. Total emissions may be off due to rounding.
2. The mobile emissions include brake wear, tire wear, re-entrained road dust, and vehicle exhaust.

Refer to Appendix B for calculations.

4.3.5.3 Topic 3: Sensitive Receptors

Would the project expose sensitive receptors to substantial pollutant concentrations?

a. Localized Pollutant Concentrations Analysis

As the specific details (e.g., size, construction phasing, equipment, earthwork volumes, etc.) for individual future residential projects are unknown at this time, project-level analysis for localized pollutant concentrations impacts cannot be accurately determined using the SCAQMD's LST analysis methodology. LSTs were developed in response to the SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised July 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level projects and are not applicable to regional projects such as general plans or other long-term planning documents. The SCAQMD provides the LST lookup tables based on distance from the project (meters) for one-, two-, and five-acre projects emitting CO, NO_X, PM10, or PM2.5. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

As previously described, LSTs are applicable at the project-specific level and are not applicable to long-term planning documents such as a general plan. Depending on the size

and location of each individual future development, construction and operational emissions could exceed LSTs. Future development projects' compliance with policies pertaining to air quality, SCAQMD rules and regulations, and supplemental mitigation measures (if required) would reduce air pollutant emissions. However, the potential emissions reductions from implementation of these measures cannot be quantified because specific details such as individual project size, construction scheduling, and earthwork quantities that would occur within the City is not available. Therefore, it is not feasible to conclude that air pollutant emissions from future development projects would be reduced to levels below the SCAQMD LST thresholds. Therefore, localized air quality impacts would be significant and unavoidable.

b. Toxic Air Contaminants

One of the highest public health priorities is the reduction of DPM generated by vehicles on California's freeways and highways, as it is one of the primary TACs with the most direct and common implications for respiratory health problems. Per CARB criteria, heavily traveled roadways where average daily traffic (ADT) volumes exceed 100,000 vehicles can be sources of DPM from diesel-fueled engines (e.g., heavy-duty trucks). As discussed above, implementation of the 2024 GPU does not propose any development; however, it would facilitate future development. Future development under the implementation of the 2024 GPU is evaluated at a programmatic level, as discussed above. Future development projects will vary regarding construction intensity, duration, and location, and impacts of air quality will vary as well.

As described above, the MATES V study represents the baseline health risk for a cumulative analysis. MATES V estimates the average excess cancer risk level from exposure to TACs is 424 in one million Basin-wide.[15] These model estimates were based on monitoring data collected at ten fixed sites within the Basin. None of the fixed monitoring sites are near the Planning Area.[16] However, MATES V has extrapolated the excess cancer risk levels throughout the Basin by modeling specific grids. MATES V modeling predicted an excess cancer risk of 359 in one million in Moreno Valley.[17] DPM is included in this cancer risk along with all other TAC sources. DPM accounts for approximately 70.8 percent of the total risk.

Mobile Source Air Toxics (MSAT) include nine compounds with significant contributions from mobile sources that are among the highest cancer risk drivers. These priority MSAT include 1,3-butadiene, acetaldehyde, acrolein, benzene, DPM, ethylbenzene, formaldehyde,

[15] South Coast Air Quality Management District, *MATES V Multiple Air Toxics Exposure Study in the South Coast AQMD*, August 2021, https://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf. Accessed April 2025.

[16] The Rubidoux MATES Monitoring Station is the closest to Moreno Valley (located approximately 10 miles to the northwest) and has a residential cancer risk of 769 per million (https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23?views=view_38). Accessed April 2025.

[17] South Coast Air Quality Management District, *MATES V Multiple Air Toxics Exposure Study in the South Coast AQMD*, August 2021, https://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf. Accessed April 2025.

naphthalene, and polycyclic organic matter.[18] DPM is the dominant component making up 36 to 56 percent of all priority MSAT pollutants by mass, depending on year analyzed. The MSAT analysis is primarily intended for highway projects, however, as traffic volumes on roadways within the City would increase, a qualitative MSAT analysis is provided.

According to the Federal Highway Administration (FHWA) guidance[19] (2023) projects with potential to have meaningful differences in MSAT between alternatives should

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location, involving a significant number of diesel vehicles for new projects or accommodating with a significant increase in the number of diesel vehicles for expansion projects; or
- Create new capacity or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year;

  And also

- Be proposed to be located in proximity to populated areas.

The 2024 GPU would not fall into any of the three categories listed above. See the HEHRA, Appendix H, pages 5-6, for more detailed explanation.

c. Construction Health Risk

Exhaust from diesel engines contains a mixture of gases and solid particles. These solid particles are known as DPM. DPM contains hundreds of different chemicals, many of which are harmful to human health. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur throughout the sites of individual future development projects under implementation of the 2024 GPU.

The specific locations, amount of heavy equipment use, and duration of construction activity resulting from implementation of the 2024 GPU are not currently known. Future development projects would be subject to various regulations to minimize construction exhaust. For example, in accordance with California Off-Road Diesel-Fueled Fleet Regulations[20], equipment operators shall be registered using the Diesel Off-Road Online

[18] Federal Highway Administration, Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, January 2023, https://www.fhwa.dot.gov/ENVIRonment/air_quality/air_toxics/policy_and_guidance/msat/fhwa_nepa_msat_memorandum_2023.pdf. Accessed January 2025.

[19] Ibid.

[20] CARB, Off-Road Zone - DOORS Resources, 2025, https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/doors-resources. Accessed April 2025.

Reporting System (DOORS)[21], and diesel-powered construction equipment with 25 horsepower or greater engines shall meet exhaust PM and NO_X emissions standards. Additionally, Section 2485 and Section 2449 of Title 13 of the CCR limits diesel-fueled motor vehicle idling to no more than five minutes. Section 2449 limits idling for off-road diesel-fueled fleets. Section 2485 limits idling for diesel-fueled commercial motor vehicles with gross vehicle weight rating (GVWR) of greater than 10,000 pounds that are or must be licensed to operate on publicly maintained highways and streets within California. Construction implementing the 2024 GPU is subject to and would be required to comply with California regulations limiting equipment exhaust and limiting heavy-duty construction equipment idling to no more than five minutes, which would further reduce potential diesel exhaust emissions associated with construction. Additionally, entitlements for large projects are typically subject to discretionary approvals, and subsequent air quality analysis is required pursuant to CEQA to demonstrate that projects would not result in air quality impacts at nearby receptors.

As noted above, construction activities would limit idling to no more than five minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense period of construction, emissions of DPM would be generated from different locations on the sites rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time. However, construction heath risk would result in a potentially significant impact.

d. Operational Health Risk

The HEHRA includes background, methodology, and analysis for the dispersion modeling prepared in connection with the 2024 GPU (see Appendix H). The reported annual pollutant concentrations in Table 4.3-10 are at the closest maximally exposed individual (MEI) to the sources of DPM for each industrial area.

Table 4.3-10
Carcinogenic Risk Assessment

Location/Receptor Type		Cancer Risk (Risk per Million)[1]		Significance Threshold (Risk per Million)	Exceeds Significance Threshold?
Area	Description	2024	2040		
Residential Receptors					
Area 1	Western Terminus of Carman Lane, northwest of the Iris Ave. and St. Croix St. intersection	2.94	3.38	10	No
Area 2	Northeast corner of the Cottonwood Ave. and Edgemont St. intersection	5.36	6.97	10	No
Area 3	North of Ironwood Ave., between Davis St. and Kevin St.	4.19	6.07	10	No

[21] Ibid.

Area 4	Redlands Blvd., between Encelia Ave. and Eucalyptus Ave.	4.98	7.02	10	No
Area 5	Northwest corner of Lexington Way and Canterbury Downs Way	2.32	4.35	10	No
Student Receptors					
Area 1	Rainbow Ridge Elementary School, 15950 Indian St.	0.28	0.28	10	No
Area 2	Pacific View Charter School, 22695 Alessandro Blvd.	1.50	2.09	10	No
Area 3	Options for Youth, 23651 Sunnymead Blvd.	1.04	1.45	10	No
Area 4	Calvary Chapel Christian School, 28010 Ironwood Ave.	1.94	2.34	10	No
Area 5	Ridge Crest Elementary School, 28500 John F Kennedy Dr.	1.81	2.32	10	No
Worker Receptors					
Area 1	Eastern Municipal Water District, southwest corner of the Edwin Road and Kitching St. intersection	0.47	0.63	10	No
Area 2	Northwest corner of Cottonwood Ave. and Old 215 Frontage Rd. intersection	1.62	1.72	10	No
Area 3	Northwest corner of Hemlock Ave and Heacock St.	1.88	2.60	10	No
Area 4	Eucalyptus Ave. east of B St. (Riverside County Fire Station)	0.57	0.76	10	No
Area 5	Southwest of the SR 60 and Redlands Blvd. interchange	0.32	0.50	10	No
1. The reported annual pollutant concentration is at the closest maximally exposed individual (MEI) to the Project. The exposure duration for 2040 conditions were conservatively modeled to start in 2025 to use worst-case emissions rates.					
Refer to Appendix H for calculations.					

As shown in Table 4.8-10 the cancer risk for each area would not exceed the SCAQMD's 10 in one million threshold (see the HEHRA, Appendix H section 4.1-4.2, for more details).

The significance thresholds for TAC exposure also require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. RELs are

designed to protect sensitive individuals within the population. According to OEHHA, the REL for DPM is 5 and the target organ is the respiratory system.[22]

Chronic non-carcinogenic impacts are shown in Table 4.8-11. A chronic hazard index of 1.0 is considered significant. The hazard index is calculated by dividing the chronic exposure by the reference exposure level. The chronic hazard was calculated based on the highest annual average concentration at the MEIR. It should be noted that there is no acute REL for DPM and acute health risk cannot be calculated.

[22] California Office of Environmental Health Hazard Assessment, *OEHHA Acute, 8-hour and Chronic Reference Exposure Level (REL) Summary*, https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary. Accessed January 2025.

Table 4.3-11
Chronic Hazard Assessment

Location/Receptor Type		Chronic Hazard		Hazard Index Threshold	Exceeds Significance Threshold?
Area	Description	2024	2040		
Residential Receptors					
Area 1	Western Terminus of Carman Lane, northwest of the Iris Ave. and St. Croix St. intersection	0.0010	0.0008	1	No
Area 2	Northeast corner of the Cottonwood Ave. and Edgemont St. intersection	0.0018	0.0017	1	No
Area 3	North of Ironwood Ave., between Davis St. and Kevin St.	0.0014	0.0017	1	No
Area 4	Redlands Blvd., between Encelia Ave. and Eucalyptus Ave.	0.0017	0.0021	1	No
Area 5	Northwest corner of Lexington Way and Canterbury Downs Way	0.0008	0.0012	1	No
Student Receptors					
Area 1	Rainbow Ridge Elementary School, 15950 Indian St.	0.0009	0.0007	1	No
Area 2	Pacific View Charter School, 22695 Alessandro Blvd.	0.0048	0.0045	1	No
Area 3	Options for Youth, 23651 Sunnymead Blvd.	0.0034	0.0040	1	No
Area 4	Calvary Chapel Christian School, 28010 Ironwood Ave.	0.0063	0.0072	1	No
Area 5	Ridge Crest Elementary School, 28500 John F Kennedy Dr.	0.0058	0.0071	1	No
Worker Receptors					
Area 1	Eastern Municipal Water District, southwest corner of the Edwin Road and Kitching St. intersection	0.0007	0.0007	1	No
Area 2	Northwest corner of Cottonwood Ave. and Old 215 Frontage Rd. intersection	0.0024	0.0019	1	No
Area 3	Northwest corner of Hemlock Ave and Heacock St.	0.0028	0.0034	1	No
Area 4	Eucalyptus Ave. east of B St. (Riverside County Fire Station)	0.0008	0.0010	1	No
Area 5	Southwest of the SR 60 and Redlands Blvd. interchange	0.0005	0.0006	1	No

1. The reported annual pollutant concentration is at the closest maximally exposed individual (MEI) to the Project.

Refer to Appendix H, HEHRA for calculations.

The highest maximum chronic hazard index associated with DPM emissions from industrial operations within the City would be 0.0021 at the residential receptor in Area 4, 0.0072 at the student receptors in Area 4, and 0.0034 at the worker receptor in Area 3. However, these levels are far below the hazard index threshold of 1. Therefore, chronic hazard impacts are less than significant (see the HEHRA, Appendix H, section 4.3, for more details).

Industrial Land Uses

Warehousing or industrial operations generate substantial DPM emissions from off-road equipment use, truck idling, and/or use of transport refrigeration units for cold storage. Implementation of the 2024 GPU would accommodate approximately 41.1 million square-feet of additional industrial or warehousing developments that could generate new sources of TACs.

However, due to the programmatic level of this analysis the specific location or types of projects and timing are unknown. Additionally, development of future sensitive receptors within 1,000 feet of industrial sources or the development of industrial sources within 1,000 feet of sensitive receptors would require a more detailed site-specific analysis of TAC impacts, as required by Mitigation Measure AQ-5. Implementation of 2024 GPU policies, AB 98 (2024), and Mitigation Measure AQ-5 would reduce localized impacts from existing and future development in the City. AB 98 requires new logistics development to adhere to standards related to setbacks, buffers, air quality mitigation, and the use of zero-emission equipment. The intent of AB 98 is to create a more equitable and sustainable approach to goods movement and reduce disproportionate burdens on vulnerable communities, promote cleaner industrial practices, and balance economic development with public health and environmental justice. In addition, per SCAQMD Rule 1401 applicable land uses would be required to obtain a permit and install best available control technology. Therefore, air toxic impacts could result in a less than significant impact.

Permitted Stationary Sources

Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the 2024 GPU would be expected to release TACs. Industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities have the potential to be substantial stationary sources that would require a permit from the SCAQMD. Emissions of TACs would be controlled by the SCAQMD through permitting and would be subject to further study and HRAs prior to the issuance of any necessary air quality permits under SCAQMD Rule 1401, which would ensure less than significant impacts.

4.3.5.4 Topic 4: Other Emissions

Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Construction

Future development implementing the 2024 GPU could result in odors from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities. Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.*

Additionally, SCAQMD Rule 1113 limits the allowable amount of VOCs from architectural coatings and solvents. These odors are a temporary short-term impact that is typical of construction projects and would disperse rapidly. Since compliance with SCAQMD Rules governing these compounds is mandatory, no construction activities or materials are proposed that would create objectionable odors adversely affecting a substantial number of people. Therefore, no significant impact would occur, and no mitigation is required.

Operational

Although offensive odors rarely cause physical harm, they can be unpleasant and generate citizen complaints. SCAQMD Rule 402 (Nuisance) places general limitations on nuisances including odors. These limitations are based on complaints and enforced by the local air pollution control officer. The SCAQMD CEQA Air Quality Handbook identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The 2024 GPU would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, implementation of the 2024 GPU would not create objectionable odors, and a less than significant impact would occur.

Therefore, approval of the 2024 GPU would not result in any significant effects relating to other odor emissions affecting substantial numbers of people.

4.3.6 Cumulative Analysis

The cumulative setting for air quality includes the City and the Basin. The Basin is designated as a nonattainment area for State standards for O_3, PM10, and PM2.5. For federal standards, the Basin is designated as a partial nonattainment area for lead and nonattainment for O_3 and PM2.5, attainment and serious maintenance for federal PM10 standards, and unclassified or attainment for all other pollutants. Cumulative growth in population and vehicle use could inhibit efforts to improve regional air quality and attain the ambient air quality standards. However, as a result of plans and regulations, air quality in the Basin has improved over time despite population growth and increased vehicle usage.

4.3.6.1 Topic 1: Air Quality Plan

Implementation of the 2024 GPU does not encourage or promote growth beyond the SCAG forecasts of regional growth. Additionally, implementation of the 2024 GPU would not conflict with the implementation of AQMP TCMs and would include policies to further reduce air pollutant emissions through the promotion of transportation and land use design factors. Therefore, implementation of the 2024 GPU would not conflict with the growth assumptions used in the development of the AQMP. Like direct air quality impacts, cumulative air quality impacts would be less than significant.

4.3.6.2 Topic 2: Criteria Pollutants

Cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation because the Basin is currently in nonattainment for O_3, PM10, and PM2.5. Regarding daily emissions and the cumulative net increase of any criteria pollutant for which the region is in nonattainment, implementation of the proposed Project would result in a cumulatively considerable increase to nonattainment of O_3, PM10, and PM2.5 standards in the Basin. Regarding the contribution from implementation of the proposed Project, the SCAQMD has recommended methods to determine the cumulative significance of new land use projects. The SCAQMD methods are based on performance standards and emission reduction targets necessary to attain NAAQSs and CAAQSs as predicted in the AQMP. Because no information on individual projects is currently available, cumulative construction and operational emissions cannot be accurately quantified. Therefore, the contribution of daily construction and operational emissions from implementation of the proposed Project is considered cumulatively significant and unavoidable.

4.3.6.3 Topic 3: Sensitive Receptors

Cumulative development has the potential to expose sensitive receptors to substantial pollutant concentrations. However, future projects implementing the 2024 GPU would be subject to regulations regarding emissions in effect at the time of entitlement application for future development projects. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Furthermore, SCAQMD's MATES V shows that carcinogenic risk from air toxics in the Basin, based on the average concentrations at the 10 monitoring sites, is approximately 40 percent lower than the monitored average in MATES IV and 84 percent lower than the average in MATES II.[23] The results of SCAQMD's ongoing research in air toxics shows that risk levels are decreasing despite development and vehicle traffic growth. This trend is expected to

[23] South Coast Air Quality Management District, 2021, MATES V Final Report, page ES-16, 2021. http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf?sfvrsn=6. Accessed November 2024.

continue with the implementation of the various statewide policies focused on reducing mobile source emissions.

Furthermore, for future development projects subject to discretionary review, compliance with Mitigation Measures AQ-1 through AQ-5 would be required. Therefore, implementation of the 2024 GPU would result in a less-than-significant cumulative impact associated with the exposure of sensitive receptors to substantial pollutant concentrations and operational health risk. However, as no information on individual projects is currently available, cumulative construction health risk cannot be accurately quantified. Therefore, the contribution of construction health risk from implementation of the 2024 GPU is considered cumulatively significant and unavoidable.

4.3.6.4 Topic 4: Other Emissions

Current projects anticipated for construction implementing the 2024 GPU involve residential, commercial and industrial developments. Odors resulting from the construction of projects implementing the 2024 GPU are not likely to affect a substantial number of people, given that construction activities are localized, and odors would cease upon completion of construction. Other odor impacts resulting from the operation of these projects are also not expected to affect a substantial amount of people, as solid waste from these projects would be stored in areas and in containers as required by the City. Therefore, construction and operation activities associated with implementation of the 2024 GPU would result in a less than significant cumulative impact related to objectionable odors affecting a substantial number of people.

4.3.7 Significance of Impacts before Mitigation

4.3.7.1 Topic 1: Air Quality Plan

As mentioned earlier, buildout of the 2024 GPU would not be consistent with the AQMP under the first criterion. Table 4.3-7 shows that the implementation of the 2024 GPU would result in a decrease in VMT because of population growth; however, VMT per service population would increase from the existing conditions. Therefore, implementation of the 2024 GPU would result in significant and unavoidable transportation impacts related to VMT. As such, implementation of the 2024 GPU would not be consistent with the AQMP under the first criterion.

4.3.7.2 Topic 2: Criteria Pollutants

Without mitigation, the construction and operations associated with future development that would be accommodated under the 2024 GPU could generate short-term (construction) and long-term (operations) emissions in exceedance of the SCAQMD's threshold criteria. Therefore, impacts would be considered potentially significant.

4.3.7.3 Topic 3: Sensitive Receptors

Localized construction and operational emissions associated with future development that would be accommodated under the 2024 GPU could exceed the SCAQMD's LST and health risk thresholds. Therefore, construction and operational impacts related to sensitive receptors would be considered potentially significant.

4.3.7.4 Topic 4: Other Emissions

With compliance with 2024 GPU policies and SCAQMD Rules 402 and 1113, impacts related to construction and operational odor impacts would be less than significant.

4.3.8 Mitigation

4.3.8.1 Topic 1: Air Quality Plan

Refer to Mitigation Measure AQ-1 through Mitigation Measure AQ-5. At a programmatic level of analysis, there are no feasible mitigation measures that would reduce air quality impacts associated with development facilitated by the 2024 GPU. Future construction and operational emissions would conflict with implementation of the AQMP. Impacts remain significant and unavoidable.

4.3.8.2 Topic 2: Criteria Pollutants

Impacts related to construction and operational emissions would be significant and the following mitigation shall be applied to future development:

AQ-1: Proposed development projects that are not exempt from CEQA shall have construction and operational air quality impacts analyzed using the latest available air emissions model, or other analytical method determined in conjunction with the SCAQMD. The results of the air quality impact analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis shall incorporate SCAQMD's Localized Significance Threshold (LST) analysis or other appropriate analyses as determined in conjunction with the SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts to the greatest extent feasible.

AQ-2: Applicants for future discretionary development projects which will generate construction-related fugitive dust emissions that exceed applicable thresholds shall include, but are not limited to, the mitigation measures recommended by SCAQMD's CEQA Air Quality Handbook, to the extent technically and logistically feasible and applicable. The measures shall be included as notes on the grading and/or demolition plans:

- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.

- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed water, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. This measure can achieve PM10 reductions of 61 percent through application of water every three hours to disturbed areas.

- Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:

    - All trucks shall be required to cover their loads as required by California Vehicle Section 23114. Covering loads and maintaining a freeboard height of 12 inches can reduce PM10 emissions by 91 percent.

    - All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering at not less than three hour intervals, application of environmentally safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. Application of water every three hours to disturbed areas can reduce PM10 emissions by 61 percent.

- Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until grass growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust. Replacement of ground cover in disturbed areas can reduce PM10 emissions by 5 percent.

- Signs shall be posted on-site limiting traffic to 15 miles per hour or less. This measure can reduce associated PM10 emissions by 57 percent.

- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties; instantaneous wind speeds exceeding 25 miles per hour), all clearing, grading, earth-moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard off-site or on-site.

The site superintendent/supervisor shall use his/her discretion in conjunction with SCAQMD when winds are excessive (above 25 miles per hour).

- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

- Personnel involved in grading operations, including contractors and subcontractors, shall be required to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

AQ-3: Applicants for future discretionary development projects that would generate construction-related emissions that exceed applicable thresholds, shall include, but are not limited to, the mitigation measures recommended by the SCAQMD (in its CEQA Air Quality Handbook or otherwise), to the extent technically and logistically feasible and applicable to the project. The types of measures shall include but are not limited to:

- Construction haul truck operators for demolition debris and import/export of soil shall use trucks that meet CARB's 2020 engine emissions standards of 0.01 grams per brake horsepower-hour of particulate matter (PM) and 0.20 grams per brake horsepower-hour of NOx emissions. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards and shall provide these records prior to grading permit issuance to the City.

- Vehicle idling shall be limited to five minutes as set forth in California Code of Regulations Title 13, Article 4.8, Section 2449. Signs shall be posted in areas where they will be seen by vehicle operators stating idling time limits. This requirement shall be included on the plans.

- Construction contractors shall utilize construction equipment that uses low polluting fuels (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that they are available and feasible to use. This requirement shall be included on the plans.

- Heavy duty diesel-fueled equipment shall use low NOx diesel fuel to the extent that it is available and feasible to use. This requirement shall be included on the plans.

- Construction contractors shall use electricity from power poles rather than temporary gasoline or diesel-powered generators, as technically and logistically feasible, or solar where available. This requirement shall be included on the plans.

- Construction contractors shall maintain construction equipment in good, properly tuned operating condition, as specified by the manufacturer, to

minimize exhaust emissions. Documentation demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications shall be shared with the City prior to grading permit issuance.

- Construction contractors shall reroute construction trucks away from congested streets or sensitive receptor areas, as technically and logistically feasible. This requirement shall be included on the plans.

4.3.8.3 Topic 3: Sensitive Receptors

Impacts related to sensitive receptors would be significant and the following mitigation shall be applied to future development.

AQ-4: Prior to issuance of a grading permit, if two or more dust-generating construction projects occur within 1,000 meters of each other, which collectively will disturb 15 acres or more and which have demolition, excavation, or grading activity scheduled to occur concurrently, a Localized Significance Threshold analysis shall be prepared. If the LST analysis determines that the established Localized Significance Thresholds for NOx, PM2.5, or PM10 would be exceeded, then modifications to construction equipment profiles, modifications to construction schedules, or additional pollution reduction measures shall be implemented to ensure that none of the Thresholds will be exceeded.

AQ-5: A project-specific Health Risk Assessment (HRA) shall be conducted for future development projects that would generate TACs within 1,000 feet of sensitive receptors, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. It is noted that AB 98 requires proposed industrial projects within 900 feet of sensitive receptors to conduct an operational HRA. The HRA shall evaluate a project per the following SCAQMD thresholds:

- Carcinogens: Maximally Exposed Individual risk equals or exceeds 10 in one million. For cumulative cancer risk, the maximum exposed individual risk equals or exceeds significance thresholds established by SCAQMD.
- Non-Carcinogens: Emit toxic contaminants that equal or exceed 1 for the Maximally Exposed Individual.

If projects are found to exceed the SCAQMD's thresholds, mitigation, including but not limited to requiring heavy-duty trucks, forklifts and/or yard trucks to be zero-emission, forbidding trucks from idling for more than three minutes, installing photo-voltaic systems, running conduit for future electric truck charging, requiring all stand-by generators to be non-diesel, designing to LEED green building certifications, and improving vegetation and tree canopy for shade, shall be incorporated to reduce impacts to below SCAQMD thresholds. The HRA shall be submitted to the City Planning Department to demonstrate that none of the Thresholds will be exceeded prior to issuance of building permits for any future discretionary residential or residential mixed-use project.

4.3.8.4 Topic 4: Other Emissions

Impacts would be less than significant. No mitigation is required.

4.3.9 Significance of Impacts after Mitigation

4.3.9.1 Topic 1: Air Quality Plan

As described above, at a programmatic level of analysis, there are no feasible mitigation measures that would reduce air quality impacts associated with development facilitated by the 2024 GPU. Future construction and operational emissions would potentially conflict with the AQMP. Impacts remain significant and unavoidable.

4.3.9.2 Topic 2: Criteria Pollutants

a. Construction

Buildout of the 2024 GPU would generate short-term construction emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the Basin. Implementation of Mitigation Measures AQ-1 through AQ-5 and compliance with the 2024 GPU goals and policies would reduce construction-related air pollutant emissions. However, individual projects implementing the 2024 GPU may exceed the SCAQMD regional significance thresholds. Therefore, construction-related regional air quality impacts of developments that would be accommodated by implementation of the 2024 GPU would remain significant and unavoidable.

b. Operation

Buildout of the 2024 GPU would generate operational emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the Basin. Mitigation Measure AQ-5, in addition to the 2024 GPU goals and policies, would reduce air pollutant emissions. The conditions and policies covering topics such as expansion of the pedestrian and bicycle networks, promotion of public and active transit, and support to increase building energy efficiency and energy conservation would also reduce criteria air pollutants within the City. However, impacts would remain significant and unavoidable due to the magnitude of the overall land use development associated with the implementation of the 2024 GPU. Impacts would remain significant and unavoidable.

4.3.9.3 Topic 3: Sensitive Receptors

Criteria Pollutant Health Effects

Contributing to the nonattainment status would also contribute to elevating health effects associated with these criteria air pollutants. Known health effects related to O_3 include

worsening of bronchitis, asthma, emphysema, and a decrease in lung function. Health effects associated with DPM include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

To determine cancer and noncancer health risk, the location, velocity of emissions, meteorology and topography of the area, and locations of receptors are equally important model parameters as the quantity of TAC emissions. The Association of Environmental Professionals (AEP) white paper titled "We Can Model Regional Emissions, But Are the Results Meaningful for CEQA?"[24] describe several of the challenges of quantifying local effects, particularly health risks, for large-scale, regional projects; these challenges are applicable to both criteria air pollutants and TACs.[25] The following summarizes major points about the infeasibility of assessing health risks of criteria air pollutant emissions and TACs associated with the implementation of a general plan.

To achieve and maintain NAAQSs and CAAQSs, the SCAQMD has established numerical emission indicators of significance for regional and localized air quality impacts for both construction and operational phases of a local plan or project. The SCAQMD has established the thresholds based on "scientific and factual data that is contained in the federal and state Clean Air Acts"[26] and recommends "that these thresholds be used by lead agencies in making a determination of significance." The numerical emission indicators are based on the recognition that the Basin is a distinct geographic area with a critical air pollution problem for which AAQSs have been promulgated to protect public health. The thresholds represent the maximum emissions from a plan or project that are expected not to cause or contribute to an exceedance of the most stringent applicable national or CAAQSs. By analyzing the plan's emissions against the thresholds, an EIR assesses whether these emissions directly contribute to any regional or local exceedances of the applicable NAAQSs and CAAQSs.

The SCAQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from implementation of a proposed project's mass emissions.[27] For criteria air pollutants, exceedance of the regional significance thresholds cannot be used to correlate a project to quantifiable health impacts unless emissions are sufficiently high to use a regional

[24] AEP, Carbon Neutrality, CEQA, and Climate Action Planning, 2025, https://www.califaep.org/climate_change.php. Accessed April 2025.

[25] Ibid.

[26] SCAQMD, *CEQA Air Quality Handbook 1993*, Page 6-2.

[27] In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 ("Friant Ranch") in the review and analysis of proposed projects under CEQA in Sacramento County https://www.airquality.org/LandUseTransportation/Documents/FriantInterimRecommendation.pdf. The SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the Friant Court's advice to explain in meaningful detail why this analysis is not yet feasible. Since this interim memorandum SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects within the SCAQMD region. See section 3 of the HEHRA prepared by Kimley-Horn.

model. The SCAQMD has not provided methodology to assess the specific correlation between mass emissions generated and their effect on health.

Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Secondary formation of PM and O_3 can occur far from sources due to wind and topography (e.g., low-level jet stream). Photochemical modeling depends on all emission sources in the entire domain (i.e., modeling grid). Low resolution and spatial averaging produce "noise" and modeling errors that usually exceed individual source contributions. Because of the complexities of predicting ground-level O_3 concentrations in relation to the NAAQSs and CAAQSs, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Current models used in CEQA air quality analyses are designed to estimate potential project construction and operation emissions for defined projects. The estimated emissions are compared to significance thresholds, which are keyed to reducing emissions to levels that will not interfere with the region's ability to attain the health-based NAAQSs and CAAQSs. This serves to protect public health in the overall region, but there is currently no CEQA methodology to determine the impact of emissions (e.g., pounds per day) on future concentration levels (e.g., parts per million or micrograms per cubic meter) in specific geographic areas. CEQA thresholds, therefore, are not specifically tied to potential health outcomes in the region.

The EIR prepared for a local general plan must provide an analysis that is understandable for decision making and public disclosure. Regional-scale modeling may provide a technical method for this type of analysis, but it does not necessarily provide a meaningful way to connect the magnitude of a project's criteria pollutant emissions to health effects without speculation. Additionally, this type of analysis is not feasible at a general plan level because the locations of emissions sources and quantities of emissions are not known. However, because cumulative development within the City would exceed the regional significance thresholds, implementation of the 2024 GPU could contribute to an increase in health effects in the Basin until the attainment standards are met in the Basin. Regional air quality would remain significant and unavoidable.

Localized Pollutant Concentrations

Mitigation Measure AQ-5 would reduce the regional construction and operation emissions associated with buildout of the 2024 GPU and therefore would also result in a reduction of localized construction- and operation-related criteria air pollutant emissions to the extent feasible. However, because existing sensitive receptors may be near construction activities and large emitters of on-site operation-related criteria air pollutant emissions generated by individual development projects accommodated by the 2024 GPU, construction and operation emissions generated by such projects have the potential to exceed SCAQMD's LSTs. Overall, impacts would remain significant and unavoidable.

Health Risk

Mitigation Measure AQ-5 would also reduce the construction and operation health risk associated with buildout of the 2024 GPU and therefore would also result in a reduction of health risks to the extent technically and logistically feasible. However, because existing sensitive receptors may be near construction activities and large emitters of on-site operation-related health risk generated by individual development projects accommodated by the implementation of the 2024 GPU, construction and operation health risk generated by such projects have the potential to exceed SCAQMD's health risk. Overall, impacts would remain significant and unavoidable for construction risk and less than significant with mitigation for operational health risk.

4.3.9.4 Topic 4: Other Emissions

Impacts would be less than significant. No mitigation is required.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Biological Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.4 Biological Resources

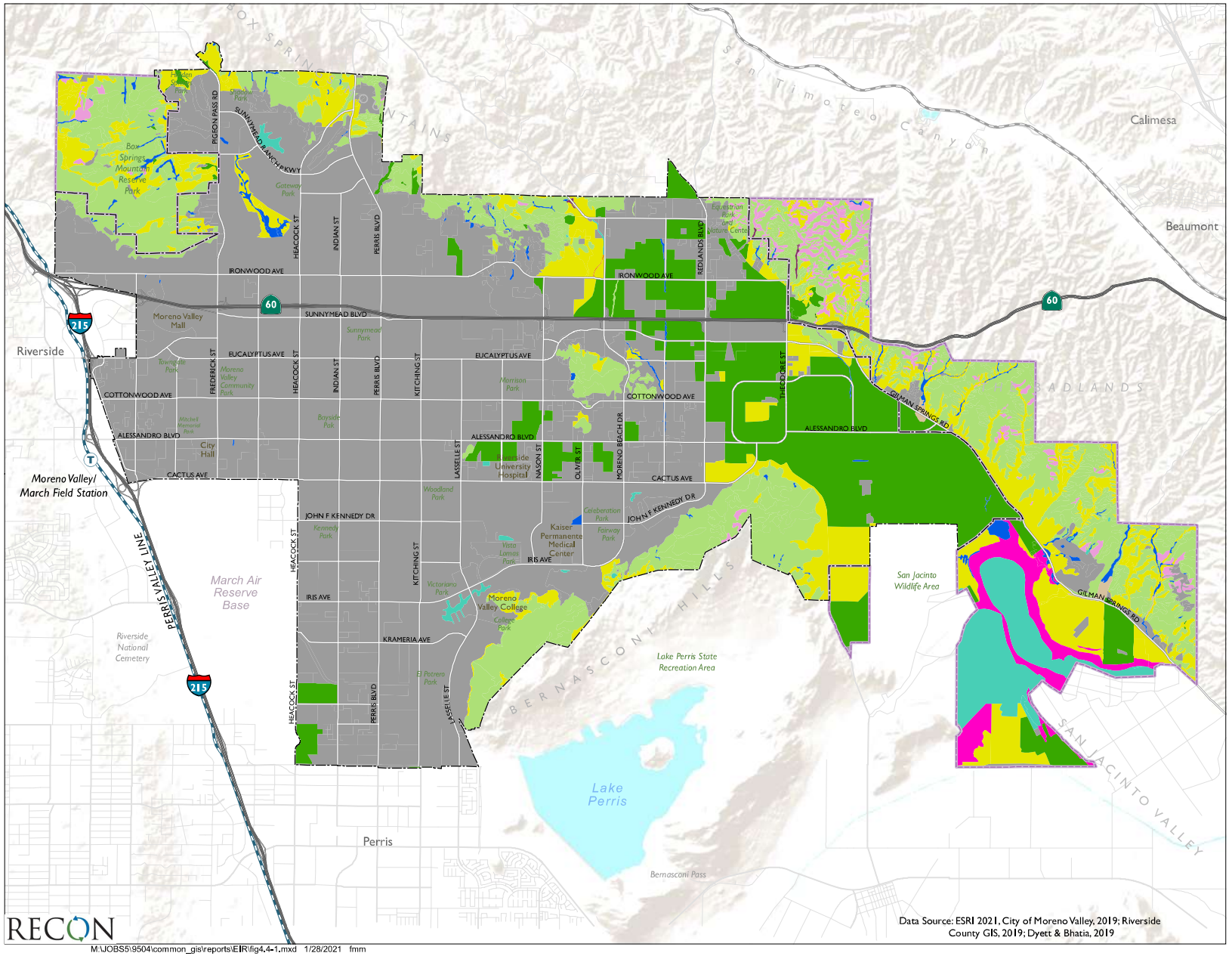
This section analyzes potentially significant impacts related to biological resources that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence (SOI), which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refers to those areas where the GPU proposes land use changes as shown on Figure 3-1. This analysis relies on secondary source information, existing biological resources databases and literature, and vegetation data available from the Western Riverside County Regional Conservation Authority.

4.4.1 Existing Conditions

Undeveloped lands within the city are typically comprised of disturbed lands and non-native grasses due to the prior history of cultivation. Small pockets of riparian vegetation occur within urban canyons and native habitats and species that once inhabited the area are largely limited to areas around the city fringes where lands are in proximity to surrounding conserved natural areas. A number of nearby natural areas occur adjacent to the city, including the San Jacinto Wildlife Area.

4.4.1.1 Vegetation Communities

Vegetation communities and land cover types within the city are shown in Figure 4.4-1. The acreage of each of these vegetation communities and land cover types is presented in Table 4.4-1. As shown in Figure 4.4-1, the majority of land within the city consists of Developed/Disturbed Land. Natural vegetation is primarily located in the eastern portion of the city, as well as along the southeastern and northern boundaries of the city. Vegetation communities/land cover types are described further below.



Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019

RECON

M:\JOBS5\9504\common_gis\reports\EIR\fig4.4-1.mxd 1/28/2021 fmm

FIGURE 4.4-1
Vegetation Communities

Table 4.4-1 Vegetation Communities and Land Cover Types within Moreno Valley	
Vegetation Communities and Land Cover Types	Sum of Acres
Agricultural Land	**5,018.35**
Cropland, Orchard - Vineyard	4,988.77
Eucalyptus	29.58
Chaparral	**44.82**
Mixed Chaparral	44.82
Coastal Sage Scrub	**3,286.27**
Coastal Scrub	3,286.27
Desert Scrub	**6.44**
Alkali Desert Scrub	6.44
Developed/Disturbed Land	**22,814.60**
Urban	22,814.60
Grassland	**1,678.02**
Annual Grassland	1,678.02
Meadows and Marshes	**2.08**
Fresh Emergent Wetland	2.08
Playas and Vernal Pools	**0.16**
Wet Meadow	0.16
Riparian Scrub, Woodland, Forest	**134.48**
Fresh Emergent Wetland	61.11
Valley Foothill Riparian	73.37
Riversidean Alluvial Fan Sage Scrub	**3.82**
Coastal Scrub	3.82
Water	**86.83**
Lacustrine	81.49
Riverine, Lacustrine	5.34
Woodland and Forests	**1.20**
Coastal Oak Woodland	1.20
Grand Total	**33,077.06**
SOURCE: Western Riverside County Regional Conservation Authority (WRCRCA) 2003.	

a. Agricultural Land

Agriculture refers to lands subject to routine and ongoing commercial operations associated with orchards and vineyards, intensively developed agriculture, such as dairies, nurseries, and chicken ranches, and extensive agriculture such as field pastures and row crops. Well-managed, modern agricultural areas used for commercial row crops, orchards, and vineyards can be devoid of wildlife. However, fields and pastures can provide habitat for native small mammals and foraging habitat for raptors such as northern harrier (*Circus cyaneus*) and red-tailed hawk (*Buteo jamaicensis*). White-faced ibis (*Plegadis chihi*), egret (*Ardea* spp.), crow (*Corvus* spp.), and killdeer (*Charadrius vociferus*) often use fallow or active fields. Agricultural areas are primarily within the eastern portion of the Planning Area with some scattered areas within the central and southern parts of the city.

b. Chaparral

Chaparral is a vegetation community typically dominated by broad-leaved sclerophyllous shrubs or small trees, and characteristically occupies protected north-facing and canyon slopes or ravines where more mesic conditions are present. Dominant shrubs in this

community are typically five to ten feet tall and may include chamise *(Adenostoma fasciculatum*), manzanita (*Arcostaphylos* spp.), toyon (*Heteromeles arbutifolia*), ceanothus (*Ceanothus* spp.), mission manzanita (*Xylococcus bicolor*), and sugar bush (*Rhus ovata*) (Holland 1986). The vegetation is usually dense, with little or no understory cover, but may include patches of bare soil. Many species in this community are adapted to repeated fires by their ability to stump sprout. Chaparral typically is found in small pockets of habitat within conserved portions of the northern and southern portions of the Planning Area, and throughout the sphere of influence (SOI) and San Jacinto Wildlife Area.

c. Coastal Sage Scrub

Coastal sage scrub is a vegetation community consisting of low-growing, aromatic, drought-deciduous soft-woody shrubs that have an average height of approximately three to four feet. This plant community is typically dominated by facultatively drought deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and black sage (*Salvia mellifera*) (Holland 1986). The community typically is found on low moisture-availability sites with steep, xeric slopes or clay rich soils that are slow to release stored water. These sites often include drier south- and west-facing slopes and occasionally north-facing slopes, where the community can act as a successional phase of chaparral development. Coastal sage scrub intergrades at higher elevations with several types of chaparrals, or in drier more inland areas with Riversidean sage scrub. Coastal sage scrub is found in the northern, central, and southeastern areas of the Planning Area, largely within the Box Springs Mountain Reserve Park, the Lake Perris State Recreational Area, the Badlands, and areas designated for Hillside Residential in the northern portion of the Planning Area.

d. Desert Scrub

Desert scrub is generally dominated by creosote bush (*Larrea tridentata*), burro bush (*Ambrosia dumosa*), brittlebush (*Encelia farinosa*), and ocotillo (*Fouqueria splendens*), which grow from 0.5 to three meters high. The shrubs within this vegetation community are generally widely spaced, usually interspersed with bare ground (Holland 1986). Desert scrub occurs within the Planning Area in small pockets of habitat along the eastern perimeter and extends into the SOI.

e. Developed/Disturbed Land

Developed/disturbed land is composed of areas consisting of business lots, roadways, and development throughout Planning Area. Non-native trees and other horticultural species used in development landscaping provide shade for the open areas and buildings. Developed/disturbed land is the dominant land cover type and found primarily throughout Moreno Valley.

f. Grassland

Grassland is a vegetation community characterized by a dense to sparse cover of annual grasses reaching to three feet high, which may include numerous native wildflowers, particularly in years of high rainfall. Grasslands contain species including, but not limited to, bromes (*Bromus* spp.), wild oat (*Avena* spp.), ryegrass (*Lolium* spp.), and fescues (*Vulpia* spp.) (Holland 1986). Typically, grasslands include at least 50 percent cover of the entire herbaceous layer attributable to annual non-native grass species, although other plant species (native and non-native) may be intermixed. These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. This vegetation community is usually found on fine-textured, usually clay soils, that range from being moist or waterlogged in the winter to being very dry during the summer and fall (Holland 1986). Grassland is found within the northern, southern, and eastern portions of Moreno Valley and throughout the SOI.

g. Meadows and Marshes

Meadows and marshes are fresh emergent wetland communities comprised of perennial emergent monocots typically forming a closed canopy. These communities consist of perennial emergent plants such as cattails (*Typha* spp.) and bulrush (*Scirpus* spp.) and can be found in the form of freshwater marsh (Holland 1986). Freshwater marsh vegetation occurs in open bodies of fresh water with little current flow, such as ponds, and to a lesser extent around seeps and springs. Freshwater marshes occur in areas of permanent inundation by freshwater without active streamflow. Approximately two acres of meadows and marshes exist north of State Route 60 (SR-60) in the northern portion of the Planning Area.

h. Playas and Vernal Pools

Vernal pools are shallow, isolated, ephemeral wetlands typically located on flat-topped mesas. The microrelief surrounding vernal pools typically consist of small mima mounds or hummocks and intergrade with alkali playa and alkali grassland habitats. These vegetation communities have a characteristic suite of plant and animal species. Plants within these habitats may be aquatic or may germinate following the drying of the pool. Vernal pool and playa sizes range from very small to large (42 acres and 6,081 acres, respectively within the Planning Area) (WRCRCA 2003). Vernal pools are considered to be basins which pond yearly and alkaline vernal playas are larger areas such as shallow lakes that may only support seasonal flooding and ponding on a less reliable basis, but which possess characteristic soils and vegetation developed in response to periodic flooding and low soil permeabilities. Playas and vernal pools occur around Mystic Lake and other bodies of water southeast of the Planning Area.

i. Riparian Scrub, Woodland, Forest

Riparian scrub, riparian woodland, and riparian forest are dense riparian communities dominated by broad-leaved, winter deciduous trees. The density of the willows often prevents a dense understory of smaller plants from growing. The representative species typically grow

in loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. Repeated flooding prevents succession to a community dominated by western sycamore (*Platanus racemose*) and cottonwoods (*Populus* sp.) (Holland 1986). A majority of the riparian scrub, woodland, and forest are located within conserved or public lands such as the Box Springs Mountain Preserve, Poorman Reservoir in the northwest of the Planning Area, and within the Badlands area within the city SOI. Isolated riparian areas exist in other limited undeveloped portions of the city.

j. Riversidean Alluvial Fan Sage Scrub

Riversidean alluvial fan sage scrub is an inland (xeric) form of coastal sage scrub that occurs in washes and on gently sloping alluvial fans. This vegetation community is composed of low-growing, aromatic, drought-deciduous, soft-woody shrubs that have an average height of approximately three to four feet (Holland 1986). These areas flood only occasionally (every five to ten years); therefore, many upland species become established in the streamside habitat. The occasional flooding and sediment reworking; however, is the driving force that maintains this vegetation type and is described as open vegetation adapted to alluvial fans and outwashes. It is dominated by scalebroom (*Lepidospartum squamatum*), which is primarily restricted to floodplain habitats. Other characteristic species for this vegetation community include California buckwheat, white sage (*Salvia apiana*), Tecate tarplant (*Deinandra floribunda*), as well as riparian species such as western sycamore and mule fat (*Baccharis salicifolia*). Less than four acres of this vegetation community is mapped along the northern perimeter of the Planning Area.

k. Water

Open water occurs in several places within the Planning Area. The largest area is mapped as the Mystic Lake, southeast of the Planning Area within the SOI.

l. Woodlands and Forests

Woodlands and forests within the Planning Area are represented as coastal oak woodland, a vegetation community defined as having one primary tree, coast live oak (*Quercus agrifolia*) (Holland 1986). Coastal oak woodlands are present in the coastal slopes of southern California and are typically found on north-facing slopes and shaded ravines in the south and more exposed sites in the north. Less than two acres of this vegetation community occurs in two small patches along the northern perimeter of the Planning Area.

4.4.1.2 Western Riverside County Multiple Species Habitat Conservation Plan

a. Sensitive Plants

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The MSHCP provides coverage (including take

authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status wildlife and plant species that receive some level of coverage under the plan. Of that total, the majority of these species have no additional survey/conservation requirements and 16 plant species are classified as "narrow endemic species" based on their limited distributions in the region. These narrow endemics are sensitive biological resources; some are also federally or state listed as threatened or endangered. The habitat that supports a narrow endemic species is also considered a sensitive biological resource. Species with potential to occur include plant and wildlife species that occur within habitats or soils conditions that are also present within the city.

A review of the species records from California Natural Diversity Database (CNDDB) reported within a one-mile buffer was conducted in order to help identify sensitive plant and wildlife species that may potentially occur within the Planning Area. Known locations of sensitive plants within the city are presented in Figure 4.4-2 and summarized in Table 4.4-2. Known sensitive plants within the city are limited to the MSHCP-covered species, southern California black walnut (*Juglans californica*) in the northeastern portion of the city and smooth tarplant (*Centromadia pungens* ssp. *laevis*), within the eastern corner. There is currently no record of any plant species with a federal or state status as endangered, threatened, or rare within the city.

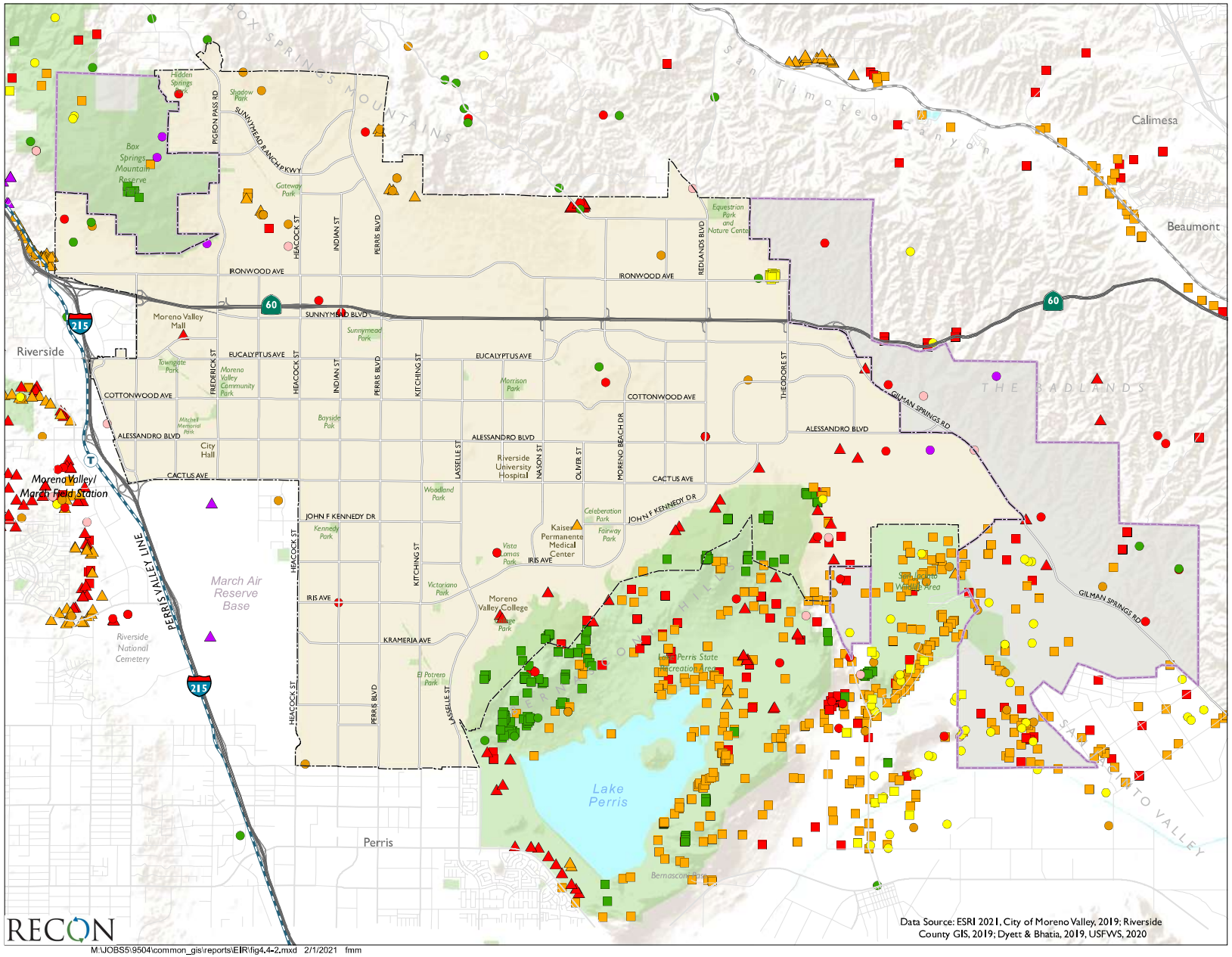


FIGURE 4.4-2
MSHCP Covered Species, CNDDB and USWFS Species

Table 4.4-2
Sensitive Plant Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Scientific Name Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
ANGIOSPERMS: MONOCOTS					
LILIACEAE LILY FAMILY					
Plummer's mariposa lily *Calochortus plummerae*	-	-	4.2	Covered	Perennial herb (bulbiferous); chaparral, coastal sage scrub, cismontane forest, lower coniferous forest, valley foothill grasslands; granitic/rocky locales; blooms May–July. Hybridizes with *C. weedi* var. *intermedius*.
THEMIDACEAE BRODIAEA FAMILY					
Thread-leaved brodiaea *Brodiaea filifolia*	Endangered	Threatened	1B.1	Covered	Cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools; often clay soils
ANGIOSPERMS: DICOTS					
ASTERACEAE SUNFLOWER FAMILY					
Smooth tarplant † *Centromadia pungens* ssp. *laevis*	-	-	1B.1	Covered	Annual herb; chenopod scrub, meadow and seeps, playas, riparian woodland, valley and foothill grassland, alkaline soils; blooms April–Sept.; elevation less than 1,600 feet. Historical locations may be extirpated.
Coulter's goldfields *Lasthenia glabrata* ssp. *Coulteri*	-	-	1B.1	Covered	Annual herb; coastal salt marsh, vernal pools, playas; blooms Feb.–June; elevation less than 4,000 feet.
chaparral ragwort; rayless ragwort; groundsel *Senecio aphanactis*	-	-	2B.2	-	Annual herb; chaparral, cismontane woodland, coastal sage scrub; blooms January–May; elevation less than 2,700 feet.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	-	-	2B.1	Covered, NE	Annual herb; marshes and swamps, riparian forest and scrub, meadows and seeps, vernal pools; blooms May–Sept.; elevation 20–1,400 feet.
BORAGINACEAE BORAGE FAMILY					
Mud nama *Nama stenocarpa*	-	-	2B.2	Covered	Annual/perennial herb; marshes and swamps, lake margins, riverbanks; blooms January–July; elevation less than 1,700 feet.

Table 4.4-2
Sensitive Plant Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Scientific Name Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
CHENOPODIACEAE GOOSEFOOT FAMILY					
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	-	Endangered	1B.1	Covered	Annual herb; layas, mesic valley foothill grasslands, vernal pools; alkaline locations; blooms April–Aug.; elevation 1,250–1,650 feet. Endemic to San Jacinto Valley.
Davidson's saltscale *Atriplex serenana var. davidsonii*	-	-	1B.2	Covered	coastal bluff scrub, coastal sage scrub, alkaline soil
BRASSICACEAE MUSTARD FAMILY					
Robinson's peppergrass *Lepidium virginicum* var. *robinsonii*	-	-	4.3	-	Annual herb; coastal sage scrub, chaparral; blooms January–July; elevation less than 2,900 feet.
JUGLANDACEAE WALNUT FAMILY					
Southern California black walnut † *Juglans californica*	-	-	4.2	Covered	Deciduous tree; chaparral, cismontane woodland, coastal sage scrub; blooms March–May; elevation less than 3,000 feet. Walnut forest rare and declining community.
NYCTAGINACEAE FOUR O'CLOCK FAMILY					
Chaparral sand verbena *Abronia villosa* var. *aurita*	-	-	1B.1	-	Annual herb; sandy floodplains in inland, arid areas of coastal sage scrub and open chaparral; blooms January–August; elevation 300–5,300 feet.

Table 4.4-2
Sensitive Plant Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Scientific Name Common Name	Sensitivity Code and Status				Habitat Preference/ Requirements
	State	Federal	CNPS Rank	MSHCP Status	
POLEMONIACEAE PHLOX FAMILY					
Navarretia fossalis spreading navarretia	-	Threatened	1B.1	Covered, NE	Annual herb; vernal pools, marshes and swamps, chenopod scrub; blooms April–June; elevation 100–4,300 feet.
POLYGONACEAE BUCKWHEAT FAMILY					
Parry's spineflower *Chorizanthe parryi* var. *parryi*	-	-	1B.1	Covered	Annual herb; sandy or rocky openings in chaparral, coastal sage scrub; blooms April–June; elevation 120–5,600 feet.

SOURCE: WRCRCA 2003.

†Present within Planning Area

MSHCP
NE = Narrow endemic
Covered = Multiple Species Habitat Conservation Program covered species

CALIFORNIA NATIVE PLANT SOCIETY (CNPS): CALIFORNIA RARE PLANT RANKS (CRPR)
1A = Species presumed extinct.
1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2A = Plants presumed extirpated in California, but more common elsewhere.
2B = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.
3 = Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4 = A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.
.1 = Species seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat).
.2 = Species fairly threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat).
.3 = Species not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known).

b. Sensitive Wildlife

Varied topography and landforms including Box Springs Mountain in the north and the Badlands east of the city provide for a diversity of wildlife species. Mammals such as mule deer can be found in the Box Springs Mountains and in the Badlands. Large carnivores, such as coyotes, bobcats, badgers, and gray fox have been found in the undeveloped portions of the city. Opossums, raccoons, skunks, cottontail rabbits, and rodent species are common to the study area. A wide variety of reptiles are found in the study area. Owls, hawks, and other birds of prey can be seen at various times throughout the year or during migration periods. Wild donkeys (*Equus africanus asinus*) have been documented north of SR-60.

Observed locations of sensitive wildlife observations within the city are based on the California Natural Diversity Database (2021) and USFWS (USFWS 2019), and presented in Figure 4.4-2. Table 4.4-3 provides both observed and potentially occurring species in the Planning Area. Locations of sensitive wildlife observations within the city are primarily located in the southeastern portion of the city adjacent to the Lake Perris State Recreation Area, as well as some areas along the eastern and northern boundaries of the city.

Table 4.4-3
Sensitive Wildlife Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999; San Diego Natural History Museum 2002)				
STREPTOCEPHALIDAE **FAIRY SHRIMP**				
Riverside fairy shrimp *Streptocephalus woottoni*	-	Endangered	Covered	Vernal pools.
APIDAE **HONEY BEES, BUMBLE BEES, AND ALLIES**				
Crotch's bumble bee *Bombus crotchii*	Candidate Endangered	-	-	Coastal areas, open grasslands, shrub habitats.
AMPHIBIANS (Nomenclature from Crother et al. 2017)				
PELOBATIDAE **SPADEFOOT TOADS**				
Western spadefoot † *Spea hammondii*	Species of Concern	-	Covered	Vernal pools, floodplains, and alkali flats within areas of open vegetation.
REPTILES (Nomenclature from Crother 2017)				
IGUANIDAE **IGUANID LIZARDS**				
Coast horned lizard † *Phrynosoma blainvillii* [= *P. coronatum* coastal population]	Species of Concern	-	Covered	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.
TEIIDAE **WHIPTAIL LIZARDS**				
Belding's orange-throated whiptail † *Aspidoscelis hyperythra beldingi*	Watch List	-	Covered	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.
ANNIELLIDAE **LEGLESS LIZARDS**				
San Diegan legless lizard *Anniella stebbensi* sp. [=pulchra pulchra]	Species of Concern	-	-	Herbaceous layers with loose soil in coastal scrub, chaparral, and open riparian. Prefers dunes and sandy washes near moist soil.
COLUBRIDAE **COLUBRID SNAKES**				
California glossy snake *Arizona elegans occidentalis*	Species of Concern	-	-	Rocky areas in wet locales, such as swamps, damp forests, or riparian woodlands.
CROTALIDAE **RATTLESNAKES**				
Red diamond rattlesnake † *Crotalus ruber*	Species of Concern	-	Covered	Desert scrub and riparian, coastal sage scrub, open chaparral, grassland, and agricultural fields.

Table 4.4-3
Sensitive Wildlife Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
PHRYNOSOMATIDAE SPINY LIZARDS				
Granite spiny lizard † *Sceloporus orcutti*	-	-	Covered	Wide variety of habitats but is restricted to granite outcrops and boulder fields.
XANTUSIIDAE NIGHT LIZARDS				
Granite night lizard † *Xantusia henshawi*	-	-	Covered	Flaking granite, rock outcrops, and boulder fields, most commonly with chaparral, sage scrub, mixed conifer forest, and oak woodland.
BIRDS (Nomenclature from Chesser et al. 2019 and CDFW 2021)				
THRESKIORNITHIDAE IBISES				
White-faced ibis (rookery site) *Plegadis chihi*	Watch List	-	Covered	Freshwater ponds, irrigated fields, brackish lagoons. Migrant and winter visitor, rare in summer. Very localized breeding.
CATHARTIDAE NEW WORLD VULTURES				
Turkey vulture (breeding) † *Cathartes aura*	-	-	Covered	Nest and roost sites include cliffs, caves, ledges, rock outcrops; and foraging habitats include deciduous forest, woodlands, and scrublands; often seen over farmlands.
ACCIPITRIDAE HAWKS, KITES, & EAGLES				
Cooper's hawk (nesting) † *Accipiter cooperii*	Watch List	-	Covered	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas.
Ferruginous hawk (wintering) † *Buteo regalis*	Watch List	-	Covered	Require large foraging areas. Grasslands, agricultural fields. Uncommon winter resident.
CUCULIDAE CUCKOOS & ROADRUNNERS				
Western yellow-billed cuckoo † *Coccyzus americanus occidentalis*	Endangered	Threatened	Covered	Riparian woodlands. Summer resident. Very localized breeding.
STRIGIDAE TYPICAL OWLS				
Western burrowing owl (burrow sites) *Athene cunicularia hypugaea*	Species of Concern	-	Covered	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.
PICIDAE WOODPECKERS & SAPSUCKERS				
Downy woodpecker *Picoides pubescens*	-	-	Covered	Riparian scrub, woodland, and forest, and oak woodland and forest habitat

Table 4.4-3
Sensitive Wildlife Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
TYRANNIDAE TYRANT FLYCATCHERS				
Southwestern willow flycatcher *Empidonax traillii extimus*	Endangered	Endangered	Covered	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.
LANIIDAE SHRIKES				
Loggerhead shrike *Lanius ludovicianus*	Species of Concern	-	Covered	Open foraging areas near scattered bushes and low trees.
VIREONIDAE VIREOS				
Least Bell's vireo (nesting) † *Vireo bellii pusillus*	Endangered	Endangered	Covered	Willow riparian woodlands. Summer resident.
HIRUNDINIDAE SWALLOWS				
Tree swallow † *Tachycineta bicolor*	-	-	Covered	Riparian scrub, woodland and forest, and oak woodland and forest within the vicinity of water.
SYLVIIDAE GNATCATCHERS				
Coastal California gnatcatcher † *Polioptila californica californica*	Species of Concern	Threatened	Covered	Coastal sage scrub, maritime succulent scrub. Resident.
PARULIDAE WOOD WARBLERS				
Yellow warbler (nesting) *Setophaga* [=*Dendroica*] *petechia*	Species of Concern	-	Covered	Breeding restricted to riparian woodland. Spring and fall migrant, localized summer resident, rare winter visitor.
Yellow-breasted chat (nesting) † *Icteria virens auricollis*	Species of Concern	-	Covered	Dense riparian woodland. Localized summer resident.
PASSERELLIDAE NEW WORLD PASSERINES				
Southern California rufous-crowned sparrow † *Aimophila ruficeps canescens*	Watch List	-	Covered	Coastal sage scrub, chaparral, grassland. Resident.
Bell's sage sparrow † *Artemisiospiza* [=*Amphispiza*] *belli belli*	Watch List	-	Covered	Chaparral, coastal sage scrub. Localized resident.
Wilson's warbler † *Cardellina pusilla*	-	-	Covered	Montane meadows, shrub habitats, and deciduous woodland habitats.
MacGillivray's warbler *Geothlypis tolmiei*	-	-	Covered	Montane coniferous forest and woodland, riparian scrub, woodland, and forest habitat, oak woodland and forest, chaparral, coastal sage scrub, desert scrub, and Riversidean alluvial fan sage scrub.

Table 4.4-3
Sensitive Wildlife Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
Lincoln's sparrow † *Melospiza lincolnii*	-	-	Covered	Montane meadow and wet montane meadow and the edges of montane riparian or riparian scrub.
ICTERIDAE				
Tricolored blackbird (nesting) † *Agelaius tricolor*	Threatened, Species of Concern	-	Covered	Freshwater marshes, agricultural areas, lakeshores, parks. Localized resident.
MAMMALS (Nomenclature from Baker et al. 2003 and Hall 1981)				
VESPERTILIONIDAE VESPER BATS				
Western red bat *Lasiurus blossevillii*	Species of Concern	-	-	Prefers riparian areas dominated by cottonwoods, oaks, sycamores, and walnuts.
Western yellow bat † *Lasiurus xanthinus*	Species of Concern	-	-	Found in valley foothill riparian, desert riparian, desert washes, and palm oasis habitats.
MOLOSSIDAE FREE-TAILED BATS				
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Species of Concern	-	-	Observed in a variety of habitats, including desert scrub and pine-oak forests.
LEPORIDAE RABBITS & HARES				
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Species of Concern	-	Covered	Open areas of scrub, grasslands, agricultural fields.
Brush rabbit † *Sylvilagus bachmani*	-	-	Covered	Chaparral, Diegan coastal sage scrub, Riversidean sage scrub, and alluvial fan sage scrub, riparian and woodland habitats, coniferous forest, and agricultural areas (grove/orchard, and field crops).
HETEROMYIDAE POCKET MICE & KANGAROO RATS				
Northwestern San Diego pocket mouse † *Chaetodipus fallax fallax*	Species of Concern	-	Covered	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.
Los Angeles little pocket mouse † *Perognathus longimembris brevinasus*	Species of Concern	-	Covered	Desert riparian, scrub, wash. Coastal scrub and sagebrush. Localized.
San Bernardino kangaroo rat † *Dipodomys merriami parvus*	Candidate Endangered	Endangered	Covered	Open coastal sage scrub, Riversidean alluvian fan sage scrub, or grasslands; fine, alluvial sands.

Table 4.4-3
Sensitive Wildlife Species
Observed† or Potentially Occurring within the Moreno Valley Planning Area

Species' Common Name/ Scientific Name	State Status	Federal Status	MSHCP Status	Habitat Preference/ Requirements
Stephens' kangaroo rat † *Dipodomys stephensi*	Threatened	Endangered	Covered	Grassland and open areas with less than 50% cover. Prefers areas dominated by filaree (*Erodium* spp.) and annual brome grasses (*Bromus* spp). Well-drained and friable (easy to dig) soils.
MURIDAE **OLD WORLD MICE & RATS (I)**				
Southern grasshopper mouse *Onychomys torridus ramona*	Species of Concern	-	-	Alkali desert scrub & desert scrub preferred. Can also occur in succulent shrub, wash, & riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. Low to moderate shrub cover preferred.
CANIDAE **CANIDS**				
Coyote † *Canis latrans*	-	-	Covered	Primary habitats include grasslands, short-grass prairies, semiarid sagebrush, and broken forests. Also found in urban settings.

SOURCE: WRCRCA 2003.

†Observed within Moreno Valley based on CDFW 2021 or USFWS 2019.
MSHCP
Covered = Multiple Species Habitat Conservation Program covered species.

c. Public/Quasi-Public Lands

As a part of the MSHCP Conservation Area lands, approximately 347,000 acres of lands known as Public/Quasi-Public Lands were established and occur within public/private ownership which contribute towards the conservation of Covered Species (including lands contained in existing reserves). Public/Quasi-Public lands within and adjacent to the Planning Area are shown on Figure 4.4-3.

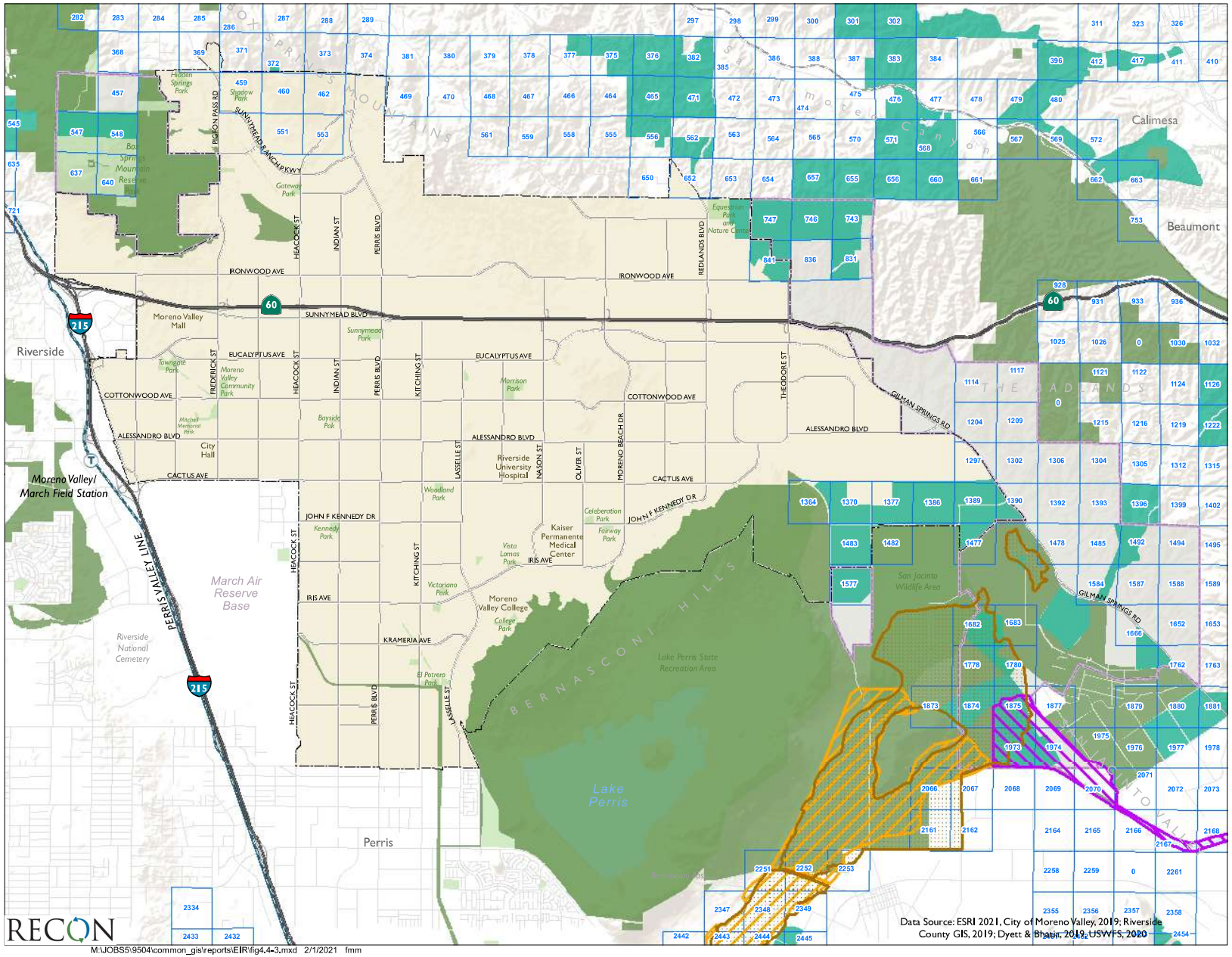


FIGURE 4.4-3
MSHCP Covered Lands and Criteria Cells

d. Criteria Cells and MHSCP Conserved Lands

The MSHCP designates Criteria Area boundaries, which contain cells (termed 'Criteria Cells') approximately 160 acres in size that have been identified as having conservation potential. The establishment of Criteria Area boundaries is intended to facilitate the process by which jurisdictions will evaluate property that may be needed for inclusion in the MSHCP Conservation Area. The Criteria Area is an analytical tool within which property will be evaluated using MSHCP Conservation Criteria to determine what properties are needed for the MSHCP Conservation Area and does not impose land use restrictions. Public and private development within the Criteria Area that is determined to be consistent with the MSHCP Conservation Criteria is considered a Covered Activity, and land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the permits issued by jurisdictions pursuant to the MSHCP.

Figure 4.4-3 shows the locations of existing MSHCP Criteria Cells and Conserved Lands within the city. Criteria Cells are limited to the edges of the city boundaries including north of Sunnymead Ranch Parkway in the northwest; northerly of and east of Ironwood Avenue in the northeast; and in the area bordering San Jacinto Wildlife Area in the southeast. MSHCP Conserved Lands are located within existing Criteria Cells in the northeast and southeast portions of the city.

4.4.1.3 Stephens' Kangaroo Rat Habitat Conservation Plan and Stephen's Kangaroo Rat Core Reserves

As part of the USFWS approved long-term Stephens' kangaroo rat (Habitat Conservation Plan (HCP), a core reserve area consisting of undeveloped lands in the Lake Perris State Recreation Area and San Jacinto Wildlife Area, and previously farmed lands to the east was established for the purpose of setting aside habitat for the Stephens' kangaroo rat. These areas include suitable and occupied habitat for this species. The 10,932-acre San Jacinto-Lake Perris core reserve is located southeast of the city and north of the Ramona Expressway and is the third largest of all the core reserves (Figure 4.4-4). A small portion of this core reserve area occurs on the south end of the Planning Area.

4.4.1.4 Wildlife Movement and Corridors

Wildlife movement corridors and habitat linkages are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Corridors are generally local pathways connecting short distances usually covering one or two main types of vegetation communities. Linkages are landscape-level connections between very large core areas and generally span several thousand feet and cover multiple habitat types. The habitat connectivity provided by corridors and linkages is important in providing access to mates, food, and water, allowing the dispersal of individuals away from high population density areas and facilitating the exchange of genetic traits between populations (Beier and Loe 1992).

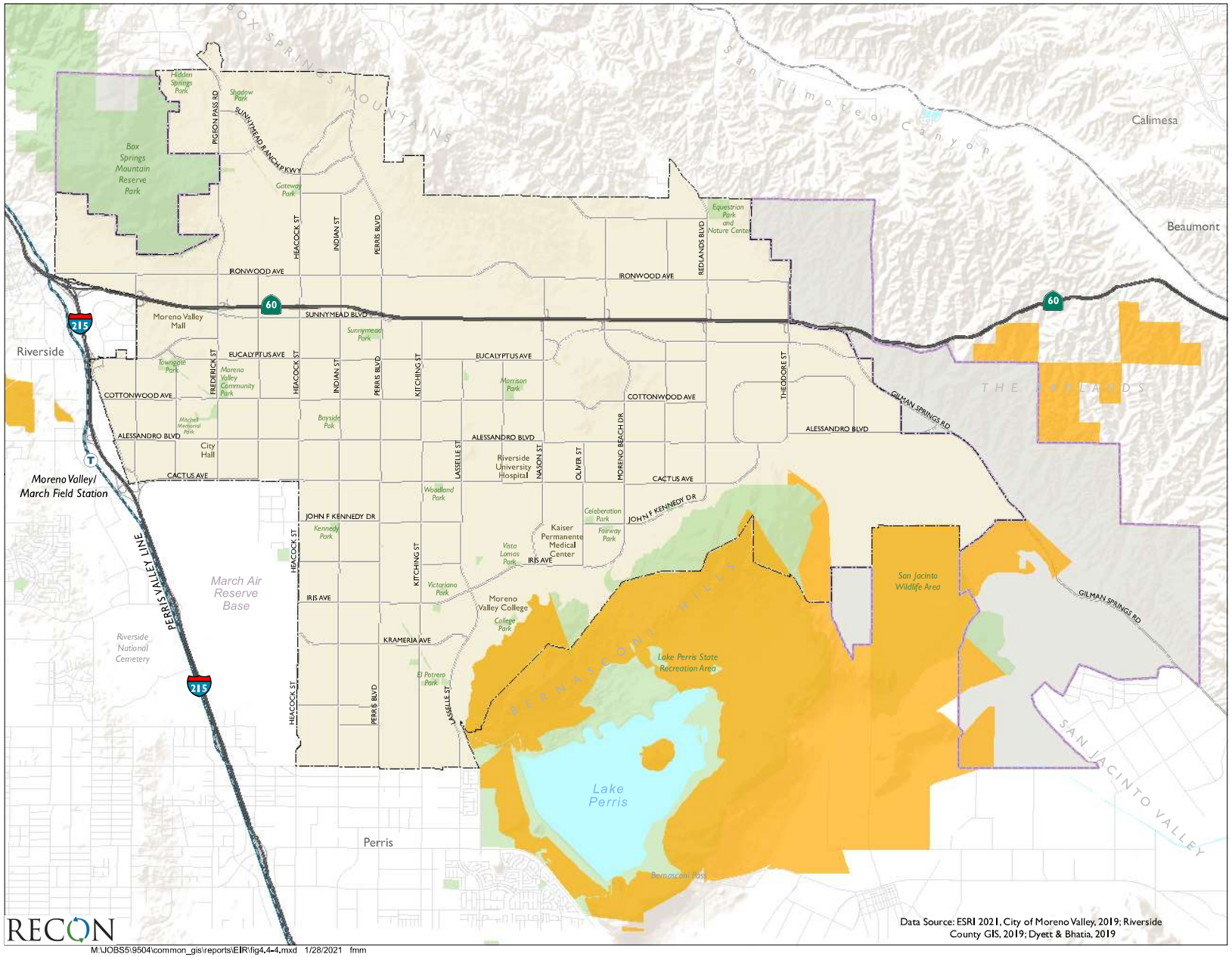


FIGURE 4.4-4
Stephens' Kangaroo Rat Core Reserve Area

A majority of the Planning Area is already developed; however, some native habitats occur along the northern and southeastern borders as part of the Box Springs Mountains, the Badlands, and Bernasconi Hills. Wildlife movement within and between these designated core biological resource areas are currently restricted to the south, east, and north, respectively, by the existing development within the Planning Area. Within the native habitats mapped in the city, wildlife movement can occur in these localized areas, but eventually are restricted by existing development.

4.4.1.5 Designated Critical Habitats

The USFWS has designated revised critical habitat for San Bernardino kangaroo rat, San Jacinto Valley crownscale, and spreading navarretia outside, but adjacent to the Planning Area (USWFS 2008, 2013, and 2010, respectively). Critical habitats for these species occur within one mile of the city (see Figure 4.4-3). To-date, only one species, San Bernardino kangaroo rat, has been observed within the Planning Area limits. However, this observation is from 1913 and not expected to persist in this location as it has been completely developed. Both San Jacinto Valley crownscale and spreading navarretia have not been detected within the Planning Area.

4.4.1.6 Conserved Lands

The San Jacinto Wildlife Area, located at the southeast corner of the Planning Area is a 12,000-acre wildlife preserve noted for its diversity of migratory birds (Figure 4.4-5). Other conserved lands surrounding the city include the Lake Perris Recreation Area located adjacent to the southern city limits, and the Box Springs Mountain Reserve Park located northwest of the city limits.

4.4.2 Applicable Regulatory Requirements

4.4.2.1 Federal Regulations

a. Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to provide a means for conserving endangered and threatened species in order to prevent species extinction, extirpation, etc. The FESA has four major components: the Section 4 provisions for listing species and designating critical habitat; the Section 7 requirement for federal agencies to consult with the USFWS to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; the Section 9 prohibition against "taking" listed species; and the Section 10 provisions for permitting the incidental take of listed species. The term "take" is defined by the FESA to include the concept of "harm," which agency regulations define to include death or injury that results from modification or destruction of a species habitat (50 Code of Federal Regulations [CFR] 17.3).

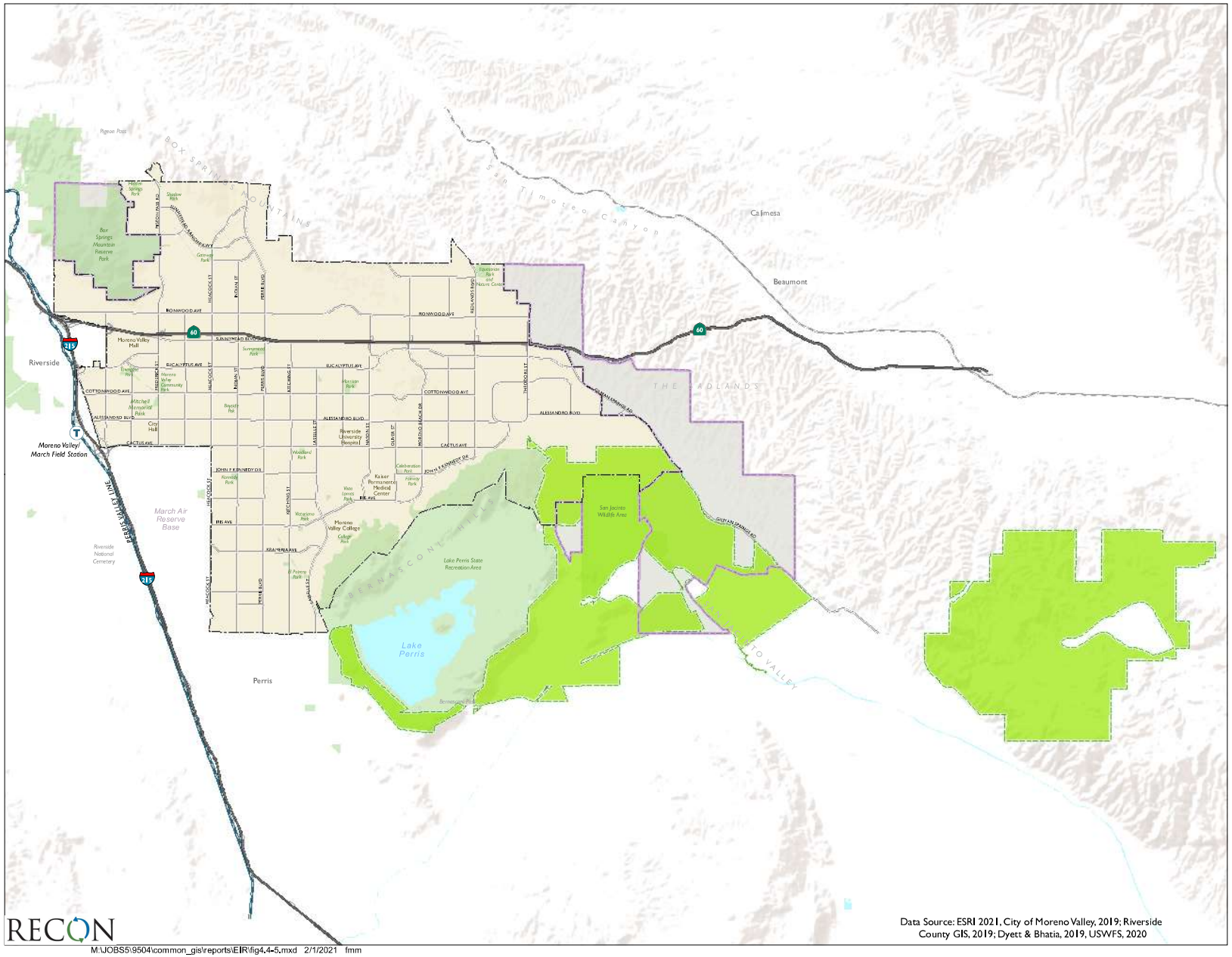


FIGURE 4.4-5
San Jacinto Wildlife Area

Section 7 of the FESA

Section 7 of the FESA provides that each federal agency undertaking a federal action which could significantly affect FESA species shall consult with the Secretary of Interior or Commerce, that any actions authorized, funded, or carried out by the agency are "not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of lands determined to be critical habitat" (16 United States Code [USC] Section 1536(a)(2)). The term "agency action" is broadly defined in a manner that includes nearly all actions taken by federal agencies such as permitting or carrying out a project, as well as actions by private parties which require federal agency permits or approval (50 CFR Section 402.02). The consultation requirement of Section 7 is triggered upon a determination that a proposed action "may affect" a listed species or designated Critical Habitat (50 CFR Section 402.14(a)). If the proposed action is a "major construction" activity, the federal agency proposing the action must prepare a biological assessment to include with its request for the initiation of Section 7 consultation.

Included in the USFWS Biological Opinion is an Incidental Take Statement (ITS) that authorizes a specified level of take anticipated to result from the proposed action. The ITS contains "reasonable and prudent measures" that are designed to minimize the level of incidental take, adverse modification, or destruction to critical habitat, and that must be implemented as a condition of the take authorization (50 CFR Section 402.14(i)(5)).

The issuance of a Biological Opinion concludes formal consultation, but consultation can be reinitiated if the amount or extent of incidental take authorized is exceeded, the action changes, new information reveals effects of the action not previously considered, or a new species is listed or Critical Habitat is designated (50 CFR Section 402.16). Once the Biological Opinion is issued, the project applicant must implement the terms and conditions, and conservation measures, mandated by the USFWS. Monitoring and reporting is required to be coordinated with the USFWS during the implementation of conservation measures.

Section 9 of the FESA

Section 9 of the FESA prohibits any person from "taking" an endangered animal species. Regulations promulgated by USFWS and National Oceanic and Atmospheric Administration make the "take" prohibition generally applicable to threatened animal species as well (50 CFR 17.71). Section 9 thus prohibits the clearing of habitat that results in death or injury to members of a protected species.

An authorization or permit to incidentally take listed species can be obtained either through the Section 7 consultation process or through the Section 10 incidental take permit process. In the context of Section 7, incidental take is authorized through an ITS that is issued consistent with a Biological Opinion. Measures required to conform to the ITS are contained in "reasonable and prudent measures," as are the terms and conditions necessary to implement those measures. In the context of Section 10, incidental take is authorized through an ITP issued pursuant to Section 10(a)(1)(B). Measures contained in the ITP reflect the measures set out in a habitat conservation plan developed by the applicant in conjunction with the USFWS.

Section 10 of the FESA

Under Section 10(a)(1)(B) of the FESA, the USFWS may permit the incidental take of listed species that may occur as a result of an otherwise lawful activity. To obtain a Section 10(a)(1)(B) permit, an applicant must prepare a habitat conservation plan that meets the following five criteria: (1) the taking will be incidental to an otherwise lawful activity; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the plan will be provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (5) other measures, if any, that the USFWS requires as being necessary or appropriate for purposes of the plan will be met (16 USC Section 1539(a)(2)(A)).

b. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The regulatory definition of "migratory bird" is broad, and includes any mutation or hybrid of a listed species and any part, egg, or nest of such birds (50 CFR 10.12). The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation. The take, possession, import, export, transport, sale, purchase, barter, or offering of these activities is prohibited, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

c. United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters and wetlands in the Planning Area. In this regard, the USACE acts under two statutory authorities, the Rivers and Harbors Act (33 USC, Sections 9 and 10), which governs specified activities in navigable waters, and the Clean Water Act (CWA; Section 404), which governs specified activities in waters of the U.S., including wetlands and special aquatic sites. Wetlands and non-wetland waters (e.g., rivers, streams, and natural ponds) are a subset of waters of the U.S. and receive protection under Section 404 of the CWA. The USACE has primary federal responsibility for administering regulations that concern waters and wetlands in the project area under statutory authority of the CWA (Section 404). In addition, the regulations and policies of various federal agencies mandate that the filling of wetlands be avoided to the maximum extent feasible. The USACE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the U.S.

4.4.2.2 State Regulations

a. California Endangered Species Act

Similar to the FESA, the California Endangered Species Act (CESA) of 1970 provides protection to species considered threatened or endangered by the State of California (California Fish and Game Code, Section 2050 et seq.). The CESA recognizes the importance of threatened and endangered fish, wildlife, and plant species and their habitats, and prohibits the taking of any endangered, threatened, or rare plant and/or animal species unless specifically permitted for education or management purposes.

The CESA declares that deserving plant or animal species would be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA establishes that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats. Under state law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

CESA authorizes that "[p]rivate entities may take plant or wildlife species listed as endangered or threatened under FESA and CESA, pursuant to a federal incidental take permit issued in accordance with Section 10 of the FESA, if the CDFW certifies that the incidental take statement or incidental take permit is consistent with CESA (Fish and Game Code Section 2080.1(a)).

Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 California Code of Regulations (CCR), Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of "fully protected" species and "specified birds." If a project is planned in an area where a fully protected species or specified bird occurs, an applicant must design the project to avoid all take; the CDFW cannot provide take authorization under CESA. On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA; however, CESA authorizes that "Private entities may take plant species listed as endangered or threatened under the FESA and CESA through a federal ITP issued pursuant to Section 10 of the FESA, if the CDFW certifies that the ITS or ITP is consistent with CESA." In addition, CEQA requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

b. CEQA: Treatment of Listed Plant and Animal Species

FESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the state list). Section 15380 of the CEQA Guidelines independently defines "endangered" species of plants or animals as those whose survival and reproduction in the

wild are in immediate jeopardy and "rare" species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally would have a significant effect on the environment if it would substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

c. California Fish and Game Code - Sections 1601 to 1603

Streambeds and other drainages that occur within the Planning Area are subject to regulation by the CDFW. The CDFW considers most drainages to be "streambeds" unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports, or has supported, riparian vegetation. CDFW jurisdiction typically extends to the edge of the blue-line streams, and therefore, usually encompasses a larger area than USACE jurisdiction.

d. California Fish and Game Code - Sections 3503 and 3503.5

Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the California Fish and Game Code prohibits take, possession, or destruction of any birds in the orders Falconiformes (raptors) or Strigiformes (owls) or of their nests and eggs.

e. Regional Water Quality Control Board

The federal Water Pollution Control Act (also known as the Clean Water Act) (33 USC 1251 et seq.), as amended by the Water Quality Act of 1987 (PL 1000-4), is the major federal legislation governing water quality. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the U.S are regulated under Section 404. Waters of the U.S. include (1) all navigable waters (including all waters subject to the ebb and flow of tides); (2) all interstate waters and wetlands; (3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; (4) all impoundments of waters mentioned above; (5) all tributaries to waters mentioned above; (6) the territorial seas; and (7) all wetlands adjacent to waters mentioned above.

f. California Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning (NCCP) Act is designed to conserve habitat-based natural communities at the ecosystem scale while accommodating compatible land uses in coordination with CESA. CDFW is the principal state agency implementing the NCCP program. The act established a process to allow for comprehensive, long-term, regional, multi-species, and habitat-based planning in a manner that satisfies the requirements of the

state and FESAs (through a companion regional habitat conservation plan). The NCCP program has provided the framework for innovative efforts by the state, local governments, and private interests, to plan for the protection of regional biodiversity and the ecosystems upon which they depend. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed.

4.4.2.3 Local Regulations

a. Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. It is one of several large multi-jurisdictional habitat-planning efforts in southern California with the overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. The MSHCP allows the County of Riverside and its cities to better control local land use decisions and maintain a strong economic climate in the region while addressing the requirements of the FESA (WRCRCA 2003). The MSHCP area encompasses 1.26 million acres (1,966 square miles), including all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, Menifee, Eastvale, Jurupa Valley, and San Jacinto.

The MSHCP serves as a habitat conservation plan pursuant to Section 10(a)(1)(B) of the FESA, as amended, as well as a Natural Community Conservation Plan under the NCCP Act of 2001. The MSHCP is used to allow the participating jurisdictions to authorize "take" of plant and wildlife species identified within the plan area. The MSHCP designates Criteria Area boundaries, which contain Criteria Cells approximately 160 acres in size that have been identified as having conservation potential. The establishment of Criteria Area boundaries is intended to facilitate the process by which jurisdictions will evaluate property that may be needed for inclusion in the MSHCP Conservation Area. The Criteria Area is an analytical tool within which property will be evaluated using MSHCP Conservation Criteria to determine what properties are needed for the MSHCP Conservation Area, and does not impose land use restrictions. Public and private development within the Criteria Area that is determined to be consistent with the MSHCP Conservation Criteria is considered a Covered Activity, and land not needed for the MSHCP Conservation Area shall receive Take Authorization for Covered Species Adequately Conserved through the permits issued by jurisdictions pursuant to the MSHCP.

Figure 4.4-3 shows the locations of existing MSHCP Criteria Cells and Conserved Lands within the city. The Planning Area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. Criteria Cells are limited to the edges of the city boundaries including north of Sunnymead Ranch Parkway in the northwest; northerly of and east of Ironwood Avenue in the northeast; and in the area bordering San Jacinto Wildlife Area in the southeast. MSHCP Conserved Lands are located within existing Criteria Cells in the northeast and southeast portions of the city.

b. Stephens' Kangaroo Rat Habitat Conservation Plan

In 1996, USFWS approved a long-term HCP for Stephens' kangaroo rat and granted an incidental take permit for Riverside County, covering an estimated 30,000 acres of occupied habitat, including land within Moreno Valley (Riverside County Habitat Conservation Agency [RCHCA] 1996) (see Figure 4.4-4). The HCP authorizes the incidental take of half of the occupied habitat remaining in the HCP area while using development fees to implement the plan, purchase private property, and create a reserve system. The Stephens' Kangaroo Rat HCP and corresponding permits are in effect for areas covered by the MSHCP; however, the Stephens' Kangaroo Rat HCP and the MSHCP remain separate. The Stephens' Kangaroo Rat Fee Area is subject to mandatory conservation measures as outlined in the Stephens' Kangaroo Rat HCP (RCHCA 1996) and as subsequently modified.

c. Municipal Code

Western Riverside County Multiple Species Habitat Conservation Plan Fee Program and Stephens' Kangaroo Rat Habitat Conservation Plan

Title 3, Chapter 3.48 of the Municipal Code establishes a local development mitigation fee to further implementation of the MSHCP. These fees are intended to assist in the maintenance of biological diversity and the natural ecosystem and protect vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered, or key sensitive populations of plant and wildlife species. These fees also serve to provide a streamlined regulatory process from which development can proceed in an orderly process, and protect the existing character of the city and the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.

Threatened and Endangered Species

Title 8, Chapter 8.60 of the Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP, including the collection of an impact and mitigation fee to provide funds to implement the terms of the Stephens' Kangaroo Rat HCP.

Heritage Trees

Title 9, Chapter 9.17.030 , Section G of the Municipal Code provides a definition of Heritage Trees and identifies and includes policies for preservation, as well as the measures by which trees can be removed.

4.4.3 Methodologies for Determining Impacts

Preparation of this section began with an extensive review of the most current biological literature and gathering of geographical information systems (GIS) data available for the Planning Area.

The sensitive flora and fauna species that are known to occur within the Planning Area are based on information obtained from the literature review. General flora and fauna species were determined based on the identified vegetation communities and the species that typically occur in these habitats. An in-house search of MSHCP, USFWS, and CNDDB databases was also performed to identify historical occurrences of sensitive plants and wildlife species within the Planning Area. The proposed Concept Areas were then overlain on the existing biological resources GIS data to determine the approximate maximum acreage of impact to vegetation communities and proximity to known sensitive species locations within the Planning Area. This was followed by an evaluation of how the proposed GPU goals would serve to either preserve or impact biological resources within the Planning Area.

4.4.4 Basis for Determining Significance

Thresholds used to evaluate impacts to biological resources are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) 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 CDFW or USFWS;

2) 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 CDFW or USFWS;

3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

4) 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;

5) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or

6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Impact Analysis

4.4.5.1 Topic 1: Sensitive Species

Would the project result in a substantial adverse impact, either directly or through habitat modifications, to any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFW or USFWS?

Buildout of the project would have the potential to directly or indirectly impact candidate, sensitive, or special status species. Potential direct impacts would include removal of habitat through future development and redevelopment projects that support sensitive species.

The project has been designed to minimize impacts to sensitive species by primarily focusing on future development and redevelopment within the proposed Concept Areas. These areas consist of clusters of vacant and underutilized land within the city limit that would avoid the majority of sensitive habitat that is located within the eastern and southeastern portion of the Planning Area. Focusing development and redevelopment within these areas that consist primarily of developed and/or disturbed land would minimize adverse impacts to sensitive species. Table 4.4-4 shows the maximum approximate acreage of impact that would occur through development of the Concept Areas.

Table 4.4-4
Acreage of Maximum Impacts to Vegetation Communities within Concept Areas

Category	Planning Area
Agricultural Land	1,359.1
Coastal Sage Scrub	93.1
Riparian Scrub, Woodland, Forest	6.3
Grassland	39.3
Water	8.3
Developed/Disturbed Land	1,761.2
TOTAL	3,267.4

Figure 4.4.6 presents the locations of the proposed Concept Areas in relation to mapped vegetation communities within the Planning Area as these areas represent the areas of land use change under the GPU. As shown in Figure 4.4-6, the largest amount of existing habitat that would be impacted within the Concept Areas includes agricultural land north of SR-60, as well as vacant parcels within the proposed Downtown Center. Impacts to developed/disturbed land would not be considered significant. Additionally, impacts to coastal sage scrub, agricultural land, and grassland would not be considered significant because they are located outside of the MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. However, future development within Riparian Scrub, Woodland, and Forest within the Concept Areas would have the potential to support sensitive species, and impacts would be considered significant.

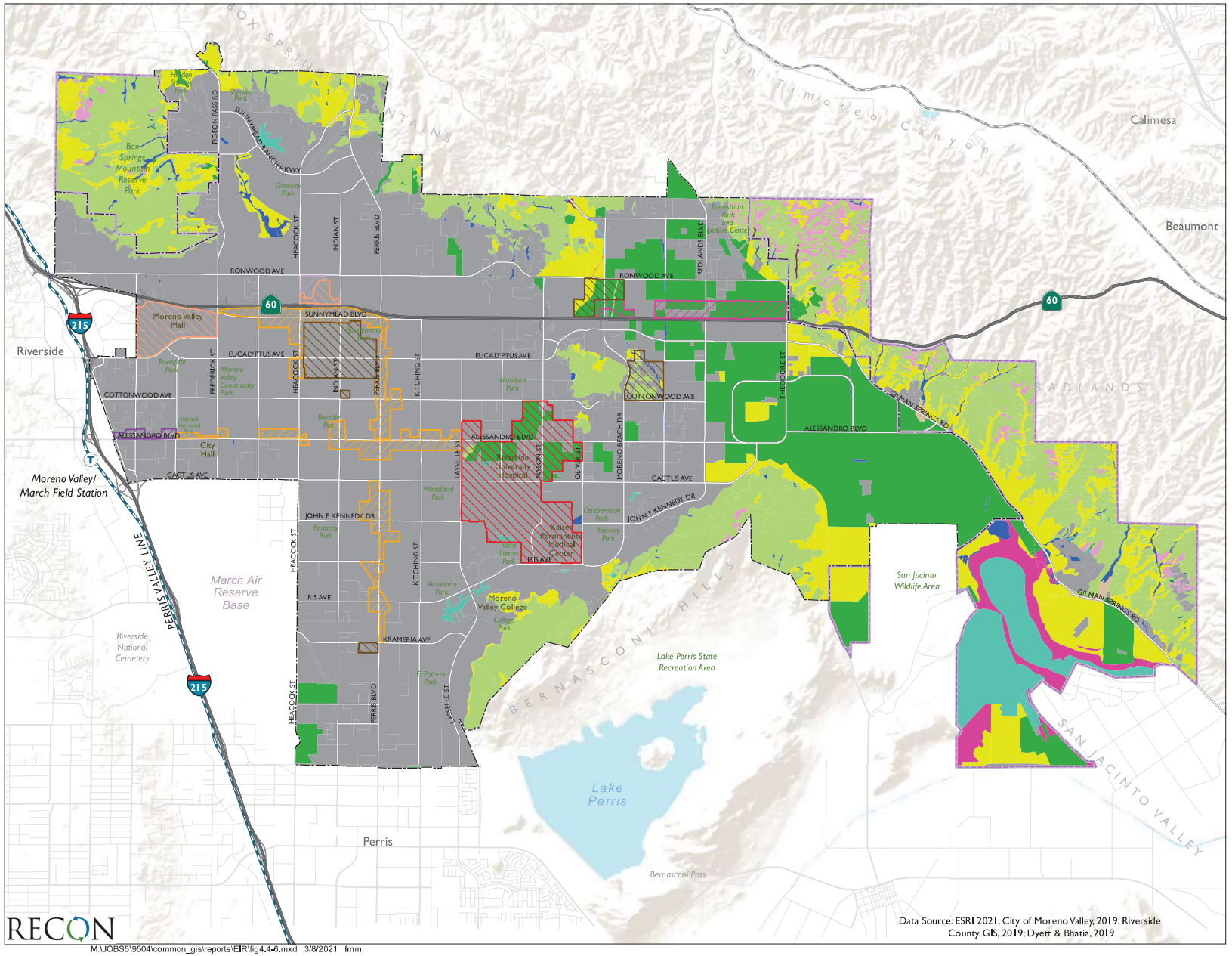
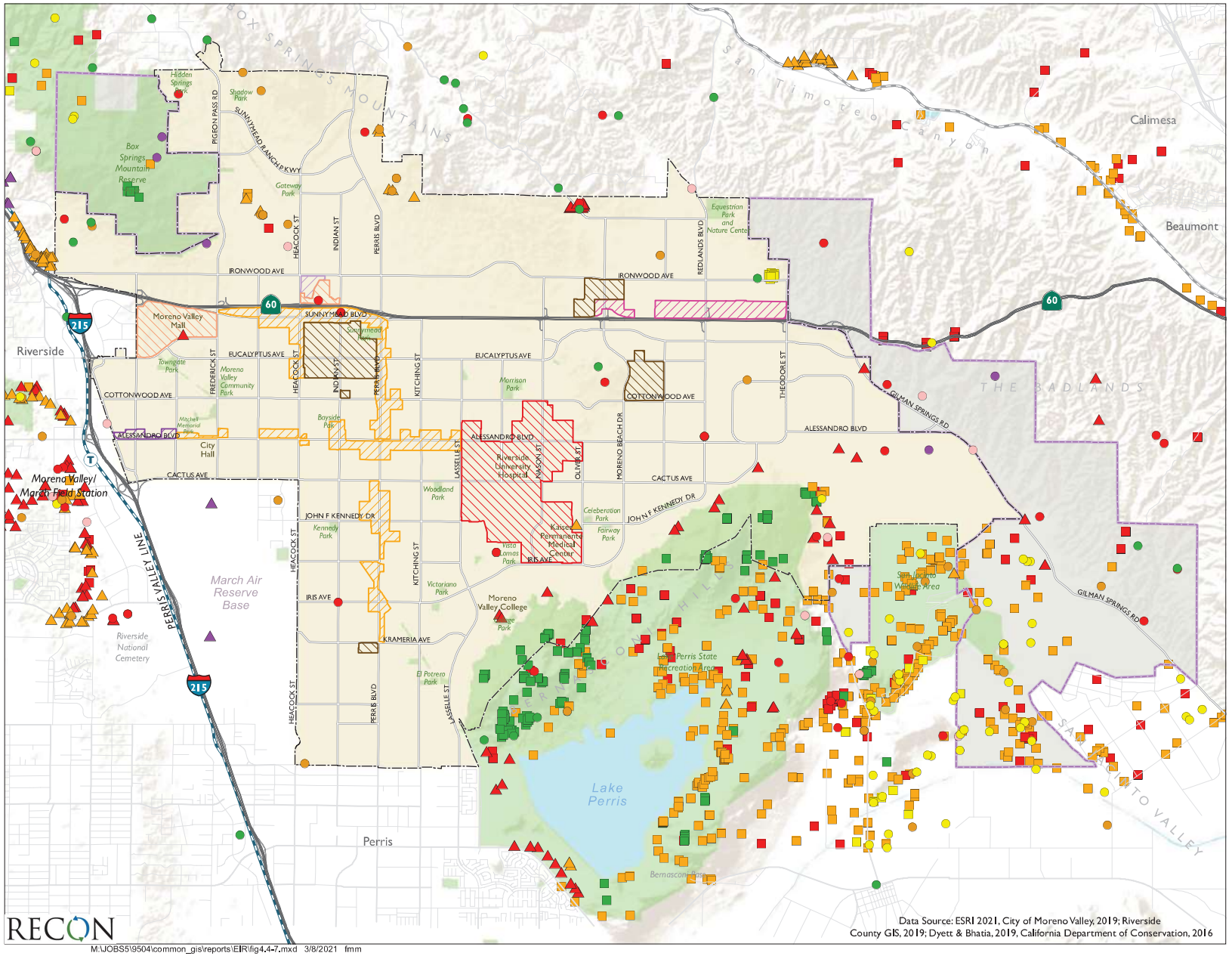


FIGURE 4.4-6
Vegetation Communities Impacts

Figure 4.4-7 presents the locations of the proposed Concept Areas in relation to recorded sensitive species observations within the Planning Area. Sensitive species observations are from 2019 USFWS and CNDDB data sources (CDFW 2021) and observation dates vary, with some being very old and likely prior to development. As shown in Figure 4.4-7, the proposed Concept Areas have few sensitive species observations, with the most observations located within surrounding conserved areas with habitat value. As the observation points shown on Figure 4.4-7 are not intended to denote a specific species location and data accuracy can vary widely, the mapping is used to inform the likelihood of sensitive species within future development areas. While the proposed areas of land use change within the Concept Areas would largely avoid known occurrences of sensitive species by focusing development within areas that consist primarily of developed and/or disturbed land, future development may occur throughout the city and on vacant parcels that may support sensitive species. At a program level of analysis it cannot be known with certainty that impacts to sensitive species could be fully avoided, which would be considered significant.

Future development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of habitat types throughout the Planning Area that may support sensitive species including raptors. Development near the edges of the Planning Area or within the SOI (Badlands) could result in development within Criteria Cells, which would require consistency with the MSHCP. Additionally, indirect impacts to sensitive plant or wildlife species could also result from excess noise, lighting, or runoff generated during construction of projects both within and outside the Concept Areas. Furthermore, project construction could result in impacts to nesting or migratory birds, including raptors (as protected under the MBTA) from the removal of mature trees and/or native vegetation within project areas during the typical bird breeding season (January 15–September 15) or excessive noise.

Future projects would be required to adhere to applicable federal, state and local regulations that provide protections for sensitive species as part of the discretionary approval process for individual development projects. Applicable regulations include the Western Riverside County MSHCP, the Stephens' Kangaroo Rat Fee, and the Migratory Bird Treaty Act, as detailed in Section 4.4.2. Critical habitat for San Bernardino kangaroo rat, San Jacinto Valley crownscale, and spreading navarretia are located outside, but adjacent to the Planning Area (see Figure 4.4-3), which would ensure avoidance of significant impacts. Compliance with applicable regulations at the time of future development proposal would minimize adverse impacts to sensitive species. The following goal, policies, and action within the 2021 GPU Open Space and Resource Conservation Element (OSRC) would serve to preserve biological resources within the Planning Area.



City of Moreno Valley

Sphere of Influence

General Plan Concept Areas

Mixed Use

- Downtown Center
- Center Mixed Use
- Corridor Mixed Use

Commercial/Office/Industrial

- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex

Residential

- Residential Density Changes

MSHCP Species Observations*

- Birds
- Reptiles
- Mammals
- Rare Plants

USFWS Species Observations*

- Birds
- Mammals
- Invertebrates

CNDDB Species Observations*

- Birds
- Reptiles
- Amphibians
- Invertebrates
- Mammals
- Plants
- Riparian

*Species observation locations are estimates and locations may vary from the points shown. Mapping of sensitive species observations is intended to provide an overview of the location and type of species recorded in an area.

0 Miles 1

RECON

M:\JOBS5\9504\common_gis\reports\EIR\fig4.4-7.mxd 3/8/2021 fmm

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019, California Department of Conservation, 2016

FIGURE 4.4-7
MSHCP Covered and USFWS Species Observations

Goal

OSRC-1: Preserve, protect, and enhance natural resources, habitats, and watersheds in Moreno Valley and the surrounding area, promoting responsible management practices.

Policies

OSRC.1-8 Cooperate with federal, State, and local regulatory agencies as well as non-profit organizations to promote the responsible stewardship of natural resources and habitats within the planning area.

OSRC.1-9 Ensure that adverse impacts on sensitive biological resources, sensitive natural communities, sensitive habitat, and wetlands are avoided or mitigated to the greatest extent feasible as development takes place.

OSRC.1-10 In areas where development (including trails or other improvements) has the potential for adverse effects on special-status species, require project proponents to submit a study conducted by a qualified professional that identifies the presence or absence of special-status species at the proposed development site. If special-status species are determined to be present, require incorporation of appropriate mitigation measures as part of the proposed development prior to final approval.

OSRC.1-11 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.

OSRC.1-12 Limit to extent feasible the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.

OSRC.1-13 Promote the use of conservation easements and preserves as means to conserve natural habitats and protect natural resources.

Actions

OSRC.1-D Continue to participate in the implementation of regional habitat conservation and restoration programs, including the Western Riverside County Multiple Species Habitat Conservation Plan and the Stephens' Kangaroo Rat Habitat Conservation Plan.

These policies would maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance. Adherence to these policies during the discretionary review of future development projects consistent with the GPU would serve to minimize impacts to sensitive species. Although numerous regulations including implementation of the MSHCP and GPU policies would minimize impacts to

sensitive species; at a program level of review, it cannot be ensured that all impacts could be reduced to less than significant. Impacts would be considered potentially significant.

4.4.5.2 Topic 2: Sensitive Riparian Habitats

Would the project result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

As shown in Table 4.4-3 above, proposed development within the Concept Areas would have the potential to impact approximately 6.34 acres of riparian scrub, woodland, forest habitat, resulting in a significant impact. Additionally, development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of riparian habitat types throughout the Planning Area. Since the biological resource mapping contained in this document is based on secondary source information rather than site-specific field surveys, potential impacts would need to be refined for individual projects.

As detailed in Section 4.4.2, state regulations regulate impacts to wetland resources, including some riparian habitats. Future site-specific discretionary review will be required for projects consistent with the GPU. This discretionary review will include site specific biological resource analysis and compliance with applicable regulations, plans and General Plan policies. Although site-specific analysis and mitigation at the project level would likely result in mitigation of impacts to sensitive riparian habitats; at a program level of review, it is not possible to ensure impacts of every future project would be fully mitigated. Therefore, impacts to sensitive riparian habitats would be significant.

4.4.5.3 Topic 3: Jurisdictional Wetlands and Waters

Would the project result in substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As shown in Table 4.4-3 above, proposed development within the Concept Areas would have the potential to impact a maximum approximately 6.3 acres of riparian scrub, woodland, forest habitat, which may qualify as wetlands or other jurisdictional resources. Additionally, development and redevelopment would also occur outside of the Concept Areas that would have the potential to impact a variety of habitat types throughout the Planning Area, including areas that may be determined to be wetlands or other jurisdictional resources through future site-specific environmental review. Since the biological resource mapping contained in this document is based on secondary source information rather than site-specific field surveys, potential impacts would need to be refined for individual projects. If warranted, a formal wetland delineation would be required in conjunction with future project applications to identify the precise boundaries of jurisdictional resources and determine the extent of any potential impacts.

As detailed in Section 4.4.2, state and federal regulations regulate impacts to wetland resources. Future site-specific discretionary review will be required for projects consistent

with the GPU. This discretionary review will include site specific biological resource analysis and compliance with applicable regulations, plans and General Plan policies. The proposed land use plan focusing development within the interior of the city combined with the regulatory framework that would apply to future development proposals is anticipated to reduce potential impacts to wetlands; however, at a program level of review, it is not possible to ensure wetland impacts of future projects would be fully mitigated. Therefore, impacts to wetland habitats would be significant.

4.4.5.4 Topic 4: Wildlife Corridors

Would the project 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?

The Planning Area is located within the MSHCP. The MSHCP identifies cores for habitat conservation and linkages for wildlife movement. The Planning Area is partially located within Subunits 1, 2, 3, and 4 of the MSHCP, Reche Canyon/Badlands Area Plan. As described in Section 4.4.1.4 above, the majority of the Planning Area is already developed. The northern edges of the city around the Box Springs Mountains, western portions of the SOI in the Badlands and areas around the San Jacinto Wildlife Preserve and Bernasconi Hills make up the key linkages identified in the Reche Canyon/Badlands Area Plan. These areas support native habitats that allow for wildlife movement within and between these designated core biological resource areas.

The proposed GPU does not propose any land use changes within these key wildlife linkages identified in the MSHCP. A comprehensive analysis of the proposed MSHCP linkages was provided in the July 2006 Moreno Valley General Plan Final EIR. As no land use changes are proposed within core linkage areas compared to the existing adopted plan, the conclusions from the 2006 Final EIR remain valid and are hereby incorporated by reference. The 2006 Final EIR found that impacts to core linkages identified in the MSHCP would be less than significant based on compliance with the MSHCP for projects within Criteria Cell areas (Moreno Valley 2006b). As future development within the Planning Area would be required to undergo a site-specific environmental review including compliance with the MSHCP, the conservation goals for wildlife corridors and linkages identified in the MSHCP would be maintained. Therefore, the project would not interfere substantially with wildlife movement within MSHCP linkages, and impacts would be less than significant.

4.4.5.5 Topic 5: Local Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

All future development, including areas outside of the urban environment within sensitive habitat areas would be required to undergo a site-specific environmental review that would include a consistency review with local regulations, including the Heritage Tree ordinance (Title 9, Chapter 9.17.030, Section G). The discretionary review for future development

consistent with the GPU would additionally require review for consistency with General Plan policies including the GPU Open Space and Resource Conservation Element which includes goals and policy supporting preservation of biological resources. Site specific environmental review for individual development projects will ensure adherence to applicable local policies and ordinances. Therefore, impacts related to conflicts with local policies and ordinances intended to protect biological resources would be less than significant.

4.4.5.6 Topic 6: Habitat Conservation Plan

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

a. Western Riverside County Multiple Species Habitat Conservation Plan

As described in Section 4.4.2.3.a above, the City is a signatory to the MSHCP, which is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. The project has been designed to primarily focus future development and redevelopment within Concept Areas that would avoid MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. Focusing development and redevelopment within these areas that consist primarily of developed and/or disturbed land would minimize conflicts with the MSHCP. However, future development and redevelopment would also occur outside of the Concept Areas, which may include future projects within MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. Such future development would be required to undergo project-specific environmental and design review to determine whether the project would be consistent with the MSHCP. Additionally, the Open Space and Resource Conservation Element of the GPU includes policies that would maintain, protect, and preserve biologically significant habitats where practical, which would serve to maintain consistency with the MSHCP.

b. Stephens' Kangaroo Rat Habitat Conservation Plan

As described in Section 4.4.2.3. above, a small portion of the Stephens' Kangaroo Rat Habitat Conservation Plan's San Jacinto-Lake Perris core reserve area is located within the south portion of the Planning Area (see Figure 4.4-4). However, the GPU would maintain the existing land use designation of Park/Open Space which would serve to maintain this area for wildlife use. No conflict with the Stephens' Kangaroo Rat Habitat Conservation Plan would occur. Impacts would be less than significant.

c. San Jacinto Wildlife Area

A small portion of the San Jacinto Wildlife Area is located within the southeast corner of the Planning Area (see Figure 4.4-5). However, the GPU would maintain the existing land use

designation of Park/Open Space which would serve to maintain this area for wildlife use. No conflict with the goals for this wildlife area would occur. Impacts would be less than significant.

4.4.6 Cumulative Analysis

The geographic scope for cumulative impacts related to biological resources would be the Western Riverside County MSHCP, which is a comprehensive multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats. The Western Riverside County MSHCP has an overall goal of maintaining biological and ecological diversity within a rapidly urbanizing region. All future development within Western Riverside County would undergo project specific environmental review that would evaluate potential impacts to biological resources and determine whether the project would be consistent with the Western Riverside County MSHCP. The proposed land use changes associated with the GPU are consistent with the conservation goals for the MSHCP as development is focused within the existing urban areas of the city, maintaining existing conservation or low-density land use designations within areas bordering or within MSHCP Criteria Cells. Future site-specific environmental review and applicable regulatory requirements including but not limited to the MSHCP, GPU policies, and state and federal wetland regulations would ensure cumulative impacts would be less than significant.

4.4.7 Significance of Impacts before Mitigation

4.4.7.1 Topic 1: Sensitive Species

Buildout of the GPU would have the potential to directly or indirectly impact candidate, sensitive, or special status species. Potential direct impacts would include removal of habitat through future development and redevelopment projects that support sensitive species. Future site-specific environmental review for development consistent with the GPU would ensure appropriate biological surveys are completed and would require adherence to applicable regulations and policies such as the MSHCP and policies in the Open Space and Resource Conservation Element of the GPU. While these regulations are likely to ensure adverse impacts to sensitive species are reduced at the project level, at a program level of analysis it is not possible to ensure that every impact could be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on candidate, sensitive, or special status species, and impacts would be significant.

4.4.7.2 Topic 2: Sensitive Riparian Habitats

Buildout of the GPU has the potential to impact a variety of riparian habitat types throughout the Planning Area. Future site-specific environmental review for development consistent with the GPU would ensure appropriate biological surveys are completed and would require adherence to applicable regulations and policies such as the MSHCP, state and federal wetland regulations, and policies in the Open Space and Resource Conservation Element of the GPU. While these regulations are likely to ensure adverse impacts to sensitive riparian habitats are reduced at the project level, at a program level of analysis it is not

possible to ensure that every impact could be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on sensitive riparian habitats, and impacts would be significant.

4.4.7.3 Topic 3: Jurisdictional Wetlands and Waters

Buildout of the GPU has the potential to adversely affect jurisdictional wetlands and waters. While subsequent development and redevelopment projects would be required to evaluate potential impacts on wetlands through project-level CEQA documentation and would be required to obtain applicable state and federal wetland permits, at a program level of analysis it is not possible to ensure that every impact would be fully mitigated. Therefore, the project would have the potential to result in a substantial adverse effect on wetlands, and impacts would be significant.

4.4.7.4 Topic 4: Wildlife Corridors

The GPU land use changes are focused within the center of the city and existing land uses within and adjacent to key linkage areas in the MSHCP are maintained, ensuring the overall conservation goals and linkages needed to maintain wildlife movement would be maintained. As future development within the Planning Area would be required to undergo a site-specific environmental review including compliance with the MSHCP, the conservation goals for wildlife corridors and linkages identified in the MSHCP would be maintained. The GPU would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and impacts would be less than significant.

4.4.7.5 Topic 5: Local Ordinances

Future projects would be required to comply with GPU policies that support protection of biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance. During future site-specific discretionary reviews, individual projects will be required to demonstrate consistency with applicable local ordinances protecting biological resources. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be less than significant.

4.4.7.6 Topic 6: Habitat Conservation Plan

The project has been designed to primarily focus on future development and redevelopment within Concept Areas and along Community Corridors that would avoid MSHCP Conserved Lands, Criteria Cells, and Public/Quasi Public Lands. While no land use changes are proposed within MSHCP Conserved Lands, Criteria Cells, Public/Quasi Public Lands, or Stephens' Kangaroo Rat Habitat Conservation Plan areas, the existing plan allows for limited development within these areas. However, any development within MSHCP Criteria Cells or other conserved status lands would require a discretionary review including a site-specific biological analysis including demonstrating compliance with MSHCP conservation goals.

Project-specific environmental review and required compliance with the MSHCP and other applicable plans would ensure consistency with applicable habitat conservation plans. Impacts would be less than significant.

4.4.8 Mitigation

Mitigation measure BIO-1 would require a site-specific biology survey for sites with the potential for sensitive biological resources to be present. This survey would occur at the time future projects are proposed, based on site-specific conditions at the time of application. The measures provide a framework for future development consistent with the General Plan to reduce potentially significant impacts to the extent feasible.

4.4.8.1 Topic 1: Sensitive Species

BIO-1: Applications for future development of vacant properties (and portions thereof), wherein the Director of Community Development or his or her designee has determined a potential for impacts to sensitive biological resources, shall be required to prepare a site-specific general biological resources survey to identify the presence of any sensitive biological resources, including any sensitive plant or wildlife species. The report shall identify the need for focused presence/absence surveys and identify the presence of state or federal regulated wetlands or waters. If potentially significant impacts to sensitive biological resources, including sensitive species and/or wetlands are identified, the report shall also recommend appropriate mitigation to reduce the impacts to below a level of significance.

BIO-2: Applications for future development, wherein the Director of Community Development or his or her designee has determined a potential for impacts to mature trees and/or native vegetation suitable for nesting birds, shall be required to restrict removal of sensitive habitat and vegetation to outside the breeding seasons of any sensitive species identified within adjacent properties (typical bird breeding season is February 1–September 1. as early as January 1 for some raptors). If vegetation clearing must begin during the breeding season, a qualified biologist shall provide recommendations to avoid impacts to nesting birds which typically includes a pre-construction survey within 3 days of the start of construction to determine the presence of active nests.

If active nests are found, avoidance measures shall be implemented to ensure protection of the nesting birds. Avoidance measures may include a no-activity buffer zone, typically 300 feet from the area of disturbance or 500 feet for raptors, established at the discretion of the qualified biologist in consultation with the City, If activity buffer zones are not feasible, temporary noise barriers may be installed to attenuate construction noise. Noise wall height and adequacy shall be supported by a noise analysis to determine the anticipated construction noise levels with attenuation measures as recommended by the biologist and approved by the City. Periodic noise monitoring shall be

conducted during construction to ensure noise attenuation standards are met. Accepted noise levels are species dependent and existing ambient noise levels can play a factor in establishing baseline acceptable noise.

4.4.8.2 Topic 2: Sensitive Riparian Habitats

Refer to mitigation measure BIO-1.

4.4.8.3 Topic 3: Jurisdictional Wetlands and Waters

Refer to mitigation measure BIO-1.

4.4.8.4 Topic 4: Wildlife Corridors

Impacts would be less than significant. No mitigation is required.

4.4.8.5 Topic 5: Local Ordinances

Impacts would be less than significant. No mitigation is required.

4.4.8.6 Topic 6: Habitat Conservation Plan

Impacts would be less than significant. No mitigation is required.

4.4.9 Significance of Impacts after Mitigation

4.4.9.1 Topic 1: Sensitive Species

Implementation of mitigation measures BIO-1 and BIO-2 would reduce impacts on sensitive and special status species. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to candidate, sensitive, or special status species would remain significant and unavoidable at this program level of review.

4.4.9.2 Topic 2: Sensitive Riparian Habitats

Implementation of the mitigation measures described above would reduce impacts on riparian habitats. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to riparian habitats would remain significant and unavoidable at this program level of review.

4.4.9.3 Topic 3: Jurisdictional Wetlands and Waters

Implementation of the mitigation measures described above would reduce impacts on wetlands. However, no specific projects have been identified at this time, and it is not possible to ensure that every future project could fully mitigate potentially significant impacts to wetlands despite the applicable regulatory framework. Therefore, impacts to jurisdictional wetlands and waters would remain significant and unavoidable at this program level of review.

4.4.9.4 Topic 4: Wildlife Corridors

Impacts would be less than significant. No mitigation is required.

4.4.9.5 Topic 5: Local Ordinances

Impacts would be less than significant. No mitigation is required.

4.4.9.6 Topic 6: Habitat Conservation Plan

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.5, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR for a redlined version of the Chapter.

4.5 Cultural and Tribal Cultural Resources

This section analyzes potentially significant impacts related to cultural resources, which include Tribal cultural resources that could result from implementation of the Project, which consists of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP). The analysis area covers the entire City of Moreno Valley (City) and sphere of influence, which are collectively referred to as the Planning Area. This analysis relies on secondary source information and the review of existing cultural resources databases and literature.

4.5.1 Existing Conditions

Cultural resources are generally categorized into three subtopics: archaeological, historic, and Tribal cultural resources. Archaeological resources (generally located below ground surface) are divided into two categories: prehistoric and historic age. Prehistoric archaeological resources date from before the onset of the Spanish Colonial period (1769 to 1848) and historic archaeological resources date from and after the onset of the Spanish Colonial period. An historic resource (generally located above ground) is any building, structure, or object that is at least 50 years of age and that is, or may be, significant architecturally or culturally in local, state, or national history. Tribal cultural resources are generally similar to the federally defined Traditional Cultural Properties (TCPs), but incorporate consideration of local and state significance and required mitigation under the California Environmental Quality Act (CEQA). A TCP may be considered eligible for listing based on "its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community".[1] Strictly speaking, TCPs are both tangible and intangible; they are anchored in space by cultural values related to community-based

[1] Parker, Patricia L., and Thomas F. King, 1998, Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Register Bulletin 38, National Park Service.

physically defined "property referents".[2] On the other hand, TCPs are largely ideological, a characteristic that may present substantial problems in the process of delineating specific boundaries. Such a property's extent is based on community conceptions of how the surrounding physical landscape interacts with existing cultural values. By its nature, a TCP need only be important to community members and not the general outside population as a whole.

4.5.1.1 Cultural Setting

The following culture chronology for Riverside County is based on a synthesis of the existing literature. This chronology is intended as a general model, which is dynamic and subject to modification as new information is uncovered. The prehistory of western Riverside County has been included as part of the coastal San Diego subregion.[3] Consequently, much is made of work completed in San Diego County, to the south of the Planning Area.

a. Early Holocene (10,000–7,000 B.P.)

The early occupants of the Riverside area are archaeologically represented by a culture pattern known as the Western Pluvial Lakes Tradition (WPLT).[4] The WPLT includes the Playa, San Dieguito, Lake Mojave, and Death Valley I complexes. It is defined by:

- Site locations being on or near former pluvial lakeshores or along old streams;
- A focus on hunting mammals and collecting and gathering plant materials;
- A toolkit including chipped-stone crescents, large flake and core scrapers, choppers, scraper-planes, hammerstones, several types of cores, drills and gravers, and a variety of flakes; a developed flaked-stone technology with percussion-flaked foliate knives and points, Silver Lake and Lake Mojave points; and
- A lack of ground stone artifacts.

The WPLT people were adapted to a wetter environment before the warmer climate led to the evaporation of the lakes.[5]

b. Middle Holocene (7,000–1,500 B.P.)

The Millingstone Horizon occurs during this time period in western Riverside County. The Millingstone Horizon includes the La Jolla, Pauma, and Sayles complexes.[6] The La Jolla

[2] Ibid.

[3] Morrato, Michael J., 1984, California Archaeology, Academic Press, San Diego.

[4] Bedwell, S.F, 1970, *Prehistory and Environment of the Pluvial Fork Rock Lake Area, South Central Oregon*. Doctoral dissertation, Department of Anthropology, University of Oregon, Eugene.

[5] Morrato, Michael J., 1984, California Archaeology, Academic Press, San Diego.

[6] Ibid.

Complex was defined from coastal San Diego sites.[7] An apparent inland manifestation of the La Jolla Complex was termed the "Pauma Complex" by D. L. True, who proposed the name to describe assemblages recovered from more than 20 inland sites in northern San Diego County.[8] The La Jolla and Pauma complexes have very similar assemblages and are thought to be different environmental adaptations of the same culture.[9] Archaeological investigations in the Cajon Pass were used to define the type site (SBR-421) for the Sayles Complex.[10] As described by Kowta, the Sayles Complex is defined as a variant of the Millingstone Horizon from the vicinity of the Cajon Pass.

The Millingstone Horizon assemblages suggest a generalized subsistence focus with an emphasis on hard seeds. This emphasis is indicated by the increased frequency of slab and basin metates and the adoption of a mixed cobble/core-based tool assemblage composed primarily of crudely made choppers, scrapers, and cobble hammerstones. The assemblage is typically dominated by crude, cobble-based choppers, scrapers, and flake knives. Scraper-planes are also abundant, which Kowta suggests were used to process agave and yucca. Projectile points are relatively rare, but late in the period, Elko type points are occasionally seen. Portable basin and slab metates are relatively plentiful, suggesting an economic focus on gathering plant resources. Mortars and pestles appear in the Millingstone Horizon, suggesting the use of acorns. The presence of shell middens distinguishes the La Jolla Complex from the other Millingstone Horizon complexes.

c. Late Holocene (1,500 B.P.–1769)

Shoshonean-speaking people from the Colorado River region moved westward into Riverside County during the Late Holocene.[11] Cultures representative of this time are the San Luis Rey Complex in northern San Diego County and western Riverside County and the Irvine Complex in Orange County.[12,13,14] First described by Meighan, and based on excavations at Pala, the San Luis Rey Complex is divided into an early phase, San Luis Rey I, and a later phase, San Luis Rey II. San Luis Rey I sites are associated with bedrock outcrops and often have recognizable midden soils. Features may include cremations and bedrock mortars. The artifact assemblage includes metates, Cottonwood Triangular type projectile points, drills, bifacially flaked knives, bone awls, occasional steatite arrow shaft straighteners, and bone and shell ornaments.[15] San Luis Rey II sites consist of the same assemblage with the addition

---

[7] Rogers, M.J., 1938, Archaeological and Geological Investigations of the Culture Levels in an Old Channel of San Dieguito Valley. *Carnegie Institution of Washington* Yearbook 37:344-45.

[8] True, D.L.,1958, An Early Complex in San Diego County, California. American Antiquity 23(3):255-263.

[9] *Ibid*.

[10] Kowta,M., 1969, The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Its Scraper Planes. *University of California Publications in Anthropology* No. 6. Berkeley and Los Angeles.

[11] Morrato, Michael J., 1984, California Archaeology, Academic Press, San Diego.

[12] Meighan, Clement W., 1954, A Late Complex in Southern California Prehistory, *Southwestern Journal of Anthropology, 10:215-227.*

[13] Morrato, Michael J., 1984, California Archaeology, Academic Press, San Diego.

[14] True, D.L.,1958, An Early Complex in San Diego County, California. American Antiquity 23(3):255-263.

[15] True, D. L., C. Meighan, and H. Crew, 1974, Archaeological Investigations at Molpa, San Diego County, California. University of California Publications in Anthropology No. 11.

of Tizon Brown Ware ceramics, red and black pictographs, cremation remains in urns, and historic materials such as glass beads and metal objects. The projectile points commonly found in San Luis Rey assemblages, Cottonwood Triangular and, less frequently, Desert side-notched forms, are both smaller than earlier types, suggesting the introduction of bow-and-arrow technology into the region.

4.5.1.2 Ethnography

The Planning Area includes an area where the traditional territories of the Cahuilla, Luiseño, and the Gabrieliño intersect.[16,17]

The Cahuilla are one of the most southwesterly of the Shoshonean or Uto-Aztecan speakers. They are members of the Takic branch of this large language family. Traditional Cahuilla territory originally included western and part of central Riverside County and extended into northeastern San Diego and northwestern Imperial counties. The western boundary generally followed the Santa Ana, Elsinore, and Palomar mountains. The northern boundary extended north of Riverside to the San Gabriel and San Bernardino mountains. Cahuilla territory extended east to include the Coachella Valley and down the valley as far south as the approximate middle of the Salton Sea. The approximate southern territorial limits included Borrego Springs and the south end of the Santa Rosa Mountains. The Cahuilla territory consisted of the mountain, the pass or western, and the desert divisions.[18,19,20]

Cahuilla society consisted of two ceremonial divisions or moieties: wildcat and coyote.[21] People were further divided into somewhat localized, patrilineal clans. Each clan had a chief: *net* in Cahuilla.[22] Some villages contained people of only one clan, but other villages had more than one clan. Also, people of one clan may have lived in more than one village. Chiefs were usually chosen by heredity. They were primarily concerned with economic issues such as determining where and when people should gather particular foods or hunt game, and for the correct maintenance of the ritual aspect of the clan. Choice hunting and gathering areas were owned by the clan. The clan chief also settled intraclan disputes and met with other *nets* to solve interclan problems and organize ceremonies among clans.

The Luiseño were Shoshonean or Uto-Aztecan-speaking populations that were found in northern San Diego, southern Orange, and southeastern Riverside counties from the onset of ethnohistoric times through the present day. These people are linguistically and culturally related to the Gabrieliño and Cahuilla and appear to be the direct descendants of Late

---

[16] Kroeber, A.L., 1970, Handbook of the Indians of California. California Book Company, Berkeley.

[17] Bean, Lowell John, and C. R. Smith 1978 Gabrielino. In California, edited by Robert F. Heizer. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

[18] Bean, Lowell John 1978 Cahuilla. In California, edited by Robert F. Heizer, pp. 575-587. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

[19] Hooper, Lucille 1920 The Cahuilla Indians. American Archaeology and Ethnology. University of California Press, Berkeley.

[20] Strong, William D. 1929 Aboriginal Society in Southern California. UC (Berkley) Publications in American Archaeology and Ethnology 26(1):1-358. University of California, Berkeley.

[21] Kroeber, A. L. 1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington, D.C.

[22] *Ibid*.

Prehistoric populations. The basic unit of Luiseño social structure was the clan triblet. The triblet was composed of patrilineally related people who were politically and economically autonomous from neighboring triblets. Unlike other Takic-speaking Tribes that surround them, the Luiseño do not appear to have been organized into exogamous moieties (descent groups that married outside one's birth group), but may have been loosely divided into mountain-oriented groups and ocean-oriented groups.[23] One or more clans would reside together in a village.[24] A heredity village chief held a position that controlled economic, religious, and warfare powers.[25]

The Gabrieliño were Cupan speakers. The Cupan languages are part of the Takic family, which is part of the Uto-Aztecan linguistic stock. Their Tribal territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, all of the Los Angeles Basin, the coast from Aliso Creek in the south to Topanga Creek in the north, and the islands of San Clemente, San Nicholas, and Santa Catalina. Villages or triblets were politically autonomous and made up of different lineages. Each lineage had its own leader and would seasonally leave the village to collect resource items. The Gabrieliño traded with the Serrano to the east. They traded their coastal shell through middlemen to the interior of southern California and the Southwest. Steatite from Santa Catalina Island was their main trade item.

4.5.1.3 Historic Period

The Spanish Period in California (1769–1821) represents a time of European exploration and settlement. Military and religious contingents established the San Diego Presidio and the San Diego Mission in 1769, San Carlos Borromeo (Carmel) in 1770, and San Gabriel Arcangel in 1771. Mission San Gabriel Arcangel claimed the areas around Riverside, Jurupa, San Jacinto, and the San Gorgonio Pass. The opening of the mission system created the need to link Alta California with Sonora. Juan Bautista de Anza of Tubac was commissioned to open up a road across the Colorado Desert to San Gabriel and on to Monterey. The first de Anza Expedition took place between 1774 and 1775. Anza stopped in the vicinity of present-day Riverside at an Indian Village along the Santa Ana River southwest of Mount Rubidoux.[26]

Most scholars suggest that the Spanish mission system usually, but not always, used forced Native American labor to produce goods and provide services needed for European

[23] Bean, Lowell John, and F. Shipek 1978 Luiseño. In California, edited by R. F. Heizer, pp. 550-563. Handbook of North American Indians, vol. 8, W.C. Sturtevant, general editor, Smithosonian Institute. Washington, D.C.

[24] Oxendine, Joan 1983 The Luiseno Village During the Late Prehistoric Era. PhD dissertation, University of California, Riverside.

[25] Bean, Lowell John, and F. Shipek 1978 Luiseño. In California, edited by R. F. Heizer, pp. 550-563. Handbook of North American Indians, vol. 8, W.C. Sturtevant, general editor, Smithosonian Institute. Washington, D.C.

[26] Hoover, Mildred Brooke, Douglas E. Kyle, and Ethel G. Rensch 2002 Historic Spots in California. Stanford University Press, Sanford.

settlement.[27,28,29,30,31] The mission system also introduced horses, cattle, sheep, and agricultural goods and implements, and provided new construction methods and architectural styles. As stated above, the vicinity of Riverside was part of the San Gabriel Mission.[32] Many Native American lands were taken over by the Spanish for cattle grazing. Also with the arrival of the Spanish came devastating epidemics and very high death rates.[33]

The Mexican Period (1821–1848) retained many of the Spanish institutions and laws. Cattle ranching still dominated the economy and the development of the hide and tallow trade with New England merchant ships increased during the early part of the Mexican Period. The Spanish mission system was secularized by the Mexican government, and these lands allowed for the dramatic expansion of the rancho system. Although a total of 16 land grants were established in what became Riverside County, none included the City of Moreno Valley. The Spanish mission system was secularized by the Mexican government, and the redistribution of these lands allowed for the dramatic expansion of the rancho system. The City is located between Jurupa (Rubidoux) and Rancho San Jacinto Nuevo y Potrero. Following the 1848 Treaty of Guadalupe Hidalgo, Rancho San Jacinto Nuevo y Potrero was filed with the Public Land Commission in 1852, and the grant was patented to T. W. Sutherland, guardian of the minor children of Miguel Pedrorena in 1883.[34]

In the 1830s and 1840s, an increasing number of Americans were settling in California and the Southwest, and in 1836 Texas declared its independence from Mexico. In February 1846, Texas was annexed by the United States, triggering the Mexican–American War.[35] Americans in northern California revolted and declared an independent California Republic, which ceased to exist three weeks later, when U.S. naval forces took Monterey on July 7, 1846. The California part of the war ended in Los Angeles on January 13, 1848, and the Treaty of Guadalupe Hidalgo was signed on February 2, 1848. California became a state in 1850.

The Moreno Valley area began to develop in the late 1880s with the establishment of the Alessandro and Moreno settlements. The community of Moreno was built around the intersection of Redlands Boulevard and Alessandro Boulevard and named in honor of Frank Brown (Moreno in Spanish), a civil engineer, who had visions of a successful agricultural

[27] Forbes, Jack D. 1982 Native Americans of California and Nevada. Naturegraph Publishers, Happy Camp, California.

[28] Hurtado, Albert L. 1988 Indian Survival on the California Frontier. Yale University Press, New Haven.

[29] McWilliams, Carey, 1973, Southern California: An Island on the Land. Peregrine Smith Books, Salt Lake City, Utah.

[30] Castillo, Edward D. 1978 The Impact of Euro-American Exploration and Settlement. In California, edited by Robert F. Heizer, pp. 99-127. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

[31] Rawls, James J., and Walton Bean 1998 California, An Interpretive History. McGraw-Hill, Boston, Massachusetts.

[32] Lech, Steve 2004 American Local History Network's: Riverside County, California, https://usgennet.org/. Accessed on February 17, 2025.

[33] Cook, Sherburne F. 1976 The Population of California Indians, 1769-1970. Berkeley: University of California Press.

[34] Willey, H. I. 1886 Annual Report of the Surveyor-General of the State Of California, from August 1, 1884, to August 1, 1886. Sacramento, California.

[35] Department of State, Office of the Historian, The Annexation of Texas, the Mexican-American War, and the Treaty of Guadalupe-Hidalgo, 1845-1848, https://history.state.gov/milestones/1830-1860/texas-annexation. Accessed on February 17, 2025.

community like he had established in Redlands to the north of the Valley.[36] The community of Alessandro was located within the limits of present-day March Air Reserve Base (MARB). In 1893 Brown formed the Bear Valley Land and Water Company and built a dam at Bear Valley in the San Bernardino Mountains to provide water to the communities of Redlands at first and ultimately the communities of Moreno and Alessandro. The increased demands for water from Bear Valley resulted in litigation with the City of Redlands which claimed priority rights. In 1891, the Perris & Alessandro Irrigation District was formed by order of the San Bernardino County Board of Supervisors to solve the litigation between Redlands and the Moreno Valley region over water use from the Bear Valley Dam. Redlands won the litigation in 1899. The majority of the Valley was abandoned that year after the loss of water rights and due to a drought.[37]

The Alessandro Aviation Field was established in 1918 and then renamed to March Field. March Field closed in 1923 after World War (WW) I, and re-opened in 1927 as a flight training school.[38] The name was changed March Air Force Base in 1947.[39] The unincorporated community of Sunnymead was established in 1922 and was followed by the unincorporated community of Edgemont in 1940. The development of March Air Force Base post-WWII aided in the continued growth of Edgemont and Sunnymead. The Eastern Municipal Water District began to supply water to the Valley in 1954. The dam at Lake Perris was completed in 1970. In 1984, the communities of Edgemont, Sunnymead, and Moreno came together to form the City of Moreno Valley and the first general plan was adopted in 1986 to guide future growth and development.[40]

4.5.1.4 Existing Historic and Prehistoric Resources

In March 2020, RECON requested a records search for the Planning Area from the California Historical Resources Information System, at the Eastern Information Center (EIC), located at the University of California Riverside.[41] To identify the presence of cultural resources, the cultural records search inventoried the following:

- The National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- California Historical Landmarks, California Points of Historical Interest
- California State Historic Resources Inventory through the Office of Historic Preservation Historic Property Data File for Riverside County.

[36] Redlands Daily Facts 2008 The Rise and Fall of Frank Brown, https://www.redlandsdailyfacts.com/2008/08/09/the-rise-and-fall-of-frank-brown/. Accessed on February 14, 2025.

[37] Moreno Valley, 2020, About Moreno Valley, https://moval.gov/resident_services/mv-history.html. Accessed on February 17, 2025.

[38] Air Force Civil Engineer Center (AFCEC), MARCH History, https://www.afcec.af.mil/Home/BRAC/March/History/. Accessed on February 17, 2025.

[39] *Ibid*.

[40] Moreno Valley, 2020, About Moreno Valley, https://moval.gov/resident_services/mv-history.html. Accessed on February 17, 2025.

[41] The Eastern Information Center (EIC) ceased operations on Friday June 28, 2024. The South Coastal Information Center (SCIC) located at San Diego State University (SDSU) received Riverside County records.

RECON also reviewed the cultural resources information from the 2006 Moreno Valley General Plan Program EIR.

a. Historic Resources

Review of the records search from EIC and recent aerial photographs identified 48 existing historic resources. The types of historic resources identified in the records search include adobe buildings, canals/aqueducts, cisterns, wells, foundations, walls, farms/ranches, highway, military property, single-family property, and multi-family property. The majority of the historic resources have not been evaluated for significance under CEQA. Significance criteria and eligibility definitions are provided in Section 4.5.2 below. A description of each of these resources is provided in Table 4.5-1, and the locations of each of these resources is presented in Figure 4.5-1. Of the 48 historic resources that were identified within the Planning Area, the following were determined to be significant:

- Old Moreno School (P-33-007278) – listed as a California Point of Historical Interest.
- Two single-family properties (P-33-007287 and P-33-007288) – recommended eligible at the local level.
- Three single-family properties (P-33-007284, P-33-007286, and P-33-007289) and one multi-family property (P-33-007285) – recommended eligible for the NRHP.
- First Congregational Church – Listed as significant in the existing 2006 General Plan.

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
1	P-33-001705	CA-RIV-001705	Adobe, block structures	Likely not significant	1979 (C.E. Drover, n/a)	Existing
2	P-33-003248	CA-RIV-003248/H	Cistern	Likely not significant	1987 (Karen K. Swope, Archaeological Research Unit, UC Riverside [UCR], CA.)	Site is still vacant
3	P-33-003249	CA-RIV-003249/H	Cistern	Likely not significant	1987 (Karen K. Swope, Archaeologist Research Unit, UCR, CA.)	Site is still vacant
4	P-33-006229		Road; Highway	Not Evaluated	1983 (Jim Warner, Riverside County Historical Commission [RCHC])	See 33-021095 Jack Rabbit Trail road
5	P-33-006915		Single-family property	Not evaluated	1983 (Jim Warner, RCHC)	Older home existing on-site; 21730 Bay Avenue
6	P-33-006916		Single-family property	Not evaluated	1983 (Jim Warner, RCHC)	Older home existing on-site; 21874 Bay Avenue
7	P-33-006917		Single-family property	Not evaluated	1983 (Jim Warner, RCHC)	Older home existing on-site; 21613 Cottonwood Avenue
8	P-33-006918		Single-family property	Not evaluated; listed as eligible under Criterion 3 as a good example of Moorish architecture under GP 2006	1983 (Jim Warner, RCHC) circa 1938	Older home existing on-site (built in 1938): 21768 Cottonwood Avenue
9	P-33-006919		Single-family property	Not evaluated	1983 (Jim Warner, RCHC)	Older home existing on-site; 13694 Edgemont Street

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
10	P-33-007275		Single-family property	Not evaluated	1983 (Jim Warner, RCHC) (County of Riverside)	Older home existing on-site; 12130 Theodore Street
11	P-33-007278		Single-family property; Educational building: Moreno School	Listed as point of historical interest; Under Criterion 3 (oldest local structure; excellent example of Mission Revival architecture)	1983 (Jim Warner, RCHC); 1988 (Gerald A. Maloney, Department of Parks); 1988 (Cynthia Howse, n/a)	Structure remains on-site; 28780 Alessandro Blvd.
12	P-33-007284		Single-family property	Recommended eligible NR, under Criterion C as a good example of rural architecture	1983 (Jim Warner, RCHC)	Home existing on-site; 24638 Fir Avenue
13	P-33-007285		Multiple family property	Recommended eligible NR, under Criterion C for its unusual use of a hipped gable and unique use of a single hipped gablet	1983 (Jim Warner, RCHC)	Home existing on-site; 23741 Hemlock Avenue
14	P-33-007286		Single-family property	Recommended eligible NR, under Criterion C as a good example of early housing in the Sunnymead area	1983 (Jim Warner, RCHC)	Home existing on-site; 11808 Indian Street
15	P-33-007287		Single-family property	Recommended eligible locally; under Criterion 2 as being associated with a Japanese potato farmer who built a major irrigation system	1983 (Jim Warner, RCHC)	Home existing on-site; 11811 Indian Street
16	P-33-007288		Single-family property	Recommended eligible locally, under Criterion 3 for	1983 (Jim Warner, RCHC)	Home existing on-site; 11919 Indian

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
				its design by Air Force architect Colonel Rufus Pilshire		Street, moved from 1795 University Avenue, Riverside
17	P-33-007289		Single-family property	Recommended eligible NR, under Criterion C for its board and batten siding in the Sunnymead area	1983 (Jim Warner, RCHC)	Home existing on-site; 12680 Indian Street
18	P-33-011604		Well	Not significant	2001 (Riordan Goodwin, LSA Associates, Inc.)	Cannot verify on aerial
19	P-33-013109		Spring house, house foundations	Not evaluated	1983 (R. Mason, Scientific Resource Surveys, Inc.)	Vacant site; possibly near south end of Province Circle
20	P-33-014210		Single-family property	Not significant	2005 (White, Laura S., Archaeological Associates)	Existing home built in the 1980s
21	P-33-014211		Single-family property	Not significant	2005 (White, Laura S., Archaeological Associates)	Existing home built in the 1980s
22	P-33-014952	CA-RIV-007951	Water conveyance system	Not significant	2006 (Cary D. Cotterman, ECORP Consulting, Inc.)	Existing (blue line stream on-site)
23	P-33-015025/ P-33-15029	CA-RIV-007989/-07993	Dam and Reservoir	Not significant	2004 (Goodwin, R., LSA Associates, Inc.); 2005 (Brunzell, David, LSA Associates, Inc.)	Existing
24	P-33-015027	CA-RIV-007991	Water conveyance system	Not significant	2004 (Goodwin, Riordan, LSA Associates, Inc.)	Existing
25	P-33-015030	CA-RIV-007994	Water conveyance system	Not significant	2004 (Brunzell, D., LSA Associates)	Existing

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
26	P-33-015649		Isolate - trough	Not significant	2006 (J. Sanka, Michael Brandman Associates)	Existing
27	P-33-015796		Foundations	Likely not significant	2006 (Jeanette A. McKenna, McKenna et al.)	Existing
28	P-33-015934		Single-family property; Trees; Farm/ranch	Not evaluated	2006 (Daly, Pamela, PCR Services, Inc.)	Existing; 27913 Cottonwood Avenue
29	P-33-019871	CA-RIV-010116	Water conveyance system	Likely not significant	2011 (William R. Gillean, Atkins)	Existing
30	P-33-019915	CA-RIV-010123	Water conveyance system; Reservoir	Likely not significant	2009 (C. Cotterman, ECORP Consulting)	Existing
31	P-33-019919		Well; Water conveyance system	Likely not significant	2010 (C. Cotterman, ECORP Consulting)	Existing
32	P-33-021095/ P-33-021096		Highway, gravel pits, culvert	Likely not significant	2012 (Josh Smallwood, Applied Earthworks, Inc.)	See P-33-11621 (Table 4.5-2), P-33-006229
34	P-33-024854		Canal/Engineering structure	Not significant	2016 (Josh Smallwood, Applied EarthWorks, Inc.)	Existing
35	P-33-024867		Canal/ aqueduct	Not significant	2016 (Josh Smallwood, Applied EarthWorks, Inc.)	Existing
36	P-33-024868		Highway	Not significant	2016 (Josh Smallwood, Applied EarthWorks, Inc.)	Existing; southern end of Heacock Street
37	P-33-027260		Isolate - metal pipe	Not significant	2017 (Riordan Goodwin, LSA Associates Inc)	Existing

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
38	P-33-028081	CA-RIV-012678	Walls/ fences	Likely not significant	2017 (H. Murphy, K. Stankowski, R. Bolger, M. Jorgensen & D. Faith, Tierra Environmental Services, Inc.)	
39	P-33-028200	CA-RIV-012721	Canal/ aqueduct	Likely not significant	2018 (Salvadore Z. Boites, CRM Tech)	Existing
40	P-33-028580		Road	Not significant	2017 (Kristina Lindgren, ECORP Consulting, Inc.)	Existing; Alessandro Blvd.
41	P-33-028581		Road	Not significant	2017 (Kyle Garcia, ESA)	Existing; Oliver St
42	P-33-028827		Foundations	Not significant	2017 (Kyle Garcia, ESA)	Existing
43	P-33-028828		Foundations	Not significant	2017 (Kyle Garcia, ESA)	Existing
44	P-33-028829		Foundations	Not significant	2017 (Kyle Garcia, ESA)	Existing
45	P-33-028830		Foundations; Other	Not significant	2017 (Kyle Garcia, ESA)	Existing
46	P-33-028831		Foundations	Not significant	2017 (Kyle Garcia, ESA)	Existing
47	n/a		First Congregational Church of Moreno	Significant, under Criterion 3 as an example of the oldest surviving structures in Moreno	n/a	Moved to current location at 24215 Fir Avenue
48	n/a		Cottonwood Golf Center	Not Significant	n/a	13671 Frederick Street

Table 4.5-1
List of Historic Resources and their Eligibility Status*

	Primary Number	Trinomial Number	Resource Type	Eligibility	Recording Events	Notes
*The EIC identified 94 historic resources. However, review of recent aerial photographs determined that only 48 of these historic resources currently exist. The EIC ceased operations on Friday June 28, 2024. The South Coastal Information Center (SCIC) located at San Diego State University (SDSU) received Riverside County records.						

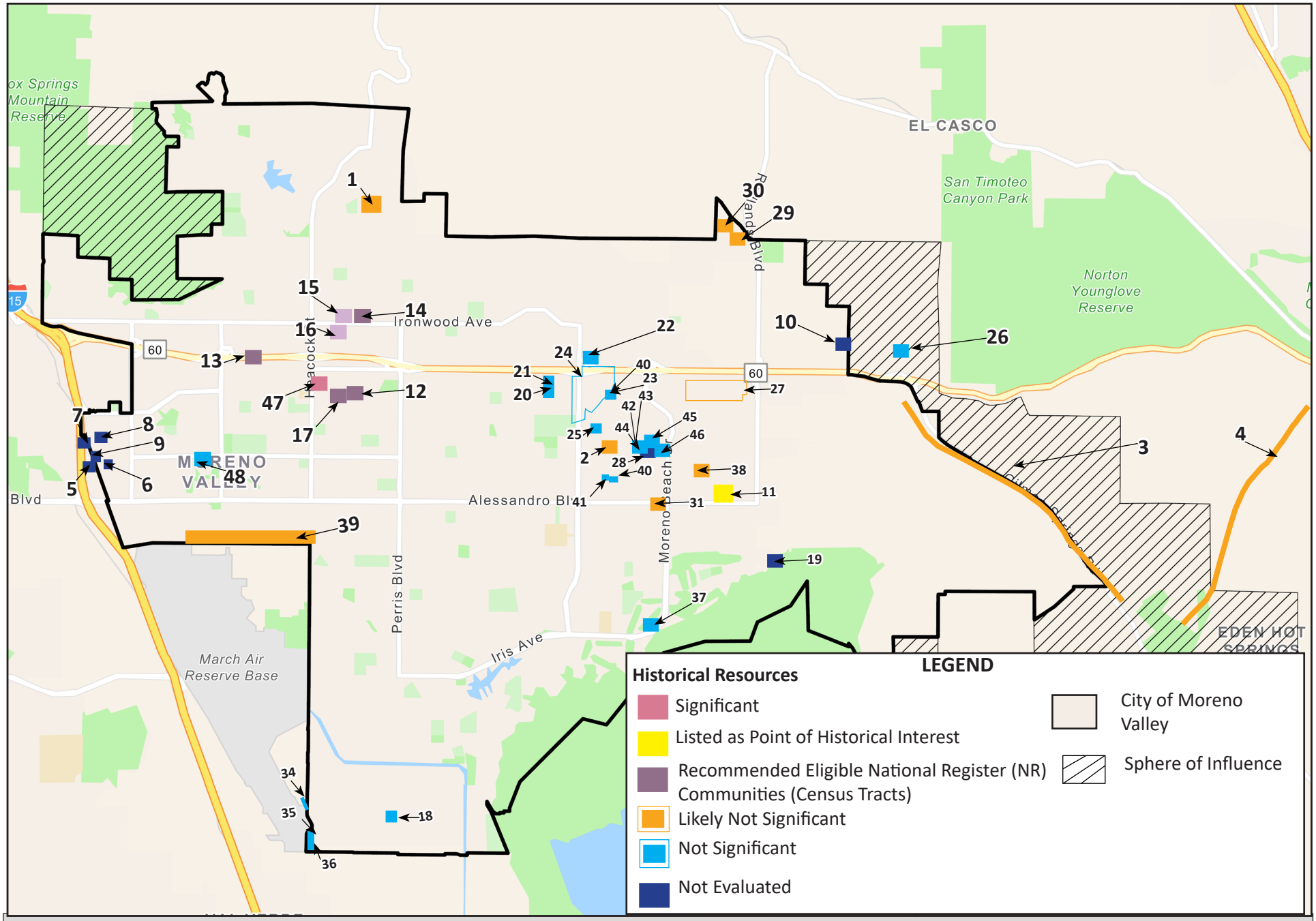


FIGURE 4.5-1: HISTORIC RESOURCES
MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

b. Archaeological Resources

The records search from EIC identified 255 archaeological resources. This included 227 prehistoric sites, such as bedrock milling features, cairns, rock shelters, hearths, lithic scatters, ground stone scatters, ceramic scatters, and rock art. The records search also identified five historic archaeological sites, including trash scatters, two historic grave sites, nine foundations with trash scatters, and twelve multi-component resources (Table 4.5-2). The multi-component archaeological resources (both prehistoric and historic) include bedrock milling features and cisterns, foundations, trash scatters, walls, adobe remnants, or ranch features. The majority of the archaeological resources have not been evaluated for significance under CEQA. Nine archaeological resources have been recommended eligible for the NRHP/CRHR and 40 resources have been recommended not eligible for the NRHP/CRHR. Four resources have been destroyed by construction. The remaining 202 resources have not been evaluated and should be considered potentially significant.

Prehistoric resources tend to be located within the foothills. Based on the results of the record search, ten complexes based on topographically distinct regions within the Planning Area were identified that have the potential to possess archaeological resources. These complexes include Box Springs Mountains, Pigeon Pass Valley, Reche Hills, Moreno Hills, Wolfskill Ranch North, Wolfskill Ranch West, North Badlands, Eden Hot Springs/South Badlands, Moreno School, and Laselle & Brodiaea (Figure 4.5-2). Each of these complexes encompasses at least one habitation site, numerous bedrock milling features, and lithic scatters. Some complexes also include rock art in the form of pictographs and petroglyphs. The prehistoric complex areas have a higher likelihood for additional resources to be found; however, prehistoric resources can exist in other topographic areas that have not been surveyed.

4.5.2 Applicable Regulatory Requirements

4.5.2.1 Federal

a. National Historic Preservation Act of 1966

The National Historic Preservation Act of 1966 established the NRHP as the official federal list of cultural resources that have been nominated by state offices for their historical significance at the local, state, or national level. The NRHP, which is administered by the National Park Service, is “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” Listing in the National Register assists in preservation of historic properties through the following actions: recognition that a property is of significance to the nation, the state, or the community; consideration in planning for federal or federally assisted projects; eligibility for federal tax benefits; consideration in the decision to issue a federal permit; and, qualification for federal assistance for historic preservation grants, when funds are available.

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-000012	CA-RIV000012	Rock art, rock shelter, bedrock milling	Prehistoric Not	Not evaluated	1941 (C. Smith, University of California); 1963 (P. Chace & E. Shepard, San Bernardino County Museum); 1983 (J. Desautels, Scientific Resource Surveys, Inc.); 1987 (Daniel McCarthy, Cultural Resource Facility: California State University, Bakersfield); 1988 (Beth Padon/Pat Jertberg, LSA Associates, Inc.); 1995 (Daniel F. McCarthy, Cultural Resource Facility: California State University, Bakersfield); 2049 (C. Smith, University of California, California Archeological Survey)
P-33-000021	CA-RIV000021	Rock art, bedrock milling	Prehistoric	Not evaluated	1929 (Strong, University of California); 1965 (BB, MK, University of California); 1981 (Arda Haenszel, n/a); 1983 (R. McDonald, Scientific Resource Surveys, Inc.); 1987 (Daniel McCarthy, Archeological Research Unit, U C Riverside); 1989 (K. Owens, R. Olsen, S. Dies, n/a); 1995 (Daniel McCarthy, Cultural Resource Faculty, California State University, Bakersfield)
P-33-000110	CA-RIV000110	Bedrock milling, ground stone	Prehistoric	Not evaluated	1951 (Eberhart, n/a); 1984 (S. Bouscaren etc., UCR ARU)
P-33-00020	CA-RIV000202	Rock art, bedrock milling, lithic, ceramic, ground stone	Prehistoric	Not evaluated	1941 (C. Smith, UCR ARU); 1949 (C. Smith, UCR ARU); 1957 (J. Smith, UCR ARU); 1975 (Hall, UCR ARU); 1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.); 1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.); 1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.); 1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.); 1988 (D. McCarthy, UCR Archaeological Research Unit); 1989 (M. Romano, S. Dies, K. Owens, E. Crabtree, R. Olsen, Applied Earthworks); 1989 (M. Romano, Applied Earthworks)
P-33-000331	CA-RIV000331	Rock art, rock shelter, bedrock milling	Prehistoric	Not evaluated	1966 (MK, UCR); 1987 (Daniel F. McCarthy, ARU UCR); 1989 (S. Dies, K. Owens, R. Olson, n/a); 2000 (James Workman, Lake Perris State Recreational Area)
P-33-000361	CA-RIV000361	Rock art, bedrock milling, lithic, ground stone	Prehistoric	Not evaluated	1959 (EW Shepard, Pacific Coast Archaeological Society, Inc.); 1970 (Turney & Mercer O'Leary, n/a); 1981 (L.L. Bowles, UCR ARU); 1987 (D. F. McCarthy, Archaeological Research Unit, U C Riverside); 2004 (Pat Thomson, n/a); 2010 (Britt W. Wilson, n/a)
P-33-000419	CA-RIV000419	Rock art, bedrock milling	Prehistoric	Not evaluated	1963 (P. Chace & E. Shepard, San Bernardino County Museum); 1963 (P. Chace & E. Shepard, San Bernardino County Museum); 1968 (M. O'Neil, UCR ARU); 1983 (Jackie Desautels, Scientific Resource Surveys);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					1988 (Daniel McCarthy, Archaeological Research Unit, U C Riverside); 1995 (Daniel McCarthy, Cultural Resource Facility, California State University)
P-33-000420	CA-RIV000420	Bedrock milling, lithics, ground stone, trash scatter	Prehistoric, Historic	Not evaluated	1968 (M. O'Neil, UCR ARU); 1983 (Jackie Desautels, Scientific Resource Surveys, Inc.)
P-33-000421	CA-RIV000421	Rock art, bedrock milling	Prehistoric	Not evaluated	1963 (Paul Chace & E. Shepard, San Bernardino County Museum); 1968 (M. O'Neil, UCR ARU); 1983 (Jackie Desautels, Scientific Resource Surveys, Inc.); 1988 (Daniel F. McCarthy, Archaeological Research Unit, U C Riverside.); 1995 (Daniel F. McCarthy, Cultural resource Facility, California State University)
P-33-000464	CA-RIV000464	Rock art, bedrock milling	Prehistoric	Not evaluated	1953 (P. Chace & E. Shepard, UCR ARU); 1983 (Robyn MacDonald, Scientific Resources Survey, Inc.); 1983 (J. Desautels, D. Corey, Scientific Resource Survey, Inc.); 1983 (D. Desautels, Scientific Resources Survey, Inc.); 1983 (Roger Mason, Scientific Resource Surveys, Inc.); 1984 (A. Cody, Scientific Resources Survey, Inc.); 1989 (M. Romano, R. Olson and K. Owens, Metropolitan Water District); 2000 (James Workman, UCR ARU)
P-33-000497	CA-RIV000497	Bedrock milling, ceramic, adobe, trash scatter	Prehistoric, Historic	Not evaluated	1971 (T. O'Brian, UCR); 1976 (H. Wells, T. Snyder, UCR); 1987 (Daniel F. McCarthy, UCR ARU)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-000530	CA-RIV000530	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR ARU); 1983 (Jackie Desautels, Scientific Resources Surveys, Inc.); 1988 (Beth Padon/Pat Jertberg, LSA Associates, Inc.)
P-33-000531	CA-RIV000531	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (J. Desautels, Scientific Resource Surveys, Inc.); 1988 (Beth Padon/ Pat Jertberg, LSA Associates)
P-33-000532	CA-RIV000532	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU)
P-33-000533	CA-RIV000533	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys, Inc.)
P-33-000534	CA-RIV000534	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, ARU-UCR); 1983 (Don Carey, Scientific Resource Surveys, Inc.)
P-33-000535	CA-RIV000535	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys, Inc.)
P-33-000536	CA-RIV000536	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys)
P-33-000537	CA-RIV000537	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys)
P-33-000538	CA-RIV000538	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys)
P-33-000539	CA-RIV000539	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU)
P-33-000540	CA-RIV000540	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, n/a); 1983 (Don Carey, Scientific Resource Surveys)
P-33-000541	CA-RIV000541	Bedrock milling	Prehistoric	Likely not significant	1963 (P. Chace & E. Shepard, San Bernardino County Museum); 1972 (Terry Ambrose, UCR-ARU);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					1983 (Don Carey, Scientific Resource Surveys)
P-33-000542	CA-RIV000542	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys.)
P-33-000543	CA-RIV000543	Bedrock milling	Prehistoric	Likely not significant	1972 (Terry Ambrose, UCR-ARU); 1983 (Don Carey, Scientific Resource Surveys)
P-33-000608	CA-RIV000608	Bedrock milling	Prehistoric	Likely not significant	1973 (P. Wilke, San Bernardino County Museum); 1983 (Robyn MacDonald, Scientific Resource Surveys, Inc.); 2010 (Ecorp Consulting, Inc., Ecorp Consulting, Inc.)
P-33-000609	CA-RIV000609	Rock alignment, bedrock milling	Prehistoric	Not evaluated	1973 (P. Wilke, San Bernardino County Museum); 1983 (R. MacDonald, Scientific Resource Surveys, Inc.)
P-33-000610	CA-RIV000610	Bedrock milling	Prehistoric	Likely not significant	1973 (P. Wilke, San Bernardino County Museum); 1983 (R. MacDonald, Scientific Resource Surveys, Inc.); 2006 (Michael Dice, Michael Brandman Associates)
P-33-000683	CA-RIV000683	Bedrock milling	Prehistoric	Likely not significant	1982 (Lerch, M. K., San Bernardino County Museum); 2008 (McDougall, D.; J. George; and Gothar, B., Applied EarthWorks, Inc.)
P-33-000715	CA-RIV000715	Bedrock milling	Prehistoric	Likely not significant	1963 (P. Chace & E. Shepard, San Bernardino County Museum); 1983 (Jackie Desautels, Scientific Resource Surveys, Inc.); 1988 (Beth Padon/ Pat Jertberg, LSA Associates, Inc.)
P-33-000857	CA-RIV000857	Bedrock milling, lithics	Prehistoric	Likely not significant	1975 (R. Weaver, UCR ARU);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					1987 (C. Prior, M. Conroy, B. Neiditch, ARU, UCR); 2013 (Daniel Ballester and Daniel Perez, CRM TECH)
P-33-000860	CA-RIV000860	Bedrock milling	Prehistoric	Not significant	1976 (D. Lipp & R. Weaver, UCR ARU); 1987 (Barry R. Neiditch, Archaeological Research Unit, U C Riverside); 2006 (Archaeological Staff, Michael Brandman Associates)
P-33-001019	CA-RIV001019	Lithic, ground stone	Prehistoric	Not evaluated	1963 (A.M. Haemslel, San Bernardino County Museum); 1980 (Jean A. Saepasl, UCR ARU)
P-33-001020	CA-RIV001020	Bedrock milling, ground stone	Prehistoric	Not evaluated	1963 (G. Smith, San Bernardino County Museum)
P-33-001063	CA-RIV001063	Bedrock milling	Prehistoric	Likely not significant	1976 (Eastvold, UCR ARU); 1987 (P. Parr, K. Swope, Archaeological Research Unit, U C Riverside)
P-33-001064	CA-RIV001064	Bedrock milling	Prehistoric	Not evaluated	1976 (Eastvold, UCR ARU); 1987 (R. E. Parr, B. Arkush, Archaeological Research Center, U C Riverside); 2008 (Jeanette A. McKenna, McKenna et al.)
P-33-001080	CA-RIV001080	Lithic, ground stone	Prehistoric	Not evaluated	1976 (D. Bell, UCR ARU); 1981 (L.L. Bowles, UCR ARU)
P-33-001703	CA-RIV001703	Bedrock milling, adobe	Prehistoric, Historic	Not evaluated	1979 (C.E. Drover, n/a)
P-33-001704	CA-RIV001704	Adobe, trash scatter, ground stone	Prehistoric, Historic	Likely not significant	1979 (C.E. Drover, n/a)
P-33-001976	CA-RIV001976	Lithic scatter, ground stone	Prehistoric	Likely not significant	1980 (Jean A. Salpas, UCR ARU)
P-33-001977	CA-RIV001977	Bedrock milling feature	Prehistoric	Likely not significant	1980 (Jean A. Salpas, UCR ARU)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-002025	CA-RIV002025	Foundation; Trash scatter; Hearths; Ancillary building; Farm; Adobe building	Historic	Significant	1980 (C. Colquehoun, Archaeological Associates, Costa Mesa, CA); 1991 (Laurie S. White, Archaeological Associates, Sun City, CA); 2003 (David M. Smith and Ron Norton, The Kieth Companies, Inc., Irvine, CA); 2007 (Toenjes, Julianne, Sarah Mattiussi and Rachael Nixon, Stantec, Palm Desert, CA)
P-33-002185	CA-RIV002185	Bedrock milling feature	Prehistoric	Likely not significant	1981 (C.E. Drover and E. Drover, UCR ARU)
P-33-002236	CA-RIV002236	Lithic scatter, ground stone	Prehistoric	Likely not significant	1981 (L.L. Bowles, UCR ARU); 2006 (Kristie R. Blevins, L&L Archaeologist)
P-33-002531	CA-RIV002531	Bedrock milling feature	Prehistoric	Likely not significant	1982 (D. Jenkins, n/a)
P-33-002587	CA-RIV002587	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Van Horn and Murray, Archaeological Associates, Costa Mesa, CA)
P-33-002588	CA-RIV002588	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Murray and Van Horn, Archaeological Associates, Costa Mesa, CA)
P-33-002589	CA-RIV002589	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Murray and Van Horn, Archaeological Associates, Costa Mesa, CA)
P-33-002590	CA-RIV002590	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Van Horn and Murray, Archaeological Associates, Costa Mesa, CA)
P-33-002734	CA-RIV002734	Bedrock milling feature	Prehistoric	Likely not significant	1983 (C. Rector and D. Pinto, UCR ARU)
P-33-002752	CA-RIV002752	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Jean A. Salpas, UCR ARU)
P-33-002763	CA-RIV002763	Bedrock milling feature	Prehistoric	Likely not significant	1984 (K.J. Peter and D. Desautels, Scientific Resource Surveys, Inc., Huntington Beach, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-002775	CA-RIV002775	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Jean A. Salpas, UCR ARU); 1990 (Brook S. Arkbush, Archaeological Research Unit, UC Riverside, Riverside, CA)
P-33-002776	CA-RIV002776	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Jean A. Salpas, UCR ARU); 1990 (Brooke S. Arkbush, Archaeological Research Unit, UC Riverside, Riverside, CA)
P-33-002777	CA-RIV002777	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Jean A. Salpas, UCR ARU); 1990 (Brooke S. Arkbush, Archaeological Research Unit, UC Riverside, Riverside, CA)
P-33-002817	CA-RIV002817	Lithic scatter, ground stone	Prehistoric	Not evaluated	1984 (S. Bouscaren etc., UCR ARU)
P-33-002818	CA-RIV002818	Lithic scatter, ground stone	Prehistoric	Not evaluated	1984 (S. Bousacaren etc., UCR ARU)
P-33-002819	CA-RIV002819	Lithic scatter, ground stone	Prehistoric	Not evaluated	1984 (S. Bouscaren, UCR ARU)
P-33-002829	CA-RIV002829	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Ann Cody, Scientific Resource Surveys, Huntington Beach, CA)
P-33-002863	CA-RIV002863	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR ARU); 2017 (H. Murphy, K. Stankowski, R. Bolger, M. Jorgensen, D. Faith, Tierra Environmental Services, Inc.)
P-33-002864	CA-RIV002864	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR); 2017 (H. Murphy, K. Stankowski, B. Bolger M. Jorgensen, D. Faith, Tierra Environmental Services)
P-33-002865	CA-RIV002865	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, n/a); 2017 (H. Murphy, K. Stankowski, M. Jorgensen, D. Faith, Tierra Environmental Services, Inc.)
P-33-002866	CA-RIV002866	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-002867	CA-RIV002867	Bedrock milling feature; Rock shelter	Prehistoric	Likely not significant	1983 (Thomas Banks, Scientific Resource Surveys, Huntington Beach, CA); 1989 (K. Owens, R. Olson and S. Dies, n/a)
P-33-002868	CA-RIV002868	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, ARU)
P-33-002869	CA-RIV002869	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR ARU)
P-33-002894	CA-RIV002894	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR)
P-33-002895	CA-RIV002895	Lithic scatter; Bedrock milling feature; Rock feature; Rock shelter	Prehistoric	Not evaluated	1984 (C.E. Drover, UCR); 2006 (Cary D. Cotterman, ECORP Consulting Inc., Redlands, CA)
P-33-002896	CA-RIV002896	Bedrock milling feature	Prehistoric	Likely not significant	1984 (C.E. Drover, UCR); 2006 (ECORP Consulting, Inc., ECORP Consulting, Inc.)
P-33-002897	CA-RIV002897	Bedrock milling feature	Prehistoric	Destroyed	1984 (C.E. Drover, UCR); 2006 (ECORP Consulting, Inc., ECORP Consulting, Inc.)
P-33-002950	CA-RIV002950	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1989 (S.A. Williams and E. Crabtree, n/a)
P-33-002951	CA-RIV002951	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 2010 (Ecorp Consulting, Inc., Ecorp Consulting, Inc.)
P-33-002952	CA-RIV002952	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002953	CA-RIV002953	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002954	CA-RIV002954	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002955	CA-RIV-002955	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-002956	CA-RIV-002956	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002957	CA-RIV-002957	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1989 (S. Dies, R. Olson and K. Owens, n/a)
P-33-002958	CA-RIV-002958	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1989 (K. Owens, S. Dies and R. Olson, n/a)
P-33-002959	CA-RIV-002959	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002960	CA-RIV-002960	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002961	CA-RIV-002961	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002962	CA-RIV-002962	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002963	CA-RIV-002963	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002964	CA-RIV-002964	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002965	CA-RIV-002965	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1989 (K. Owens, R. Olson and S. Dies, n/a)
P-33-002967	CA-RIV-002967	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA)
P-33-002968	CA-RIV-002968	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas J. Banks, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1989 (K. Owens, S. Dies and R. Olson, n/a)
P-33-002969	CA-RIV-002969	Rock feature	Prehistoric	Not evaluated	1983 (Vicki Mason, Scientific Resource Surveys, Inc., Huntington Beach, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-002993	CA-RIV-002993	Bedrock milling feature	Prehistoric	Likely not significant	1983 (Thomas Banks, Scientific Resource Survey, Huntington Beach, CA)
P-33-002994	CA-RIV-002994	Bedrock milling feature	Prehistoric	Likely not significant	1984 (Roger Mason, Scientific Resource Surveys, Huntington Beach, CA)
P-33-002995	CA-RIV-002995	Bedrock milling feature; Rock shelter	Prehistoric	Not evaluated	1983 (Roger Mason, Scientific Resource Surveys, Huntington Beach, CA)
P-33-003057	CA-RIV-003057	Bedrock milling feature	Prehistoric	Likely not significant	1986 (Philip de Barros, UCLA/Golden West Col, Stanton, CA)
P-33-003067	CA-RIV-003067	Bedrock milling feature	Prehistoric	Likely not significant; destroyed?	1985 (M.L. Hemphill, Scientific Resource Surveys, Inc., Huntington Beach, CA); 1990 (C.E. Drover and D.M. Smith, Christopher Drover, Santa Ana, CA); 2004 (P. Fulton and N. Lawson, LSA Associates, Inc., Riverside, CA); 2006 (V. Austerman, n/a)
P-33-003088	CA-RIV-003088	Bedrock milling feature	Prehistoric	Likely not significant	1986 (C.E. Drover, UCR)
P-33-003089	CA-RIV-003089	Bedrock milling feature	Prehistoric	Likely not significant	1986 (C.E. Drover, n/a)
P-33-003133	CA-RIV-003133	Bedrock milling feature	Prehistoric	Likely not significant	1986 (Daniel F. McCarthy, Archaeological Research Unit, UC Riverside, CA)
P-33-003134	CA-RIV-003134	Bedrock milling feature	Prehistoric	Likely not significant	1986 (Daniel F. McCarthy, Archaeological Research Unit, UC Riverside, CA)
P-33-003135	CA-RIV-003135	Bedrock milling feature	Prehistoric	Likely not significant	1986 (Daniel F. McCarthy, Archaeological Research Unit, UC Riverside, CA)
P-33-003159	CA-RIV-003159	Bedrock milling feature	Prehistoric	Likely not significant	1987 (C. Prior, M. Conroy and B. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2013 (Daniel Ballester and Daniel Perez, CRM TECH); 2015 (Daniel Ballester, CRM TECH)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-003223	CA-RIV-003223	Bedrock milling feature	Prehistoric	Not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA); 1990 (Letter: Kathryn Gualtieri, Office of Historic Preservation, Sacramento, CA); 2001 (Kay White Email to: Joseph McDole, EIC); 2001 (Fax: Joseph McDole, Office of Historic Preservation, Sacramento, CA)
P-33-003224	CA-RIV-003224	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003225	CA-RIV-003225	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003226	CA-RIV-003226	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003227	CA-RIV-003227	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003228	CA-RIV-003228	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA); 1993 (Juanita R. Shinn and Joan Brown, RMW Paleo Associates, Mission Viejo, CA)
P-33-003229	CA-RIV-003229	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003230	CA-RIV-003230	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003231	CA-RIV-003231	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003232	CA-RIV-003232	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003233	CA-RIV-003233	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003234	CA-RIV-003234	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-003235	CA-RIV-003235	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003236	CA-RIV-003236	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003237	CA-RIV-003237	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003238	CA-RIV-003238	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA); 2006 (M. Dice, Michael Brandman Associates, Irvine, CA)
P-33-003239	CA-RIV-003239	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003240	CA-RIV-003240	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003241	CA-RIV-003241	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003242	CA-RIV-003242	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003243	CA-RIV-003243	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003244	CA-RIV-003244	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeology Research Unit, UC Riverside, CA)
P-33-003245	CA-RIV-003245/H	Bedrock milling feature; Foundations; Walls	Prehistoric, Historic	Not evaluated	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA); 1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, Temecula, CA); 2002 (Daniel Ballester, CRM TECH)
P-33-003246	CA-RIV-003246	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto, Archaeological Research Unit, UC Riverside, CA)
P-33-003247	CA-RIV-003247/H	Trash scatter; Adobe structure	Historic	Not evaluated	1987 (Karen K. Swope, Archaeological Research Unit, UC Riverside, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-003250	CA-RIV-003250	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and K. Swope, Archaeological Research Unit, UC Riverside, CA)
P-33-003251	CA-RIV-003251	Lithic scatter; Bedrock milling feature; Dam	Prehistoric, Historic	Not evaluated	1987 (R. Parr, K. Swope, V. deMunck and L. Broomhall, Archaeological Research Unit, UC Riverside, CA)
P-33-003252	CA-RIV-003252	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and K. Swope, Archaeological Research Unit, UC Riverside, CA)
P-33-003253	CA-RIV-003253/H	Bedrock milling feature; Trash scatter	Prehistoric, Historic	Not evaluated	1987 (R. Parr, K. Swope and V. deMunck, Archaeological Research Unit, UC Riverside, CA)
P-33-003254	CA-RIV-003254/H	Bedrock milling feature; Cistern	Prehistoric, Historic	Likely not significant	1987 (R. Parr, K. Swope and V. deMunck, Archaeological Research Unit, UC Riverside, CA)
P-33-003255	CA-RIV-003255	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto and J. Schneider, Archaeological Research Unit, UC Riverside, CA)
P-33-003256	CA-RIV-003256	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto and J. Schneider, Archaeological Research Unit, UC Riverside, CA)
P-33-003257	CA-RIV-003257	Bedrock milling feature	Prehistoric	Likely not significant	1987 (D. Pinto and J. Schneider, Archaeological Research Unit, UC Riverside, CA)
P-33-003258	CA-RIV-003258	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, Archaeological Research Unit, UC Riverside, CA)
P-33-003259	CA-RIV-003259	Bedrock milling feature	Prehistoric	Not evaluated	1987 (R. Parr, D. Pinto, K. Swope and V. deMunck, Archaeological Research Unit, UC Riverside, CA)
P-33-003260	CA-RIV-003260	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, Archaeological Research Unit, UC Riverside, CA)
P-33-003261	CA-RIV-003261	Bedrock milling feature; Farm/ ranch	Prehistoric, Historic	Not evaluated	1987 (R. Parr, K. Swope and B. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2009 (Jeanette A McKenna, McKenna et al.)
P-33-003262	CA-RIV-003262	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and C. Prior, Archaeological Research Unit, UC Riverside, CA)
P-33-003263	CA-RIV-003263	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, K. Swope, R. Yohe and C. Prior, Archaeological Research Unit, UC Riverside, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-003264	CA-RIV-003264	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, K. Swope, R. Yohe and C. Prior, Archaeological Research Unit, UC Riverside, CA)
P-33-003265	CA-RIV-003265	Bedrock milling feature	Prehistoric	Likely not significant	1987 (K. Swope, R. Yohe and C. Prior, Archaeological Research Unit, UC Riverside, CA)
P-33-003266	CA-RIV-003266	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and B. Neiditch, Archaeological Research Unit, UC Riverside, CA)
P-33-003267	CA-RIV-003267	Bedrock milling feature; Rock shelter	Prehistoric	Not evaluated	1987 (R. Parr, R. Yohe, B. Neiditch, B. Arkush and D. Everson, Archaeological Research Unit, UC Riverside, CA)
P-33-003268	CA-RIV-003268	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, R. Yohe, B. Arkush, B. Neiditch and D. Everson, Archaeological Research Unit, UC Riverside, CA)
P-33-003269	CA-RIV-003269	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, R. Yohe, B. Arkush, B. Neiditch and D. Everson, Archaeological Research Unit, UC Riverside, CA)
P-33-003270	CA-RIV-003270	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and D. Everson, Archaeological Research Unit, UC Riverside, CA)
P-33-003271	CA-RIV-003271	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, K. Swope and K. Halloran, Archaeological Research Unit, UC Riverside, CA); 2006 (Jeanette A. McKenna, McKenna et al., Whittier, CA)
P-33-003273	CA-RIV-003273	Bedrock milling feature	Prehistoric	Not evaluated	1987 (R. Parr, K. Swope and K. Halloran, Archaeological Research Unit, UC Riverside, CA)
P-33-003304	CA-RIV-003304	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr and B. Arkush, Archaeological Research Unit, UC Riverside, CA)
P-33-003305	CA-RIV003305	Bedrock milling feature	Prehistoric	Likely not significant	1987 (R. Parr, Archaeological Research Unit, UC Riverside, CA)
P-33-003306	CA-RIV-003306	Bedrock milling feature	Prehistoric	Not evaluated	1987 (R. Parr and B. Arkush, Archaeological Research Unit, UC Riverside, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-003307	CA-RIV-003307	Bedrock milling feature	Prehistoric	Not significant	1987 (K.J. Peter and L.A. Carbone, Scientific Resourse Surveys, Inc., Huntington Beach, CA)
P-33-003323	CA-RIV-003323	Bedrock milling feature	Prehistoric	Not evaluated	1987 (Michael Sampson, CA Dept of Parks and Recreation, Southern Region Headquarters, San Diego, CA)
P-33-003340	CA-RIV-003340	Lithic scatter, ground stone	Prehistoric	Likely not significant	1987 (Joan Brown, Blanch Schmitz and Ronald M. Bissell, RMW Paleo Associates, Mission Viejo, CA)
P-33-003341	CA-RIV-003341	Bedrock milling feature	Prehistoric	Not evaluated	1987 (C. Prior, M. Conroy and B. Neiditch, Archaeological Research Unit, UC Riverside, CA)
P-33-003342	CA-RIV-003342	Bedrock milling feature	Prehistoric	Destroyed	1987 (Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2013 (Daniel Ballester and Daniel Perez, CRM TECH)
P-33-003343	CA-RIV-003343	Bedrock milling feature	Prehistoric	Not significant	1987 (Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2006 (M. Dice, Michael Brandman Associates, Irvine, CA)
P-33-003344	CA-RIV-003344	Bedrock milling feature	Prehistoric	Not significant	1987 (Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2006 (M. Dice, Michael Brandman Associates, Irvine, CA)
P-33-003345	CA-RIV-003345	Bedrock milling feature	Prehistoric	Not significant	1987 (Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA); 2006 (M. Dice, Michael Brandman Associates, Irvine, CA)
P-33-003346	CA-RIV-003346	Lithic scatter; Bedrock milling feature	Prehistoric	Significant	1987 (Daniel F. McCarthy and Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA); 1990 (Brooke S. Arkush, Archaeological Research Unit, UC Riverside, CA); 2006 (M. Dice, Michael Brandman Associates, Irvine, CA)
P-33-003347	CA-RIV-003347	Lithic scatter; Bedrock milling feature	Prehistoric	Not evaluated	1987 (Daniel F. McCarthy and Barry R. Neiditch, Archaeological Research Unit, UC Riverside, CA);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					1990 (Brooke S. Arkush, Archaeological Research Unit, UC Riverside, CA); 2011 (Archaeological Staff, Michael Brandman Associates)
P-33-003959	CA-RIV-003959	Bedrock milling feature	Prehistoric	Likely not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover); 2004 (P. Fulton/N. Lawson, LSA Associates, Inc.)
P-33-003960	CA-RIV-003960	Bedrock milling feature	Prehistoric	Likely not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover)
P-33-003961	CA-RIV-003961	Bedrock milling feature	Prehistoric	Likely not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover)
P-33-003962	CA-RIV-003962	Bedrock milling feature	Prehistoric	Likely not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover); 2004 (P. Fulton/N. Lawson, LSA Associates, Inc.)
P-33-003963	CA-RIV-003963	Bedrock milling feature	Prehistoric	Not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover); 2004 (P. Fulton/N. Lawson, LSA Associates, Inc.)
P-33-003964	CA-RIV-003964	Bedrock milling feature	Prehistoric	Likely not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover)
P-33-003965	CA-RIV-003965	Bedrock milling feature	Prehistoric	Not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover); 2004 (P. Fulton/N. Lawson, LSA Associates, Inc.)
P-33-003966	CA-RIV-003966	Bedrock milling feature	Prehistoric	Not significant	1990 (C. E. Drover and D. M. Smith, Christopher Drover); 2004 (P. Fulton/N. Lawson, LSA Associates, Inc.)
P-33-004181	CA-RIV-004181	Bedrock milling feature	Prehistoric	Likely not significant	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula CA 92390)
P-33-004183	CA-RIV-004183	Bedrock milling feature	Prehistoric	Not evaluated	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula CA 92390);

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
					2002 (Daniel Ballester, CRM TECH)
P-33-004184	CA-RIV-004184	Bedrock milling feature	Prehistoric	Not evaluated	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula CA 92390); 2002 (Daniel Ballester, CRM TECH)
P-33-004185	CA-RIV-004185	Bedrock milling feature	Prehistoric	Not evaluated	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula CA, 92390); 2002 (Daniel Ballester, CRM TECH)
P-33-004186	CA-RIV-004186	Bedrock milling feature	Prehistoric	Not evaluated	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula, CA 92390); 2002 (Daniel Ballester, CRM TECH)
P-33-004187	CA-RIV-004187	Bedrock milling feature	Prehistoric	Likely not significant	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula, CA 92390)
P-33-004188	CA-RIV-004188	Bedrock milling feature	Prehistoric	Not evaluated	1991 (J. Keller, Jean A. Keller, Consulting Archaeologist, 27475 Ynez Road, No. 450, Temecula, CA 92390); 2002 (Daniel Ballester, CRM TECH)
P-33-004189	CA-RIV-004189	Bedrock milling feature	Prehistoric	Likely not significant	1991 (J. Keller, Jean A. Keller, Consulting Arcaeologist, 27475 Ynez Road, No. 450, Temecula CA 92390)
P-33-004201	CA-RIV-004201	Foundation; Trash scatter	Historic	Not evaluated	1990 (James J. Schmidt and Gwendolyn Romani, Greenwood and Associates, 725 Jacon Way, 725 Jacon Way, Pacific Palisades, CA 90272, (213) 454-3091)
P-33-004206	CA-RIV-004206	Bedrock milling feature	Prehistoric	Likely not significant	1990 (James J. Schmidt, June Schmidt, Jeanne Binning, and Tricia Webb, Greenwood and Associates, 725 Jacon Way, 725 Jacon Way, Pacific Palisades, CA 90272 (213) 454-3091)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-004210	CA-RIV-004210	Foundation; Trash scatter	Historic	Not evaluated	1990 (James J. Schmidt, and Gwendolyn Romani, Greenwood and Associates, 725 Jacon Way, Pacific Palisades, CA 90272 (213) 454-3091)
P-33-004212	CA-RIV-004212	Lithic scatter, ground stone	Prehistoric	Likely not significant	1990 (James J. Schmidt, Kathy VanderVeen, James Kenney, and Lisa LeCount, Greenwood and Associates, 725 Jacon Way, Pacific Palisades, CA 90272 (213) 454-3091)
P-33-004286	CA-RIV-004286	Grave; Physically overlaps or intersects 33-028830 and 33 013710	Historic	Destroyed	1979 (M.A. Brown, n/a)
P-33-004924	CA-RIV-004924	Bedrock milling feature	Prehistoric	Likely not significant	1992 (M. Hogan, UC Riverside Archaeological Research Unit)
P-33-004925	CA-RIV-004925	Bedrock milling feature	Prehistoric	Likely not significant	1992 (M. Hogan, UC Riverside Archaeological Research Unit)
P-33-007910	CA-RIV-005862H	Foundations; Privy and Trash scatter; Cistern; Standing structures;	Historic	Not evaluated	1995 (James J. Schmidt and Gwendolyn Romani, Greenwood and Associates)
P-33-008168	CA-RIV-006065	Lithic scatter; Faunal remains	Prehistoric	Significant	1998 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)
P-33-008169	CA-RIV-006066	Lithic scatter; Faunal remains	Prehistoric	Significant	1998 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)
P-33-008170	CA-RIV-006067	Lithic scatter	Prehistoric	Significant	1998 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)
P-33-008171	CA-RIV-006068	Lithic scatter, ground stone; Faunal remains	Prehistoric	Significant	1998 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)
P-33-008266	CA-RIV-006084	Lithic scatter, ground stone; Faunal remains	Prehistoric	Significant	1998 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)
P-33-008709	CA-RIV-006200	Hearths/ pits	Prehistoric	Significant	1999 (M. Horne, Applied EarthWorks, Inc., Hemet, CA)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-011606	CA-RIV-006914	Bedrock milling feature	Prehistoric	Likely not significant	2002 (Riordan L. Goodwin, LSA Associates)
P-33-011621		Foundation; Walls; Standing structures; Farm	Historic	Not evaluated	1980 (Terence N. D'Altroy, Environmental Resources Group)
P-33-011622		Isolate - biface midsection	Prehistoric	Not significant	1980 (Terence N. D'Altroy, Environmental Resources Group)
P-33-012118	CA-RIV006943/H	Bedrock milling feature; Foundations; Trash scatter; Road; Walls	Prehistoric, Historic	Significant	2002 (Daniel Ballester, CRM TECH)
P-33-012635		Bedrock milling feature	Prehistoric	Likely not significant	1984 (S. Bouscaren etc., ARU, UC Riverside)
P-33-012636		Bedrock milling feature	Prehistoric	Likely not significant	1984 (S. Bouscaren etc., ARU, UC Riverside)
P-33-012637		Bedrock milling feature	Prehistoric	Likely not significant	1984 (S. Bouscaren etc., ARU, UC Riverside)
P-33-012638		Bedrock milling feature	Prehistoric	Likely not significant	1984 (S. Bouscaren Etc., ARU, UC Riverside)
P-33-012817		Bedrock milling feature	Prehistoric	Not significant	1981 (L.L. Bowles, n/a); 2006 (Kristie R. Blevins, L&L Environmental, Inc.)
P-33-012933	CA-RIV-007172	Lithic scatter, ground stone; Habitation debris; Other	Prehistoric	Not NR eligible	2003 (Smith, David M., and Ron Norton, The Keith Companies, Inc.); 2006 (Toenjes, Julianne, Sarah Mattiussi, and Rachael Nixon, Stantec); 2007 (Toenjes, Julianne, Sarah Mattiussi, and Rachael Nixon, Stantec)
P-33-012934		Isolate - mano	Prehistoric	Not significant	2003 (Smith, David M., and Ron Norton, The Keith Companie, Inc.); 2007 (Toenjes, Julianne and Sarah Mattiussi, Stantec Consulting)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-012935		Isolate - core	Prehistoric	Not significant	2003 (Smith, David M., and Ron Norton, The Keith Companies, Inc.); 2007 (Toenjes, Julianne and Sarah Mattiussi, Stantec Consulting)
P-33-012936		Isolate - mano	Prehistoric	Not significant	2003 (Smith, David M., and Ron Norton, The Keith Companies); 2007 (Julianne Toenjes and Sarah Mattiussi, Stantec)
P-33-012937	CA-RIV-007173	Lithic scatter, ground stone	Prehistoric	Not significant	2003 (Smith, David M., and Ron Norton, The Keith Companies, Inc.); 2006 (Toenjes, Julianne, Sarah Mattiussi, and Rachael Nixon, Stantec)
P-33-012938		Isolate - mano	Prehistoric	Not significant	2003 (Smith, David M., and Ron Norton, The Keith Companies); 2007 (Toenjes, Julianne, Stantec Consulting)
P-33-013110	CA-RIV-007307	Bedrock milling feature; Cairns	Prehistoric	Not evaluated	1983 (Thomas Banks, Scientific Resource Surveys)
P-33-013607		Isolate: mano	Prehistoric	Not significant	1991 (Jean A. Keller, Jean A. Keller, Consulting Archaeologist)
P-33-013710		Grave	Historic	Destroyed	1979 (Brown, M.A., n/a)
P-33-013711		Isolate - mano	Prehistoric	Not significant	1974 (Jefferson, P. and H. Clough, n/a)
P-33-013825		Isolate - metate	Prehistoric	Not significant	2004 (Harris, N., Harris Arch Cons.)
P-33-013848		Isolate - metate	Prehistoric	Not significant	2004 (Smith, David M., The Keith Companies, Inc); 2007 (Toenjes, Julianne and Sarah Mattiussi, Stantec Consulting)
P-33-013849		Isolate - mano	Prehistoric	Not significant	2004 (Smith, David M., The Keith Companies, Inc.); 2007 (Toenjes, Julianne and Sarah Mattiussi, Stantec Consulting)
P-33-013850		Isolate - flake	Prehistoric	Not significant	2004 (Smith, David M., The Keith Companies, Inc); 2007 (Toenjes, Julianne and Sarah Mattiussi, Stantec Consulting)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-015016		Isolate - mano	Prehistoric	Not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015017	CA-RIV-007981	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015018	CA-RIV-007982	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015019	CA-RIV-007983	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015020	CA-RIV-007984	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015021	CA-RIV-007985	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015022	CA-RIV-007986	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015023	CA-RIV-007987	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015024	CA-RIV-007988	Trash scatter	Historic	Not significant	2005 (Brunzell, David and Rory Goodwin, LSA Associates, Inc.)
P-33-015028	CA-RIV-007992	Trash scatter	Historic	Not significant	2004 (Goodwin, Riordan, LSA Associates, Inc.)
P-33-015031	CA-RIV-007995	Trash scatter	Historic	Not significant	2004 (Goodwin, Riordan, LSA Associates, Inc.)
P-33-015032	CA-RIV-007996	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015045	CA-RIV-008006	Bedrock milling feature	Prehistoric	Not significant	2006 (Dice, M., Michael Brandman Associates)
P-33-015046	CA-RIV-008007	Bedrock milling feature	Prehistoric	Not significant	2006 (Dice, Michael, Michael Brandman Associates)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-015147	CA-RIV-008056	Bedrock milling feature	Prehistoric	Likely not significant	2006 (Moslak, Ken, ASM Affiliates, Inc.); 2017 (H. Murphy, K. Stankowski, M. Jorgensen, D. Faith, Tierra Environmental Services)
P-33-015148		Bedrock milling feature	Prehistoric	Likely not significant	2006 (Moslak, Ken, ASM Affiliates, Inc.); 2017 (H. Murphy, K. Stankowski, B. Bolger, M. Jorgensen and D. Faith, Tierra Environmental Services)
P-33-015149		Bedrock milling feature	Prehistoric	Likely not significant	2006 (Moslak, Ken, ASM Affiliates, Inc.); 2017 (H. Murphy, K. Stankowski, B. Bolger, Jm. Jorgensen and D. Faith, Tierra Environmental Services)
P-33-015150		Bedrock milling feature	Prehistoric	Likely not significant	2006 (Moslak, Ken, ASM Affiliates, Inc.); 2017 (H. Murphy, K. Stankowski, B. Bolger, M. Jorgensen and D. Faith, Tierra Environmental Servicse)
P-33-015301		Isolate - pestle	Prehistoric	Not significant	2005 (Chandler, Evelyn, ECORP Consulting, Inc.)
P-33-015320	CA-RIV-008088	Bedrock milling feature	Prehistoric	Likely not significant	2004 (Fulton, P. and N. Lawson, LSA Associates, Inc.)
P-33-015454	CA-RIV-008149	Foundation; Trash scatter; Wells/ cistern (septic tank)	Historic	Not evaluated	2006 (John Stephen Alexandrowicz, Archaeological Consulting Services)
P-33-015648		Isolate - metate	Prehistoric	Not significant	2006 (J. Sanka, Michael Brandman Associates)
P-33-015675	CA-RIV-008168	Foundations; Trash scatter; Water conveyance system	Historic	Likely not significant	2006 (J. Sanka, Michael Brandman Associates)
P-33-015937	CA-RIV-008274	Bedrock milling feature; Foundations; Trash scatter; Wells/ cisterns	Prehistoric, Historic	Not evaluated	2007 (Ballester, Daniel, CRM TECH)

Table 4.5-2
List of Archaeological Resources and their Eligibility

Primary Number	Trinomial Number	Resource Type	Age	Eligibility	Recording Event
P-33-015967		Isolate - mano	Prehistoric	Not significant	2007 (Daniel Ballester, CRM TECH)

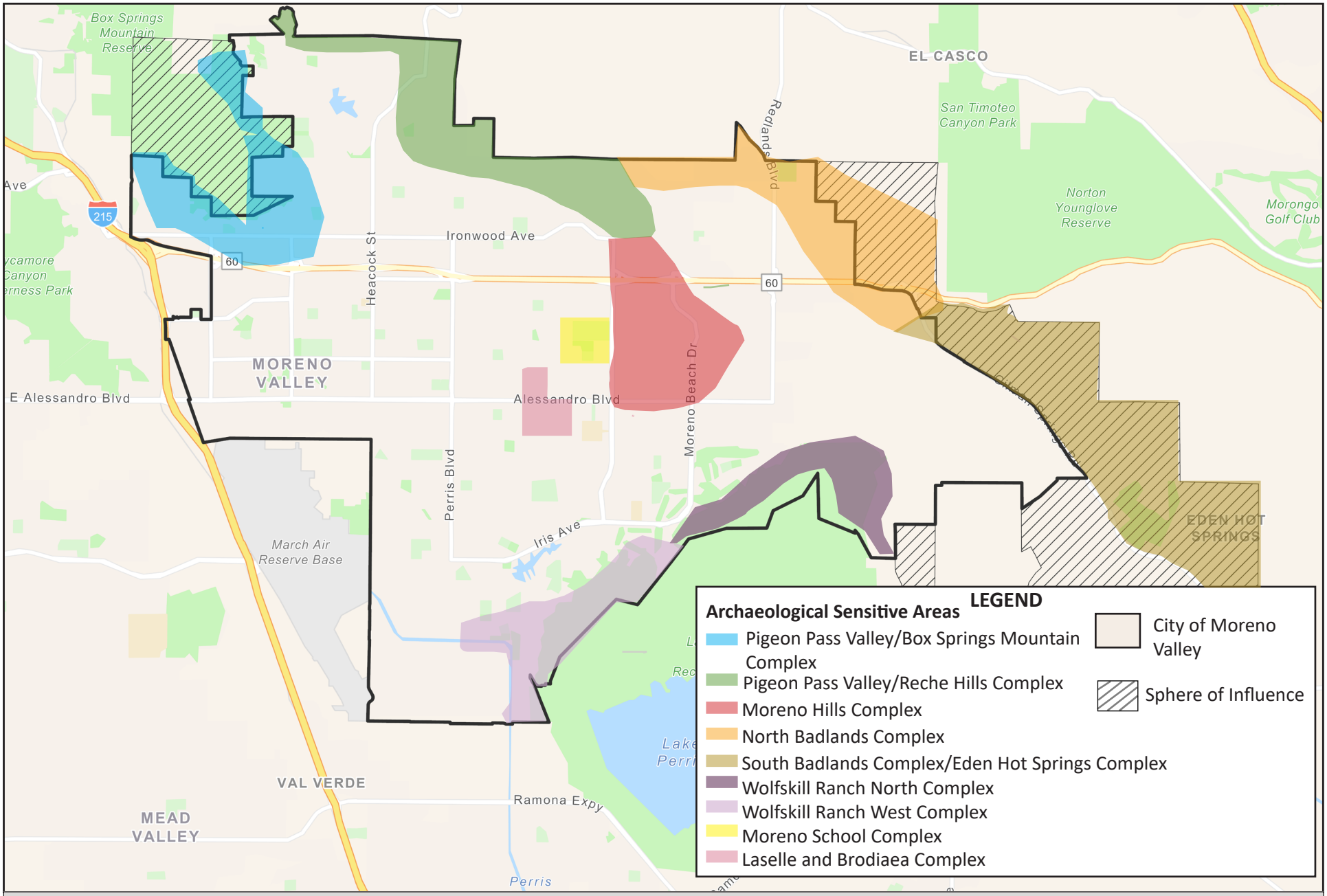


FIGURE 4.5-2: ARCHAEOLOGICAL SENSITIVE AREAS
MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

Properties may qualify for NRHP listing if they qualify under the following criteria:

Criterion A: Associated with events that have made a significant contribution to the broad patterns of history;

Criterion B: Associated with the lives of persons significant in the past;

Criterion C: Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or

Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history.

Structures and features must usually be at least 50 years old to be considered for listing on the NRHP, barring exceptional circumstances. According to the NRHP guidelines, a resource must retain its integrity, or the "ability to convey its significance." The seven aspects of integrity are location, design, setting, materials, workmanship, feeling and association.

b. Federal Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law that was established in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items – human remains, funerary objects, sacred objects, or objects of cultural patrimony – to lineal descendants, and culturally affiliated Indian Tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and Tribal lands, and penalties for noncompliance and illegal trafficking in these items. Implementation of the proposed project would be conducted in compliance with NAGPRA. On March 15, 2010, the Department of the Interior issued a final rule on 43 Code of Federal Regulations (CFR) Part 10, of the NAGPRA Regulations – Disposition of Culturally Unidentifiable Human Remains. The final rule implements NAGPRA by adding procedures for the disposition of culturally unidentifiable Native American human remains in the possession or control of museums or federal agencies. The rule also amends sections related to purpose and applicability of the regulations, definitions, inventories of human remains and related funerary objects, civil penalties, and limitations and remedies. The rule became effective on May 14, 2010.

Federal curation regulations are also provided in 36 CFR 79, which apply to collections that are excavated or removed under the authority of the Antiquities Act (16 United States Code [USC] 431-433), the Reservoir Salvage Act (16 USC 469-469c), Section 110 of the NHPA (16 USC 470h-2), or the Archaeological Resources Protection Act (16 USC 470aa-mm). Such collections generally include those that are the result of a prehistoric or historic resources survey, excavation or other study conducted in connection with a federal action, assistance, license or permit.

4.5.2.2 State

a. CEQA Guidelines and California Register of Historical Resources

California Code of Regulations (CCR) Section 15064.5, The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the CEQA Guidelines) establishes the procedure for determining the significance of impacts to archeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

- A resource listed in, or determined to be eligible by, the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code (PRC), or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:

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

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

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or

identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

The CRHR may also include properties listed in local registers of historic properties. A "local register of historic resources" is broadly defined in Section 5020.1(k) as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." Local registers of historic properties come in two forms: (1) surveys of historic resources conducted by a local agency in accordance with Office of Historic Preservation procedures and standards, adopted by the local agency and maintained as current and (2) landmarks designated under local ordinances or resolutions (PRC Sections 5024.1, 21804.1, and 15064.5). The minimum age criterion for the CRHR is 50 years. Properties less than 50 years old may be eligible for listing on the CRHR, if "it can be demonstrated that sufficient time has passed to understand its historical importance" [Chapter 11, Title 14, Section 4842(d)(2)].

A Tribal cultural resource may be considered significant if it is included in a local or state register of historical resources or determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1; is a geographically defined cultural landscape that meets one or more of these criteria; or is a historical resource described in PRC Section 21084.1, a unique archaeological resource described in PRC Section 21083.2, or a non-unique archaeological resource if it conforms with the above criteria.

b. California Health and Safety Code Sections 7050.5, 7051, and 7054

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures. Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98 (refer to second paragraph below). The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric (Native American), the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification, and may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials.

c. Native American Historic Cultural and Sanctified Cemetery Sites (PRC Section 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 Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to a year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR. In the fall of 2006, the law was amended to revise the process for the discovery of Native American remains during land development. The revisions encourage culturally sensitive treatment of Native American remains, and to require meaningful discussions and agreements concerning treatment of the remains at the earliest possible time. The intent is to foster the preservation and avoidance of human remains during development. The changes in the law allow additional time to notify, consult and confer with the MLD/Native American representatives on any given project. In addition, the new language provides more protection for re-interment sites.

Specifically, PRC Section 5097.9 states that no public agency, and no private party using or occupying public property or operating on public property, shall interfere with the free expression or exercise of Native American religion, nor shall any such agency cause severe or irreparable damage to any Native American Sanctified Cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

d. Assembly Bill 52

As of July 1, 2015, PRC Section 21084.2 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a Tribal cultural resource, as defined, is a project that may have a significant effect on the environment." Assembly Bill (AB) 52 (2014) requires lead agencies to consult with any California Native American Tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a project will result in an adverse effect to Tribal cultural resource, the lead agency must consider measures to mitigate the impact.

e. Senate Bill 18

As of March 1, 2005, Senate Bill (SB) 18 (2004) permits California Native American Tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the Tribe and the landowner. The term "California Native American Tribe" is defined as "a federally recognized California Native American Tribe or a non-federally recognized California Native American Tribe that is on the contact list maintained by the NAHC." The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American Tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American Tribes specified by the NAHC and to provide them with opportunities for involvement.

4.5.2.3 Local Regulations

a. City of Moreno Valley General Plan Policies and Municipal Code

The 2024 GPU includes goals and policies that would serve to preserve historical resources within the Planning Area. The Open Space and Resource Conservation Element includes a goal to preserve and respect Moreno Valley's unique cultural and scenic resources, recognizing their contribution to local character and sense of place.

b. Municipal Code, Heritage Trees

Title 9, Chapter 9.17.030, Section G of the Municipal Code identifies Heritage Trees as any tree that defines the historical and cultural character of the City including older Palm and Olive trees, and/or any tree designated as such by official action. The regulation prohibits any person from removing, destroying, or disfiguring a heritage tree within the City limits. Removal of a heritage tree designated historic and/or culturally significant by official action shall require the review of the ecological historical preservation board. The ordinance provides certain exceptions and exemptions from the Heritage Tree requirements.

c. Municipal Code, Cultural Preservation

Title 7, Cultural Preservation of the Municipal Code promotes public health, safety, and general welfare by providing for the preservation, identification, protection, enhancement and perpetuation of existing improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets and natural features having special cultural, historical, archaeological, architectural or community value in the City. Per Chapters 7.05 and 7.07, landmarks, structures of merit, and preservation districts and neighborhood conservation areas can be designated by a committee or by the City council on appeal. Title 7, Chapter 7.09.010 requires a permit to restore, rehabilitate, alter, develop, construct, demolish, remove or change the appearance of any landmark, landmark structure, landmark site, or any structure or site within a preservation district.

4.5.3 Methodologies for Determining Impacts

Preparation of this EIR section began with a review of the record search results completed by the EIC for the Planning Area, as well as existing cultural resources information from the 2006 Moreno Valley General Plan Program EIR. This existing data was used to develop a cultural resources sensitivity map that was compared to the Concept Areas and Community Corridors to determine the potential to impact existing cultural resources within the Planning Area. This was followed by an evaluation of how proposed 2024 GPU goals would serve to either preserve or impact cultural resources within the Planning Area.

4.5.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to cultural resources are based on applicable criteria in the CEQA Guidelines (CCR Sections 15000-15387), Appendix G. A significant impact related to cultural resources would occur if the project would:

1) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
3) Disturb any human remains, including those interred outside of dedicated cemeteries.

Additionally, a significant impact related to Tribal cultural resources would occur if the project would:

4) Cause a substantial adverse change in the significance of a Tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

    a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or

    b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American.

4.5.5 Impact Analysis

4.5.5.1 Topic 1: Historic Resources

Would the project cause a substantial adverse change in the significance of an historic-era resource pursuant to CEQA Section 15064.5?

As documented in Section 4.5.1.4.a above, a review of recent aerial photographs and historic-era resources from the EIC record search identified a total of 48 existing resources within the Planning Area (see Figure 4.5-1). One resource is listed as California Point of Historical Interest. Potentially significant historic resources within the Planning Area include four resources that have been recommended eligible for the NRHR/CRHR and three that have been recommended eligible for a local listing or designation. The majority of potentially significant historic resources within the Planning Area have not been evaluated for significance under CEQA.

Impacts from future development on the built environment would occur at the project level. Any alteration, relocation, or demolition associated with future development that would affect historic buildings, structures, objects, landscapes, and sites over 50 years of age would represent a potentially significant impact to historical resources. Future development and redevelopment would be required to adhere to CEQA and relevant portions of the Municipal Code. Per Title 9, Chapter 9.17.030, Section G future projects would be required to protect heritage trees. Additionally, per Title 7, Cultural Preservation, future projects would be evaluated for landmarks, structures of merit, preservation districts, and neighborhood conservation areas. Future projects involving significant historic structures or buildings listed on these lists would require a permit to restore, rehabilitate, alter, develop, construct, demolish, remove, or change the appearance. Furthermore, the 2024 GPU also includes goals that would serve to preserve cultural resources within the Planning Area. Open Space and Resource Conservation Goal 2 seeks to preserve Moreno Valley's unique cultural and scenic resources for their contribution to local character.

As shown in Figure 4.5-1, the proposed Concept Areas would avoid the majority of the known historic or potentially historic resources within the Planning Area. Nevertheless, the proposed Residential Density Change Concept Area located south of Sunnymead Boulevard and east of Heacock Street would overlap with the location of one resource identified as significant, and two resources recommended eligible for the NRHR. Future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations would also have the potential to impact known historic or potentially historic resources, including unrecorded historical resources that have not been evaluated or may become eligible for listing in the future. Furthermore, development within vacant lands may result in indirect impacts to the visual and setting integrity to significant historic resources. Therefore, the Project would have the potential to cause a substantial adverse change in the significance of historic era resources, which would be considered a significant impact.

4.5.5.2 Topic 2: Archaeological Resources

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?

As documented in Section 4.5.1.4.b above, the EIC record search identified a total of 255 archaeological resources within the Planning Area. The 2024 GPU includes goals that would serve to preserve cultural resources within the Planning Area. Open Space and Resource Conservation Goal 2 seeks to preserve Moreno Valley's unique cultural and scenic resources for their contribution to local character. As shown in Figure 4.5-2, the proposed Concept Areas would avoid the majority of the known archaeological resources within the Planning Area. Additionally, the Open Space and Resource Conservation Element (OSRC) of the 2024 GPU also includes goal, policy, and action that would serve to preserve cultural resources within the Planning Area.

Goal

OSRC-2: Preserve and respect Moreno Valley's unique cultural and scenic resources, recognizing their contribution to local character and sense of place.

Policy

OSRC.2-8 Require cultural resource assessments prior to the approval of development proposals on properties located in archaeologically sensitive areas.

Action

OSRC.2-B Maintain a map of sensitive archaeological sites in Moreno Valley and use it to inform project applicants of the need for cultural resource assessments.

Nevertheless, the proposed Highway Office/Commercial and two of the Residential Density Change Concept Areas would overlap with the Moreno Hills complex, and the proposed Downtown Center Concept Area would overlap with the Lasselle and Brodiaea complex. Additionally, the Highway Office/Commercial Concept Area would be located adjacent to the North Badlands complex, and the Downtown Center Concept Area would be located adjacent to the Moreno School complex. Future development and redevelopment outside the proposed Concept Areas consistent with the existing 2006 General Plan land use designations would also have the potential to occur within known archaeologically sensitive complexes. Furthermore, future development and redevelopment within the Planning Area would have the potential to impact unrecorded archaeological resources that have not been evaluated or may become eligible for listing in the future. Therefore, implementation of future projects could result in the ground-disturbing activities within vacant land that could unearth unknown buried archaeological resources. Any grading, excavation, and other ground disturbing activities associated with future development that could expose buried archaeological resources and features, including sacred sites or TCPs, would be considered a significant impact.

4.5.5.3 Topic 3: Human Remains

Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

The EIC record search did not identify any formal cemeteries or other resources that are known to currently possess human remains. Although the record search identified two historic grave sites, these sites have been destroyed and no longer possess human remains. However, due to the history of various Native American Tribes and their presence throughout the Planning Area, there is the potential for human remains, including those interred outside of formal cemeteries, to be located within the Planning Area. Therefore, implementation of subsequent future projects could result in the ground-disturbing activities within vacant land that could unearth unknown buried human remains, which would be considered a significant impact.

4.5.5.4 Topic 4: Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, features, 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 CRHR, or in a local register or
ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set form in subdivision c of PRC Section 5024.1?*

There is a potential to encounter buried resources associated with the material culture of traditional cultural territory used by the Luiseño, Gabrielino, and Cahuilla for thousands of years. Often Tribal cultural resources as defined in CEQA PRC Section 21074 are associated with or in proximity to significant archaeological resources. The NAHC sacred lands search indicated the results are positive. They recommended contacting the Los Coyotes Band of Cahuilla and Cupeño Indians.

According to AB 52 and PRC Section 21080.3.1, the City must consult with traditionally and culturally affiliated Native American Tribes to determine if a project will result in a substantial adverse change to Tribal cultural resource. In an effort to determine the future potential impacts to Tribal cultural resource, listed California Native American Tribes that are traditionally and culturally affiliated with the geographic scope of the Planning Area were engaged for input regarding Tribal cultural resources not yet formally recorded that could be impacted by subsequent projects. As part of the 2021 MoVal 2040 Project, the City sent letters to the following Tribes informing them of the Project consistent with the requirements of AB 52:

- Agua Caliente Band of Cahuilla Indians
- Torres Martinez Desert Cahuilla Indians
- Morongo Band of Cahuilla Mission Indians
- Pechanga Cultural Resources Department
- Rincon Band of Luiseño Indians
- San Manuel Band of Mission Indians
- Soboba Band of Luiseño Indians

On May 19, 2020, Joseph Ontiveros, the Tribal Historic Preservation Officer for the Soboba Band of Luiseño Indians (Soboba), requested initiation of formal consultation under AB 52 with the City. Soboba stated that although the Planning Area is outside of their existing reservation, it does fall within the bounds of their Tribal Traditional Use Areas. Furthermore, the Planning Area includes known sites, is a recognized shared use area of trade between Tribes, and is considered culturally sensitive to their people (Appendix C-1).

As part of the MoVal 2040 Revised Draft EIR, the City sent letters to the following Tribes informing them of the Project consistent with the requirements of AB 52 (Appendix C-2):

- Agua Caliente Band of Cahuilla Indians
- Torres-Martinez Desert Cahuilla Indians
- Morongo Band of Cahuilla Mission Indians
- Pechanga Band of Mission Indians
- Rincon Band of Luiseño Indians
- Yuhaaviatam of San Manuel Nation (Formerly known as San Manuel Band of Mission Indians)
- Soboba Band of Luiseño Indians

On August 20, 2024, Shuuluk Linton, Tribal Historic Preservation Coordinator for the Rincon Band of Luiseño Indians (Rincon) requested consultation to assess potential impacts to Tribal cultural resources. Rincon identified the Planning Area as a location within the Territory of the Luiseño people and also within Rincon's Specific Area of Historic Interest (AHI).

On August 27, 2024, Kristen Tuosto, Tribal Archaeologist for the Yuhaaviatam of San Manuel Nation (YSMN) requested: (1) that the City initiate consultation pursuant to AB 52 and PRC Section 21080.3.1; (2) provide additional information concerning the proposed zoning changes, to include draft text, maps, cultural report, etc.; (3) provide a draft copy of the GPU; and (4) provide information detailing if the GPU would trigger any ground-disturbing "by-right development" that would preclude the YSMN from consulting on any developments.

On September 13, 2024, Luz Salazar, Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians (Agua Caliente) requested: (1) formal government to government consultation under AB 52, and (2) virtual copies of the 2021 MoVal GPU EIR and MoVal 2040 Revised Draft EIR.

On September 16, 2024, Tubu Ebru Ozdil, Cultural Analyst for the Pechanga Band of Mission Indians (Pechanga) requested consultation under AB 52 for the Project. The Tribe requested to be added to the City's distribution list(s) for public notices and circulation of all documents and to be directly notified of all public hearings.

On September 20, 2024 Laura Chatterton, Cultural Resource Specialist for the Morongo Band of Mission Indians (Morongo) requested further information about ground disturbance associated with the Project.

On November 12, 2024, the City sent a letter to the Tribes requesting consultation, pursuant to AB 52, stating that the Tribe would receive a copy of the Revised Draft EIR when available. The Tribes requesting consultation pursuant to AB 52 include: Agua Caliente Band of Cahuilla Indians, Morongo Band of Cahuilla Indians, Pechanga Cultural Resources Department, Rincon Band of Luiseño Indians, and the Yuhaaviatam of San Manuel Nation. The City also provided contact information to arrange a consultation if the Tribe wished to do so before the documents were available.

According to SB 18, the City must consult with California Native American Tribes for the purpose of preserving specified places, features, and objects located within the City's jurisdiction. This applies prior to the adoption or amendment of a City's general plan and

specific plans. To comply with this, the City contacted the following for SB 18 consultation per a list provided by the NAHC during the 2021 MoVal 2040 GPU:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians, Anza, CA
- Torres-Martinez Desert Cahuilla Indians
- Los Coyotes Band of Cahuilla and Cupeno Indians
- Morongo Band of Cahuilla Indians
- Pechanga Cultural Resources Department
- Fort Yuma Quechan
- Ramona Band of Cahuilla Indians
- Rincon Band of Luiseño Indians
- San Fernando Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- San Manuel Band of Mission Indians
- Soboba Band of Luiseño Indians

On May 4, 2020, H. Jill McCormick, Historic Preservation Officer for the Ft. Yuma Quechan Tribe, responded by notification of no comments regarding the 2021 MoVal 2040 GPU and that the Tribe will defer to the more local tribes and support their decisions regarding the 2021 MoVal 2040 GPU (see Appendix C-1).

On May 19, 2020, Soboba has requested: (1) government-to-government consultation, which includes the transfer of information to Soboba regarding project progress as soon as new developments occur; (2) Soboba be considered a consulting tribal entity for this 2021 MoVal 2040 GPU; (3) since the possibility of encountering cultural resources during project construction/ excavation phases is intensified due to working in and around traditional use areas, Soboba has requested that Native American monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department be present during any ground disturbing activities, which would include archaeological surveys and testing; and (4) Soboba has requested that proper procedures be taken and tribal requests be honored (see Appendix C-1)

On May 28, 2020, Jessica Mauck, Director of Cultural Resources Management for the San Manuel Band of Mission Indians (SMBMI), responded with notification that a portion of the Planning Area exists within a sensitive portion of Serrano ancestral territory; therefore, SMBMI elected to consult on the 2021 MoVal 2040 GPU under both SB 18 and CEQA. SMBMI requested the provision of the following technical documents for tribal review: the cultural report; soil/geological study; and proposed project/zoning maps. SMBMI stated that the provision of this information will assist in project review and implementation (see Appendix C-1). The SMBMI included a map showing the overlap of the City's Planning Area with Serrano ancestral territory and the cultural areas of significance where their concerns will be focused (see Appendix C-1).

As part of the Moval 2040 Revised Draft EIR, the City contacted the following for SB 18 consultation per a list provided by the NAHC (See Appendix C-2):

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Cahuilla Indians
- Cahuilla Band of Indians, Anza, CA
- Torres-Martinez Desert Cahuilla Indians
- Los Coyotes Band of Cahuilla and Cupeno Indians
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pechanga Band of Indians
- Quechan Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla Indians
- Rincon Band of Luiseño Indians
- Santa Rosa Band of Cahuilla Indians
- Serrano Nation of Mission Indians
- Yuhaaviatam of San Manuel Nation (Formerly known as San Manuel Band of Mission Indians)
- Soboba Band of Luiseño Indians

On October 1, 2024, Jacobia Kirksey, Tribal Operations Specialist for the Augustine Band of Cahuilla Indians responded, stating they were unaware of any specific cultural resources within the Project area that would be affected by the Project. As such, the Augustine Band of Cahuilla Indians did not request formal consultation. The Tribe stated, however, that if any cultural resources are discovered, that the City contact the NAHC.

On October 7, 2024, Luz Salazar, Cultural Resources Analyst for the Agua Caliente Band of Cahuilla Indians requested formal government-to-government consultation under SB 18.

On October 21, 2024, Shuuluk Linton, Tribal Historic Preservation Coordinator for Rincon responded stating the Project location is within the Territory of the Luiseno people and also within Rincon's specific AHI. Rincon requested the City to assess potential impacts to cultural resources.

On October 31, 2024, Joseph Ontiveros, Tribal Historic Preservation Officer for the Soboba Band of Luiseño Indians (Soboba) requested: (1) government-to-government consultation, which includes the transfer of information to Soboba regarding Project progress as soon as new developments occur; (2) Soboba be considered a consulting Tribal entity for this Project; (3) since the possibility of encountering cultural resources during Project construction/ excavation phases is intensified due to working in and around traditional use areas, Soboba has requested that Native American monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department be present during any ground disturbing activities, which would include archaeological surveys and testing; and (4) Soboba has requested that proper procedures be taken and Tribal requests be honored.

On November 4, 2024, Tuba Ebru Ozdil, Cultural Analyst for the Pechanga Band of Indians requested formal consultation under SB 18 for the Project. However, at the time, Pechanga did not have sufficient information to engage in conversation. As such, the Tribe invoked its right to consult with the City after reviewing the information requested: public notices, environmental review documents, archaeological reports, and all other documents pertaining to the Project. Furthermore, the Tribe requests to be directly notified of all public hearing and scheduled approvals concerning the Project. The Tribe requested that the City provide all available documents as soon as possible for review prior to initiating SB 18 consultation.

As previously described, on November 12, 2024, the City sent a letter to the Tribes requesting consultation, pursuant to SB 18, stating that the Tribe would receive a copy of the Revised Draft EIR when available. The City also provided contact information to arrange a consultation if the Tribe wished to do so before the documents were available.

On January 9, 2025, City staff met with Cheryl Madrigal, Cultural Resources Department Manager and Shuuluk Linton, Tribal Historic Preservation Office Coordinator for Rincon and Jessica Valdez, Cultural Resource Specialist for AB 52 and SB 18 consultation, and Joseph Ontiveros, the Tribal Historic Preservation Officer for Soboba for SB 18 consultation. The Tribes requested a copy of the Biological and Cultural Resources Section of the MoVal 2040 General Plan, and the City's latest mitigation measures for their review. On January 15, 2025, Soboba provided revisions to the City's latest mitigation measures to address the closing of the EIC and to update the repository for Riverside County records to the SCIC at SDSU. No additional feedback was provided by the Rincon Band of Luiseño Indians.

The Revised Draft EIR includes all the mitigation measures (see Section4.5.8 below) proposed by the representatives of the Tribes as referred to above.

Furthermore, subsequent projects implemented in accordance with the Project would be subject to the provisions of AB 52 and/or SB 18 and may require Tribal consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic scope of the Planning Area. Future AB 52 and/or SB 18 consultation may identify Tribal cultural resources not yet found and formally recorded that could be impacted by subsequent projects. Grading of original in situ soils could also expose buried Tribal cultural resources and features including sacred sites. Therefore, implementation of future projects could cause a substantial adverse change in the significance of a Tribal cultural resource, which would be considered a significant impact.

4.5.6 Cumulative Analysis

4.5.6.1 Topic 1: Historic Resources

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Regardless of the efforts taken to avoid impacts to historic resources, the more land that is converted to developed uses, the greater the potential for impacts to historic resources. While individual projects can avoid or mitigate the direct loss

of a specific resource, the effects would be cumulatively considerable, and therefore could result in a cumulatively significant impact.

4.5.6.2 Topic 2: Archaeological Resources

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The loss of an archaeological resource due to mitigation by data recovery could be considered a cumulative impact.

Regardless of the efforts taken to avoid impacts to archaeological resources, the more land that is converted to developed uses, the greater the potential for impacts to archaeological resources. While individual projects can avoid or mitigate the direct loss of a specific resource, the effects would be cumulatively considerable, and therefore could result in a cumulatively significant impact.

4.5.6.3 Topic 3: Human Remains

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The loss of an archaeological resource due to mitigation by data recovery could be considered a cumulative impact.

Regardless of the efforts taken to avoid impacts to archaeological resources, the more land that is converted to developed uses, the greater the potential for impacts to archaeological resources. While individual projects can avoid or mitigate the direct loss of a specific resource, the effects would be cumulatively considerable, and therefore could result in a cumulatively significant impact.

4.5.6.4 Topic 4: Tribal Cultural Resources

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The loss of an archaeological resource due to mitigation by data recovery could be considered a cumulative impact.

Regardless of the efforts taken to avoid impacts to archaeological resources, the more land that is converted to developed uses, the greater the potential for impacts to archaeological resources. While individual projects can avoid or mitigate the direct loss of a specific resource, the effects would be cumulatively considerable, and therefore could result in a cumulatively significant impact.

4.5.7 Significance of Impacts before Mitigation

4.5.7.1 Topic 1: Historic Resources

Analysis of impacts from future development on the built-environment would be required at the project level. Any alteration, relocation, demolition, or excessive groundborne vibration associated with future development that would affect historic buildings, structures, objects,

landscapes, and sites would represent a significant impact to historical resources. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.

4.5.7.2 Topic 2: Archaeological Resources

Analysis of impacts from future development on known and those-not-yet-found archaeological resources would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that could expose buried prehistoric or historic-era archaeological resources would represent a significant impact to historical resources. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.

4.5.6.3 Topic 3: Human Remains

Analysis of impacts from future development on human remains would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that would expose or disturb unknown human remains would represent a significant impact to human remains. Therefore, future projects would have the potential to result in a substantial adverse effect on historical resources, and impacts would be significant.

4.5.7.4 Topic 4: Tribal Cultural Resources

Analysis of impacts from future development on Tribal cultural resources would be required at the project level. Any vegetation clearing/grubbing, grading, trenching, or excavation associated with future development that would affect Tribal cultural resources represent a significant impact to Tribal cultural resources. Therefore, future projects would have the potential to result in a substantial adverse effect on Tribal cultural resources, and impacts would be significant.

4.5.8 Mitigation

The following mitigation measures would reduce impacts to the historic built-environment, archaeological resources, human remains, and Tribal cultural resources to less than significant. These mitigation measures identify the process of implementing those recommendations and would be required for future projects with the potential to impact historical and Tribal cultural resources.

4.5.8.1 Topic 1: Historic Resources

CUL-1: Prior to the issuance of any permit for a future development site-specific project that would directly or indirectly affect a building/structure in excess of 50 years of age, the City or a qualified architectural historian shall determine whether the affected building/structure is historically significant. The

evaluation shall be based on criteria such as age, location, context, association with an important person or event, uniqueness, or structural integrity, as indicated in the CEQA Guidelines. If the evaluation determines that building/structure is not historic, no further evaluation or mitigation would be required. If the building/structure is determined to be historically significant, the preferred mitigation would be to avoid the resource through project redesign. If the resource cannot be avoided, all prudent and feasible measures to minimize or mitigate harm to the resource shall be taken per recommendations of the qualified architectural historian.

4.5.8.2 Topic 2: Archaeological Resources

CUL-2: Prior to issuance of any permit for a future site-specific project that would potentially have a direct or indirect affect an archaeological resource, the City shall require the following steps be taken to determine: (1) the presence of archaeological resources, and (2) the appropriate mitigation for any significant resources which may be impacted by project development. The following steps would help determine the presence or absence of archaeological resources.

Step 1: An archaeologist shall conduct records and background research at the South Coastal Information Center (SCIC) for a list of recorded resources and request a sacred lands file search from the Native American Heritage Commission.

Step 2: After review of this data, a pedestrian survey shall be conducted by a qualified archaeologist.

Step 3: If through the research and the field survey, archaeological resources are identified, then an evaluation of significance shall be completed by a qualified archaeologist. The evaluation program generally will include excavation to determine depth, extent, integrity, and content of the subsurface cultural material.

Step 4: The results of the excavation will be evaluated using the Thresholds above in Section 4.5.4.

Step 5: If an archaeological resource is determined significant and avoidance through project redesign is not feasible, a data recovery and construction monitoring program must be implemented to reduce the impacts the archaeological resource to below a significant level. The data recovery program must be approved by the City.

Step 6: A final data recovery and/monitoring report shall be completed in accordance with the California Office of Historic Preservation's *Archaeological Resource Management Reports: Recommended Content*

and Format. Confidential attachments must be submitted under separate covers. Artifacts collected during the evaluation and data recovery phases must be curated at an appropriate facility consistent with state (California State Historic Resources Commission's Guidelines for Curation of Archaeological Collection 1993) and federal curation standards (36 CFR 79 of the Federal Register) and that allows access to artifact collections.

CUL-3: Prior to the issuance of any permit for a future site-specific project, the project developer shall retain a professional archaeologist (Project Archaeologist), at no cost to the City, to conduct monitoring of all ground disturbing activities associated with the respective project. The Project Archaeologist shall be authorized to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s), which have requested monitoring, the contractor, and the City, shall develop a Cultural Resources Management Plan (CRMP) as defined in CUL-5. The Project Archeologist shall attend all pre-grading meetings with the City, the project's construction manager, the project's general contractor and the pertinent contractors. In addition, the Project's Archaeologist shall provide and conduct Cultural Resources Worker Sensitivity Training, which the project's construction manager, general contractor, and all pertinent subcontracts shall be required to attend. In addition, to the Project Archaeologist, the designated archaeological monitor for the respective project shall have the authority to temporarily halt and redirect earth-moving activities in the affected area in the event that suspected archaeological resources are unearthed**.**

CUL-4: Prior to the issuance of any permit for a future site-specific project, the project Developer shall secure agreements with the Consulting Tribe(s). The project developer shall provide a minimum of 30 days' advance notice to the tribes of all ground-disturbing activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth-moving activities in the affected area in the event that suspected archaeological resources are unearthed. The Native American Monitor(s) shall be invited to attend all pre-grading meetings with the Project Archaeologist, the City, the construction manager, and general contractor, and any pertinent subcontractors and conduct the Tribal Perspective of the mandatory Cultural Resources Worker Sensitivity Training to those in attendance.

CUL-5: The Project Archaeologist, in consultation with the Consulting Tribe(s), the project's construction manager and general contractor, and the City shall develop a CRMP in consultation pursuant to the definition in AB 52 to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A Consulting Tribe is defined as a Tribe that initiated the AB 52 and/or SB 18 tribal consultation process for the project, and has not opted out of the AB 52 and/or SB 18 consultation process,

and has completed AB 52 and/or SB 18 consultation with the City as provided for in PRC Section 21080.3.2(b)(1) of AB 52. Details in the Plan shall include:

a. Project description and location
b. Project grading and development scheduling;
c. Roles and responsibilities of individuals on the project;
d. The pre-grading meeting and Cultural Resources Worker Sensitivity Training details;
e. The protocols and stipulations that the project's construction manager and general contractor, City, Consulting Tribe(s), and Project Archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.
f. The type of recordation needed for inadvertent finds and the stipulations of recordation of sacred items.
g. Contact information of relevant individuals for the project;

CUL-6: In the event that Native American cultural resources are discovered during the course of ground disturbing activities (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. Evidence of such shall be provided to the City of Moreno Valley Planning Division:
    i. Preservation-In-Place of the cultural resources, if feasible. Preservation-In-place means avoiding the resources, leaving them in the place they were found with no grading or construction activities commencing that may potentially affect or otherwise impact the integrity of the resources.
    ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure CUL-3. This shall include 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. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in CUL-5 The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.

CUL-7: The City shall verify that the following note is included on the Grading Plan of any future site-specific project: "If any suspected archaeological resources are discovered during ground–disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and

call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find.

CUL-8: If potential historic or cultural resources are uncovered during excavation or construction activities at any future site-specific project that were not assessed by the archaeological report(s) and/or environmental assessment conducted prior to project approval, all ground-disturbing activities in the affected area within 100 feet of the uncovered resource must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. 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 archeologists and Tribal Monitors if needed. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in CUL-4 before any further work commences in the affected area. If the find is determined to be significant and avoidance of the site has not been 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.

CUL-9: Prior to final inspection, the developer/permit holder shall prompt the Project Archeologist to submit two (2) copies of the Phase III Data Recovery report (if required for the project) and the Phase IV Cultural Resources Monitoring Report that complies with the Community Development Department's requirements for such reports. The Phase IV report shall include evidence of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting. The Community Development Department shall review the reports to determine adequate mitigation compliance. Provided the reports are adequate, the Community Development Department shall clear this condition. Once the report(s) are determined to be adequate, two (2) copies shall be submitted to the South Coastal Information Center (SCIC) at the San Diego State University (SDSU) and one (1) copy shall be submitted to each of the Consulting Tribe(s) Cultural Resources Department(s).

4.5.8.3 Topic 3: Human Remains

CUL-10: If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the "most likely descendant". The "most likely descendant" shall then make recommendations and engage in consultations concerning the treatment of the remains (PRC Section 5097.98). (GP Objective 23.3, CEQA). No photographs are to be taken except by the coroner, with written approval by the consulting Tribe[s].

CUL-11: It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254 (r)., parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

4.5.8.4 Topic 4: Tribal Cultural Resources

Implementation of CUL-1 and CUL-11 along with AB 52 and SB 18 consultation early during the development review process, would minimize potentially significant impacts on Tribal cultural resources.

4.5.9 Significance of Impacts after Mitigation

4.5.9.1 Topic 1: Historic Resources

Implementation of the mitigation measures described above would reduce impacts on historic resources to a level less than significant. However, as no specific development projects have been identified at this time, it is not possible to ensure that every future project could fully mitigate potentially significant impacts. Therefore, impacts to historic resources would be significant and unavoidable at this program level of review.

4.5.9.2 Topic 2: Archaeological Resources

Implementation of the mitigation measures described above would reduce impacts on archaeological resources to a level less than significant. However, as no specific projects have been identified at this time, it is not possible to ensure that every future project could fully mitigate potentially significant impacts. Therefore, impacts to archaeological resources would be significant and unavoidable at this program level of review.

4.5.9.3 Topic 3: Human Remains

Implementation of the mitigation measures described above would reduce impacts on human remains to a level less than significant. However, as no specific projects have been identified at this time, it is not possible to ensure that every future project could fully mitigate potentially significant impacts. Therefore, impacts to human remains would be significant and unavoidable at this program level of review.

4.5.9.4 Topic 4: Tribal Cultural Resources

Implementation of the mitigation measures described above would reduce impacts on Tribal cultural resources to a level less than significant. However, as no specific projects have been identified at this time, it is not possible to ensure that every future project could fully mitigate potentially significant impacts. Therefore, impacts to Tribal cultural resources would be significant and unavoidable at this program level of review.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.6, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

4.6 Energy

This section evaluates potential impacts related to energy conservation due to implementation of the Project, which consists of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP). These three separate planning documents are collectively referred to as MoVal 2040 Project ("Project"). The analysis area covers the entire City of Moreno Valley ("City") and its sphere of influence, which are collectively referred to as the Planning Area. This energy analysis evaluates potential effects associated with the Project and cumulative increases of transportation-related fuel use and building-related energy use (electricity and natural gas) resulting from buildout of the 2024 GPU land use designations. In accordance with the California Environmental Quality Act (CEQA), the Project is evaluated for its potential to result in wasteful, inefficient, or unnecessary consumption of energy resources or to conflict with applicable plans for renewable energy and energy efficiency.

4.6.1 Existing Conditions

4.6.1.1 Electricity

Southern California Edison (SCE) is the main electricity provider in the City. SCE is regulated by the California Public Utilities Commission (CPUC), which is responsible for making sure that California utilities' customers have safe and reliable utility service. The City is also served by the Moreno Valley Utility (MVU), which is in charge of providing electric power to new commercial and residential development, also known as greenfields. MVU also provides energy for public vehicle charging stations in Moreno Valley.[1]

[1] Moreno Valley Electric Utility (MVU), Moreno Valley Electric Utility 2018 Integrated Resource Plan, https://www.moreno-valley.ca.us/mvu/pubs/MVU-IRP-Report-072018.pdf. Accessed September 19, 2024.

Senate Bill 1078 (SB 1078) established the California Renewables Portfolio Standard (RPS) Program, which requires SCE and other statewide energy utility providers to achieve renewable energy goals by certain milestone dates (see Section 4.6.2.1). Table 4.6-1 summarizes the SCE and MVU power mix as of 2023, which is the most recent data available as of April 2025. As shown, SCE's default power mix included 37.6 percent of its energy from renewable resources in 2023, and SCE offered "green rate" enrollment options for customers who wanted to purchase additional renewable energy. MVU's default power mix included 23.8 percent of its energy from renewable resources.

Table 4.6-1
Southern California Edison and Moreno Valley Utility Power Content Label

Energy Resources	SCE				MVU Default Power Mix	2023 California Power Mix
	Default Power Mix	Green Rate (50% Option)	Green Rate (100% Option)	Community Renewable		
Eligible Renewable	37.6%	68.7%	100.0%	64.6%	23.8%	36.9%
Biomass & Biowaste	*0.1%*	*0.1%*	*0.0%*	*0.1%*	*0.0%*	*2.1%*
Geothermal	*5.2%*	*2.6%*	*0.0%*	*3.0%*	*0.0%*	*4.8%*
Eligible Hydroelectric	*0.7%*	*0.4%*	*0.0%*	*0.4%*	*0.0%*	*1.8%*
Solar	*19.8%*	*59.8%*	*100.0%*	*54.5%*	*23.8%*	*17.0%*
Wind	*11.7%*	*5.9%*	*0.0%*	*6.6%*	*0.0%*	*11.2%*
Coal	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%
Large Hydroelectric	4.5%	2.2%	0.0%	0.0%	0.0%	11.7%
Natural Gas	20.0%	10.0%	0.0%	0.0%	0.0%	36.6%
Nuclear	9.1%	4.5%	0.0%	0.0%	0.0%	9.3%
Other	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%
Unspecified Sources*	28.8%	14.5%	0.0%	0.0%	76.2%	3.7%

SOURCE: California Energy Commission, 2023, Annual Power Content Labels for 2023. Accessed April 20, 2025.
*"Unspecified Sources" means electricity from transactions that are not traceable to specific generation sources.

Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures, tax incentives, and consumer demand California's electrical system has increased deliveries of power from renewable energy sources, including cogeneration (where single fuel source generates both electricity and heat), wind energy, solar energy, geothermal energy, biomass conversion, transformation plants (converting different energy source such as solar, wind, and geothermal into electricity), and small hydroelectric plants. Unlike petroleum production, electricity generation is not usually tied to the location of the fuel source and can be delivered great distances via the electrical grid. The generating capacity of a unit of electricity is expressed in megawatts (MW). Net generation refers to the gross amount of energy produced by a unit minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh). For the year 2023 (the most recent data available as of April 2025), overall electrical consumption in California was 239,480 GWh.[2]

Table 4.6-2, Residential and Nonresidential Electricity Consumption for Riverside County, identifies the residential and nonresidential electricity demand between 2011 and 2022

[2] U.S. Energy Information Administration, 2023 State Profile and Energy Estimates - California, https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_es.html&sid=CA. Accessed April 9, 2025.

within Riverside County. In 2011, residential uses comprised 46 percent of Riverside County's electricity demand, while non-residential uses comprised 54 percent. By 2022, these percentages changed to 51 percent and 49 percent, respectively, for residential and non-residential uses. Although total electricity demand has fluctuated from year to year, overall, between 2011 and 2022, Riverside County's total electricity demand increased by 24 percent.

Table 4.6-2
Residential and Nonresidential Electricity Consumption for Riverside County

Year	Million Kilowatt-Hours		
	Residential Electricity Consumption (million kilowatt-hours)	Nonresidential Electricity Consumption (million kilowatt-hours)	Total Electricity Consumption
2022	9,060.557	8,720.017	17,780.57
2021	8,610.772	8,389.538	17,000.31
2020	8,844.553	7,934.638	16,779.19
2019	7,678.104	8,085.192	15,763.3
2018	7,643.106	8,171.19	15,814.3
2017	7,633.771	8,157.183	15,790.95
2016	7,171.032	8,164.868	15,335.9
2015	7,076.846	8,100.384	15,177.23
2014	6,770.339	8,702.441	15,472.78
2013	6,603.979	8,471.018	15,075
2012	6,675.007	8,532.857	15,207.86
2011	6,579.06	7,772.58	14,351.64

SOURCE: California Energy Commission (CEC), California Energy Consumption Database, https://ecdms.energy.ca.gov/. Accessed March 26, 2025.

Table 4.6-3, 2022 Electricity Consumption, summarizes the electricity consumption within the MVU and SCE service areas for the year 2022, based on California Energy Commission (CEC) data.

Table 4.6-3
2022 Electricity Consumption

Land Use	Million Kilowatt-Hours	
	MVU	SCE
Agriculture & Water Pump	0.70	3,149.65
Commercial Building	136.13	30,496.08
Commercial Other	10.14	5,321.23
Industry	15.51	12,876.61
Mining & Construction	1.80	1,776.06
Residential	48.56	31,603.72
Streetlight	1.16	646.64
Total 2022 Consumption	**214.00**	**85,869.99**

SOURCE: CEC, California Energy Consumption Database, https://ecdms.energy.ca.gov/. Accessed March 26, 2025.

Customer data reports provide consumption data within the SCE service area and are posted on a quarterly basis. The latest data on total consumption within the SCE service area is shown in Table 4.6-4, 2024 SCE Electricity Consumption.

Table 4.6-4
2024 SCE Electricity Consumption

Land Use	Million Kilowatt Hours
Agricultural	3,098.04
Commercial	25,865.78
Industrial	20,823.91
Residential	27,084.55

SOURCE: Southern California Edison, Energy Data – Reports and Compliance, 2024 Quarterly Reports. https://www.sce.com/regulatory/energy-data---reports-and-compliances. Accessed March 26, 2025.

Utilizing publicly available electricity consumption data from both MVU and SCE within the City, Citywide residential and nonresidential electricity use intensities were calculated. Existing electricity use intensities are estimated based on the existing land uses from Table 3-4 from Chapter 3.0, Project Description, of this Revised Draft EIR, and existing electricity demand, as shown in Table 4.6-5, Existing Citywide Electricity Demand.

Table 4.6-5
Existing Citywide Electricity Demand

Land Use	Consumption Rate[1]	Electricity Usage (GWh per year)
Residential	0.0051 GWh/DU/year	273
Commercial/Retail/Office	0.000039 GWh/SF/year	302
Industrial	0.000001 GWh/SF/year	40
Total		**615**

1. Consumption rate based on average energy use per dwelling unit (DU) or square foot (SF) based on data from utility provider. See Appendix F for detailed calculations.

4.6.1.2 Natural Gas

Natural gas is a hydrocarbon fuel found in reservoirs beneath the Earth's surface and primarily composed of methane (CH4). It is used for space and water heating, process heating and electricity generation, and as transportation fuel. Use of natural gas to generate electricity is expected to increase in coming years because it is a relatively clean alternative to other fossil fuels (e.g., oil and coal). In California and throughout the western U.S., many new electrical generation plants fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. California's natural gas-fired electric generation accounted for 44 percent of in-state generation in 2023, the most recent data available as of April 2025.[3] Natural gas is typically measured using therms, which is a unit of heat equivalent to 100,000 British thermal units (BTU).

The Southern California Gas Company (SoCal Gas) provides natural gas services to the City. SoCal Gas is the largest natural gas distribution utility in the nation and provides energy to

[3] California Energy Commission (CEC), 2023 Total System Electric Generation, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation. Accessed April 20, 2025.

about 21.1 million consumers within the 24,000 square mile service territory throughout Central and Southern California. According to the CEC, natural gas demand in the SoCalGas service area was 5,026 million therms in 2022 (the most recent data available as of April 2025).[4]

SoCalGas forecasts that the total demand for natural gas will decline at an annual rate of 1.0 percent per year through 2035.[5] The decline in demand is due to reduced gas demand in the major market segment areas of residential, electric generation, commercial, and industrial; aggressive energy efficiency programs; and statewide efforts to minimize greenhouse gas emissions. Table 4.6-6, Residential and Nonresidential Natural Gas Consumption for Riverside County, identifies the residential and nonresidential natural gas demand between 2012 and 2023.

In 2022, natural gas use in Riverside County was approximately 284 million therms for residential uses and 147 million therms for non-residential sectors.[6] Between 2011 and 2022, Riverside County's total natural gas demand increased by approximately 6 percent.

Table 4.6-6
Residential and Nonresidential Natural Gas Consumption for Riverside County

Year	Million Therms		
	Residential Natural Gas Consumption (million therms)	Nonresidential Natural Gas Consumption (million therms)	Total Natural Gas Consumption
2022	284.135	146.917	431.052
2021	286.631	143.450	430.081
2020	302.049	134.823	436.873
2019	304.777	147.962	452.738
2018	259.345	139.191	398.535
2017	254.096	139.149	393.245
2016	252.688	143.265	395.954
2015	224.847	128.326	353.174
2014	207.344	123.424	330.768
2013	253.348	129.729	383.077
2012	242.957	130.402	373.360
2011	269.219	135.921	405.141

SOURCE: CEC, California Energy Consumption Database, https://ecdms.energy.ca.gov/. Accessed March 26, 2025.

Based on data provided by SoCalGas, citywide residential and nonresidential natural gas use intensities were calculated. Existing natural gas use intensities are estimated based on the existing land uses from Table 3-4 from Chapter 3.0, Project Description, of this Revised Draft

[4] CEC, Gas Consumption by Southern California Gas, http://ecdms.energy.ca.gov/gasbyutil.aspx. Accessed April 9, 2025.

[5] California Gas and Electric Utilities, 2022 California Gas Report https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf. Accessed April 9, 2025.

[6] CEC, Gas Consumption by County, https://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed March 26, 2026.

EIR, and existing natural gas demand, as shown in Table 4.6-7, Existing Citywide Electricity Demand.

Table 4.6-7
Existing Citywide Natural Gas Demand

Land Use	Consumption Rate[1]	Natural Gas Usage (Million therms per year)
Residential	342 therms/DU/year	18.15
Nonresidential	0.28 therms/SF/year	2.20
Total		**20.35**

1. Consumption rate based on average energy use per dwelling unit (DU) or square foot (SF) based on data from utility provider. See Appendix F for detailed calculations.

4.6.1.3 Transportation Fuels

Transportation energy demand in California is largely related to vehicular traffic (e.g., passenger vehicles, light duty trucks, semi-trucks, etc.), with most transportation-related energy demand currently met by gasoline and diesel fuel. In 2024, California consumed 17.55 billion gallons of fuel (gasoline, diesel, and liquified natural gas) based on data from California EMission FACtor (EMFAC) 2021 Version 1.0.2. In Riverside County, approximately one billion gallons of fuel (gasoline, diesel, and natural gas) were consumed in 2024 based on EMFAC, as shown in Table 4.6-8, 2024 Transportation Fuel Consumption.

Table 4.6-8
2024 Transportation Fuel Consumption

Vehicle Fuel Type	Statewide	Riverside County
	Billion Gallons	
Diesel	3.195	0.259
Gasoline[1]	14.191	0.711
Liquified Natural Gas	0.163	0.009
Total	**17.550**	**0.978**

SOURCE: California Air Resources Board, *EMFAC*, https://arb.ca.gov/emfac/. Accessed March 26, 2025.
1. Includes gasoline consumption by plug-in hybrid vehicles.

Based on EMFAC data, average fuel consumption intensities were calculated based on countywide consumption and vehicle class. Existing citywide transportation fuel consumption is estimated based on vehicle miles traveled (VMT) data discussed in Chapter 4.16, Transportation and Circulation, of this Revised Draft EIR, and average fuel type vehicle mix according to EMFAC data as shown in Table 4.6-9, Existing Citywide Transportation Fuel Consumption.

Table 4.6-9
Existing Citywide Transportation Fuel Consumption

Vehicle Fuel Type	Gallons
Diesel	1,276,186
Gasoline[1]	148,722,926
Liquefied Natural Gas	10,985
Total	**150,010,096**

1. Includes gasoline consumption by plug-in hybrid vehicles.

4.6.2 Applicable Regulatory Requirements

4.6.2.1 Federal Regulations

a. National Energy Conservation Policy Act

The National Energy Conservation Policy Act serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, it has been regularly updated and amended by subsequent laws and regulations. This act is the foundation of most federal energy requirements.

b. Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. The act includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The act requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the act. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Energy Policy Act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

c. Energy and Independence Security Act of 2007

The Energy Independence and Security Act (EISA) was signed into law by President George W. Bush on December 19, 2007. EISA's goal is to achieve energy security in the United States by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on greenhouse gas (GHG) capture and storage. Under the EISA, the Renewable Fuel Standard (RFS) program (RFS2) was expanded in several key ways:

- Expanded the RFS program to include diesel, in addition to gasoline;
- Increased the volume of renewable fuel required to be blended into transportation fuel;
- Established new categories of renewable fuel and set separate volume requirements for each; and
- Required the U.S. Environmental Protection Agency (USEPA) to apply lifecycle greenhouse gas (GHG) performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

d. Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates the interstate transmission of electricity, natural gas, and oil. FERC is the federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas terminals, interstate natural gas pipelines, and nonfederal hydropower projects. Electricity is run by the states; however, FERC has jurisdiction over certain matters.

4.6.2.2 State Regulations

a. Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974, which gives statutory authority to the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- It removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections, and transferred it to the more impartial CEC.
- It directed the CEC to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as "non-conventional energy sources."

b. Advanced Clean Cars II

The Advanced Clean Cars II regulations will rapidly scale down light-duty-passenger, pickup truck and, sports utility vehicle emissions starting with the 2026 model year through 2035. The regulations will first amend the Zero-emission Vehicle Regulation to require an increasing number of zero-emission vehicles and rely on currently available advanced vehicle technologies (i.e., battery-electric, hydrogen fuel cell electric and plug-in hybrid) to meet air quality and climate change emissions standards. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions. The regulations will substantially reduce air pollutants that cause climate change and threaten public health. In

addition, the regulations will provide public health benefits of at least 12 billion dollars over the life of reductions by reducing premature deaths, hospitalizations and lost workdays associated with exposure to air pollution.

c. Advanced Clean Trucks

The Advanced Clean Trucks regulations aim to set zero-emissions vehicle (ZEV) sales requirements on manufacturers and a one-time reporting requirement for fleets and large entities. The development and use of advanced clean trucks will help the California Air Resources Board (CARB) achieve its emissions reduction strategies as outlined in the State Implementation Plan (SIP), Sustainable Freight Action Plan, Senate Bill (SB) 350 (2015), and Assembly Bill (AB) 32 (2006).

d. California Energy Efficiency Action Plan

In September 2008, the CPUC adopted the Long Term Energy Efficiency Strategic Plan, which established the first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions. Assembly Bill (AB) 758 subsequently established a requirement for regular updates to the plan in 2010, and SB 350 identified a plan goal in 2015 of achieving a doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030 (relative to 2015 base year). Since 2008, the plan has been implemented through focused action plans such as the Zero Net Energy Commercial Building Action Plan in June 2011, the Research and Technology Action Plan in August 2013, the Lighting Action Plan in November 2013, the Codes and Standards Action Plan in March 2014, and the New Residential Zero Net Energy Action Plan in June 2015, adopted by the CPUC. The action plans listed above identify champers or key initiative leads to pursue identified actions and to track and report on progress to the CPUC.

The first comprehensive update to the plan, the 2019 California Energy Efficiency Action Plan, was adopted in November 2019. In response to new direction from the Legislature, the focus of the new plan has been expanded. Rather than being focused on traditional end-use energy efficiency, the new plan also includes measures aimed at building decarbonization. Since publication of the most recent version, the 2021 Energy Efficiency Action Plan, building energy efficiency and decarbonization have assumed a more prominent role in efforts to cost-effectively reduce greenhouse gas emissions, improve public health, and address longstanding energy equity concerns.

e. Sustainable Communities Strategy

SB 375, the 2008 Sustainable Communities and Climate Protection Act, provides for a new planning process that coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established in AB 32 (California Global Warming Solutions Act of 2006). SB 375 requires regional transportation plans developed by metropolitan planning organizations (MPOs) to incorporate a Sustainable Communities Strategy in their plans. The goal of the Sustainable Communities Strategy is

to reduce regional VMT through land use planning and consequent transportation patterns. SB 375 also includes provisions for streamlined CEQA review for some infill projects, such as transit-oriented development.

f. Renewables Portfolio Standard

The RPS promotes diversification of the State's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by the Governor's Executive Orders (EOs) S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50 percent by year 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030. This bill also says that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

g. California Code of Regulations, Title 24 – California Building Code

The California Code of Regulations (CCR), Title 24, is referred to as the California Building Code (CBC). It consists of a compilation of several distinct standards and codes related to building construction, including, but not limited to, plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility.

Title 24, Part 6 – Energy Efficiency Standards

The CCR, Title 24, Part 6 is the Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Building Energy Efficiency Standards were adopted in August 2021 and went into effect on January 1, 2023.

The 2022 Building Energy Efficiency Standards improve upon the previous 2019 Building Energy Efficiency Standards. Among other updates, including strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards in the following three major areas:

- New electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores;
- The promotion of electric-ready requirements for new homes, including the addition of circuitry for electric appliances, battery storage panels, and dedicated infrastructure to allow for the conversion from natural gas to electricity; and
- The expansion of solar photovoltaic (PV) and battery storage standards to additional land uses including high-rise multifamily residences, hotels and motels, tenant spaces, offices (including medical offices and clinics), retail and grocery stores, restaurants, schools, and civic uses (including theaters auditoriums, and convention centers).

Buildings whose permit applications were submitted on or after January 1, 2023, must comply with the 2022 Energy Code. The 2025 Energy Code is currently in the pre-rulemaking process. If approved, the 2025 Energy Code would be effective January 1, 2026.

Title 24, Part 11 – California Green Building Standards Code

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The 2022 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements. The mandatory standards require:

- Outdoor water use requirements as outlined in local water-efficient landscaping ordinances or current Model Water Efficient Landscape Ordinance standards, whichever is more stringent;
- Requirements for water conserving plumbing fixtures and fittings;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

The 2025 CALGreen Code, if approved by the California Building Standards Commission, will be effective January 1, 2026.

4.6.2.3 Regional Regulations

The Southern California Association of Governments (SCAG) is the MPO for Imperial County, Los Angeles County, Orange County, Riverside County, San Bernardino County, Ventura County, and the 191 cities located within these counties. Moreno Valley is within

the Western Riverside Council of Governments' (WRCOG) subregion of SCAG, which encompasses the western 18 cities in Riverside County.

a. Sustainable Communities Strategy

SCAG is responsible for developing long-range regional plans and strategies for efficient multi-modal transportation. As the MPO and Regional Transportation Planning Agency, SCAG supports freeway construction projects, regional and local road improvements, train and bus transportation, railroad crossings, call boxes, ridesharing, congestion management efforts and long-term planning studies. Following CARB'S hearing on March 22, 2018, the regional vehicle-use reduction targets for automobiles and light duty trucks for SCAG are:

- 8 percent reduction from the 2005 per capita amount by 2020
- 19 percent reduction from the 2005 per capita amount by 2035

To achieve regional vehicle-use emission reduction targets, SCAG initially developed and adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in April 2016, and in September 2020 adopted Connect SoCal, the updated 2020-2045 RTP/SCS (SCAG 2020). On April 4, 2024, SCAG's Regional Council adopted Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]). On May 10, 2024, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approved Connect SoCal 2024, however, CARB's approval is still pending before it is fully certified. Connect SoCal and Connect SoCal 2024 are planning documents for the region that build upon and expand land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern.

b. Western Riverside Council of Government

The WRGOC is a joint power agency intended to coordinate regional planning efforts. WRCOG adopted its Economic Development & Sustainability Framework in December 2012 and a Subregional Climate Action Plan (Subregional CAP) in September 2014. The Framework identified measures that its member jurisdictions could implement to improve transportation planning, energy efficiency, and reduce GHG emissions; established goals to inform local action; and defined indicators for member jurisdictions to gauge measure effectiveness. The subsequent Subregional CAP recommends measures; many of these measures require joint implementation with support from both WRCOG staff and local "CAP coordinators" in member jurisdictions.

4.6.2.4 Local Regulations

Energy Efficiency and Climate Action Strategy

The City adopted its Energy Efficiency and Climate Action Strategy in October 2012. The strategy includes a comprehensive list of measures for the City to consider that are intended to reduce energy consumption, reduce water use, encourage recycling and waste diversion, promote use of alternative fuel vehicles, facilitate the use of renewable energy, or otherwise

reduce GHG emissions. Examples of policy measures intended to reduce energy use include the following:

- **R2-T1:** Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in VMT.
- **R2-T3:** Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.
- **R2-E2:** New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (PV) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off-site.
- **R2-E5:** New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards. (Reach Code).
- **R3-E1:** Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.
- **R3-L2:** Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

4.6.3 Methodologies for Determining Impacts

The Project does not specifically address any particular development project(s); therefore, impacts to energy resources are addressed generally, based on projected buildout of the 2024 GPU. Energy resources would be consumed during construction of future development and redevelopment under implementation of the 2024 GPU. Energy would also be consumed to provide operational lighting, heating, cooling, and transportation for future development. Building-related energy use under existing conditions has been estimated based on existing energy consumption data. Building-related energy use under buildout of the 2024 GPU were estimated utilizing the highest applicable Annual Energy Rates from the California Emissions Estimator Model (CalEEMod) for single- and multi-family residential uses, commercial/retail use, office use, and industrial use. Transportation-related energy use was analyzed by utilizing EMFAC fuel consumption data and VMT associated with existing conditions and buildout of the 2024 GPU.

4.6.4 Basis for Determining Significance

Thresholds used to evaluate impacts to energy resources are based on applicable criteria in the CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.6.5 Impact Analysis

4.6.5.1 Topic 1: Energy Consumption

Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Implementation of the Project would have the potential to impact energy supply due to the development that is anticipated to occur in response to projected population growth in the City. Depending on the types of future uses, impacts would need to be addressed in detail at the time specific projects are proposed. Consistent with CEQA Guidelines, impacts to energy resources could be significant if implementation of the Project would develop land uses and patterns that would cause the wasteful, inefficient, and unnecessary consumption of energy or the construction of new or retrofitted buildings that would have excessive energy requirements for daily operation. To better analyze the environmental effects associated with the Project, energy use is evaluated in three distinct categories:

a) Equipment energy use from construction of future development and redevelopment implemented under the Project;

b) Transportation energy use from people traveling to, from, and within the City; and

c) Building energy use within the City after buildout.

a. Construction-Related Energy Use

During construction, energy use would occur in two general categories: fuel use by vehicles used by workers commuting to and from the construction site, and fuel use by vehicles and other equipment to conduct construction activities. Fossil fuels used by construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements

which specify that equipment not in use for more than five minutes must be turned off (CCR Title 13, Section 2485). Project construction equipment would also be required to comply with the latest USEPA and CARB engine emissions standards, which require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is also growing recognition among developers, retailers, and building owners that sustainable construction is not prohibitively expensive, and that there is significant cost-savings potential in green building practices and materials.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

At the general plan level, it is too speculative to quantify the construction-related energy consumption of future development, either in total or by fuel type. Although the exact details of future development are not known at this time, there are no known conditions in the City that would require nonstandard equipment or construction practices that would increase fuel-energy consumption above typical rates. It should also be noted that all construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements, which would increase construction equipment fuel efficiency. In addition, Tier 3 vehicles can no longer be added to any fleet as of January 1, 2024. Therefore, future development would not result in the use of excessive amounts of fuel or other forms of energy during construction of future projects, and impacts would be less than significant.

General Construction Guidance

During construction, some incidental energy conservation would occur through compliance with State requirements that construction equipment not in use for more than five minutes be turned off. Construction equipment would also be required to comply with the latest USEPA and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption. Project-related construction activities would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools).

Any future development under implementation of the 2024 GPU and subject to CALGreen regulations is required to divert 65 percent of waste generated during construction from

landfills. Recycling construction and demolition waste not only keeps it from being transported to the landfill, but also reduces the "upstream" energy consumption from the manufacturing of virgin material.

Future construction activities associated with future development would also be required to monitor air quality emissions using applicable regulatory guidance such as the South Coast Air Quality Management District (SCAQMD) CEQA Guidelines. There are no aspects of implementation of the proposed 2024 GPU that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities.

As discussed above, there are no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State. Therefore, it is expected that construction fuel consumption associated with implementation of the Project would not be any more inefficient, wasteful, or unnecessary than other similar projects of this nature. Therefore, impacts to energy resources associated with the future developments' construction activities would be less than significant, and no mitigation is required.

b. Long-Term Impacts During Operation

Future development projects under implementation of the 2024 GPU would permanently increase the operational energy demand when compared to existing conditions. Existing conditions and operational energy consumption associated with the Project would occur from transportation-related fuel use, building energy (electricity and natural gas) use, and water use. The methodology for each category is discussed below. The estimated energy demand associated with future development projects under implementation of the 2024 GPU is also compared to the existing overall energy demand of the City to provide context for the projected changes in energy demand.

Transportation-Related Energy Use

Buildout of the Project would result in increased consumption of energy for transportation uses. Trips by individuals traveling to, from, and within the City would largely rely on passenger vehicles or public transit. Passenger vehicles would be mostly powered by gasoline, with some fueled by diesel or electricity. Public transit would be powered by diesel or natural gas, and could potentially be fueled by electricity. Additionally, the City experiences higher volumes of heavy truck traffic which is generally powered by diesel. In 2020, CARB adopted the Advanced Clean Trucks Regulation which requires manufacturers to sell zero-emission trucks as an increasing percentage of their annual state sales starting in 2035. As a result, the number of diesel-fueled heavy trucks will decrease over time.

As summarized in Table 3-3, Citywide Buildout Summary, in Chapter 3.0, Project Description, buildout of the Project would result in increases of approximately 64 percent in residential units, 27 percent in commercial square footage, 413 percent in office square footage, and 122 percent in light industrial square footage compared to existing conditions. Due to projected growth associated with the Project, it is expected that VMT would increase. The City generates 5,255,468 daily (1.92 billion annual) VMT in the existing condition and

buildout of the Project would generate 7,488,713 daily (2.73 billion annual) VMT. Fuel consumption associated with the Project based on average fuel efficiency from the model for buildout year 2040 are shown in Table 4.6-10, 2024 GPU Buildout Transportation Fuel Consumption.

Table 4.6-10
2024 GPU Buildout Transportation Fuel Consumption

Vehicle Fuel Type	Existing 2024	Proposed 2021 GPU (2040)	Net Change
	Gallons		
Diesel	1,276,186	1,752,111	+475,925
Gasoline[1]	148,722,926	243,947,394	+95,224,468
Liquefied Natural Gas	10,985	18,490	+7,505
Total	**150,010,097**	**245,717,995**	**+95,707,898**
1. Includes gasoline consumption by plug-in hybrid vehicles.			

While implementation of the Project would result in an increase in VMT and fuel consumption, the Project would focus future development and redevelopment within the proposed Concept Areas, which would reduce reliance on vehicular travel and associated fuel consumption.

Additionally, the City is currently served by eight local bus routes (Riverside Transit Agency Routes 11, 16, 18, 19, 19a, 20, 31, and 41), and the Metrolink line is located at the City's western boundary. The 2024 GPU Transportation Element provides key goals to increase the use of public transit, improve traffic congestion, and enhance the range of transportation options in the City. Implementation of these key goals would serve to further reduce VMT below the 7,488,713 daily (2.73 billion annual) VMT estimated for buildout of the proposed 2024 GPU land use plan. Therefore, implementation of the Project would not create a land use pattern that would result in a wasteful, inefficient, or unnecessary use of transportation-related energy, and impacts would be less than significant.

Building-Related Energy Use

As future development within the City is implemented, new or renovated buildings would use electricity and natural gas to run various appliances and equipment, including space and water heaters, air conditioners, ventilation equipment, lights, and numerous other devices. Generally, electricity use is higher in the warmer months due to increased air conditioning needs, and natural gas use is highest when the weather is colder as a result of high heating demand. Residential uses would likely see the most energy use in the evening as people return from work, while most nonresidential facilities would have high energy use during normal business hours and lower levels at other times.

The 2040 Climate Action Plan includes Building Energy measures that include transitioning buildings to electric systems, increasing access to renewable electricity, and enhancing energy efficiency in buildings. As a worst case, the analysis herein does not account for the electrification of new development and increases in energy efficiency.

Existing energy consumption data for residential and nonresidential uses were obtained from SCE, Moreno Valley Utility, and the Southern California Gas Company. Residential and nonresidential energy consumption was projected to year 2040 for the proposed 2024 GPU land use plan based on CalEEMod model default consumption rates. The electricity associated with indoor operational water use is estimated based on the CalEEMod default annual water use and energy intensity factor per gallon of water. These projections also considered energy savings associated with implementation of 2019 Title 24 standards in newly constructed buildings, which is accounted for in CalEEMod default factors. Buildout energy assumes that existing development would remain in 2040 and that the increase in residential and nonresidential use would be developed in accordance with 2019 Title 24 standards. Therefore, as existing uses are turned over and redeveloped in accordance with current energy efficiency standards, citywide energy consumption would be reduced. Table 4.6-11 summarizes the projected energy use within the City under existing conditions and under buildout of the proposed 2024 GPU land use plan.

Table 4.6-11
Moreno Valley Existing and Future Annual Electricity and Natural Gas Use

Land Use Sector	Source	Annual Energy Consumption	
		Existing Conditions (2024)	Total 2040 Citywide Consumption
		Electricity (GWh/year)	
Residential	Area[1]	272.70	522.79
	Water[2]	17.63	25.59
	Total Electricity	290.33	548.38
Nonresidential			
	Area[1]	341.43	787.73
	Water[2]	52.05	113.64
	Total Electricity	393.48	901.37
Citywide Total		**683.81**	**1,449.75**
	Natural Gas (therms/year)		
Residential		18,149,722.45	25,257,259.45
Nonresidential		2,202,824.00	20,517,304.00
Citywide Total		20,352,546.45	45,774,563.45

1. Existing electricity consumption calculated based on existing consumption data from SCE and MVU. Future electricity data and natural gas based on CalEEMod defaults. Energy consumption values do not account for reductions due to increases in energy efficiency from compliance with future Building Energy Efficiency Standards and updates to CALGreen.
2. Indoor water consumption and associated electricity consumption for water conveyance based on CalEEMod defaults.

As shown in Table 4.6-11 above, buildout of the Project would result in an increase in electricity and natural gas usage compared to existing conditions due to anticipated growth. As discussed above, it is assumed that all existing development would remain under the 2040 buildout condition. As the turnover of existing uses occurs, future development implemented under the Project would be required at a minimum to meet the mandatory energy requirements of CALGreen and the California Energy Code (Title 24, Part 6 of the CCR) in effect at the time of development, and would benefit from the efficiencies associated with these regulations as they relate to building heating, ventilating, and air conditioning mechanical systems, water heating systems, and lighting. Additionally, rebate and incentive

programs that promote the installation and use of energy-efficient plug-in appliances and lighting would be available as incentives for future and existing development.

California's Energy Efficiency Standards for Residential and Non-Residential Buildings create uniform building codes to reduce California's energy use and provide energy efficiency standards for residential and non-residential buildings. These standards are incorporated within the California Building Code and are expected to substantially reduce the growth in electricity and natural gas use. 2022 Title 24 standards for new residential and nonresidential buildings focus on encouraging electric heat pump technology and use, promote electric-ready buildings to get owners to use cleaner electric heating, cooking, and vehicle charging, expand solar photovoltaic systems and battery storage systems to reduce reliance on fossil fuel transportation and power plants.

Regarding water energy conservation, implementation of the 2024 GPU would incorporate drought-tolerant landscaping throughout portions of the planning area. Water-efficient irrigation controls would also be used in landscape areas. Buildings would incorporate water-efficient fixtures and appliances, to comply with Title 24.

It should be noted that SCE and MVU are subject to California's Renewable Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase total procurement from eligible renewable energy resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat.

Additionally, the CAP includes a number of GHG reduction goals related to energy use and energy conservation (see Section 4.4). Therefore, implementation of the Project would not create a land use pattern that would result in a wasteful, inefficient, or unnecessary use of building-related energy, and impacts would be less than significant.

4.6.5.2 Topic 2: Renewable Energy or Energy Efficiency

Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The applicable State plans that address renewable energy and energy efficiency are CALGreen, the California Energy Code, and RPS. As discussed under Section 4.6.5.1 above, future development implemented under the Project would be required at a minimum to meet the mandatory energy requirements of CALGreen and the California Energy Code in effect at the time of development. SCE and MVU, the electricity providers for the City, are currently meeting RPS goals and are on track to achieve future RPS goals. Thus, electricity provided to the City is increasingly coming from renewable sources. Implementation of the Project would not interfere with SCE's and MVU's progress towards achieving RPS goals. Therefore, implementation of the Project would not conflict with or obstruct implementation of

CALGreen and the California Energy Code, or with SCE's and MVU's implementation of RPS, and impacts would be less than significant.

4.6.6 Cumulative Analysis

Construction and operation of future development projects under implementation of the Project would result in the use of energy, but not in a wasteful manner. The use of energy would not be substantial in comparison to existing electricity, natural gas, and fuel demand. SCE, MVU, and SoCalGas would review the estimated electricity consumption associated with implementation of the Project to ensure that the estimated power requirement would be part of the total load growth forecast for their service area and accounted for in the planned growth of the power system. It should be noted that the planning projections of SCE, MVU, and SoCalGas consider planned development for their service areas and are in and of themselves providing for cumulative growth. Therefore, it is likely that the cumulative growth associated with the related projects is already accounted for in the planning of future supplies to cover projected demand.

Transportation fuels are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, current crude oil production would be sufficient to meet 50 years of worldwide consumption. As such, it is expected that existing and planned transportation fuel supplies would be sufficient to serve the construction and operational demand associated with implementation of the General Plan Update. New capacity or supplies of energy resources would not be required.

New development and redevelopment under implementation of the 2024 GPU would be required to comply with the California Energy Code, Title 24 requirements in place at the time of building permit issuance. Each update to the Energy Code has historically incorporated more stringent energy efficiency requirements, and the State is headed towards a net-zero energy goal for new development. Therefore, redevelopment would replace older, less energy efficient buildings with more energy efficient buildings that meet current energy efficiency standards. Furthermore, the City's CAP includes additional energy efficiency requirements that would be required of future discretionary developments, and all development is required to comply with Title 24 requirements. Incorporating applicable energy standards into future development projects under implementation of the 2024 GPU would ensure that implementation of the 2024 GPU would not result in the use of energy in a wasteful manner and would help facilitate state and local goals for energy efficiency.

Implementation of the 2024 GPU and new development projects located within the cumulative study area would also be required to comply with all applicable federal, State, and local measures aimed at reducing fossil fuel consumption and the conservation of energy. The anticipated impacts from implementation of the 2024 GPU, in conjunction with cumulative development in the vicinity, would increase urbanization and result in increased energy use. Potential land use impacts are site-specific and require evaluation on a case-by-case basis. As noted above, implementation of the 2024 GPU would not result in significant impacts to State or local plans for renewable energy or energy efficiency. Therefore, the 2024

GPU and identified cumulative projects are not anticipated to result in a significant cumulative impact. Therefore, potential impacts are considered less than significant.

4.6.7 Significance of Impacts before Mitigation

4.6.7.1 Topic 1: Energy Consumption

Energy conservation measures required by applicable energy conservation regulations (e.g., CALGreen, Title 24) and energy conservation policies included in the proposed 2024 GPU, and the CAP would support the minimization of energy consumption from operations associated with future development. Therefore, implementation of the Project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

4.6.7.2 Topic 2: Renewable Energy or Energy Efficiency

Future development allowed under the Project would implement applicable regulation that would ensure development would be energy efficient. Therefore, implementation of the Project would not conflict with or obstruct implementation of CALGreen and the California Energy Code, or with SCE and MVU's implementation of RPS, and impacts would be less than significant.

4.6.8 Mitigation

4.6.8.1 Topic 1: Energy Consumption

Impacts would be less than significant. No mitigation is required.

4.6.8.2 Topic 2: Renewable Energy or Energy Efficiency

Impacts would be less than significant. No mitigation is required.

4.6.9 Significance of Impacts after Mitigation

4.6.9.1 Topic 1: Energy Consumption

Impacts would be less than significant. No mitigation is required.

4.6.9.2 Topic 2: Renewable Energy or Energy Efficiency

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Geology and Soils remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.7 Geology/Soils

This section analyzes potentially significant impacts related to geology and soils that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan. The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area. This analysis relies on secondary source information including but not limited to soils data from the California Geological Survey and United States Geological Survey fault and geologic mapping.

4.7.1 Existing Conditions

The city lies in the northern portion of the Peninsular Ranges Physiographic Province of California, at the eastern margin of a structural block known as the Perris Block. This structural block is a mass of granitic rock, generally bound by the San Jacinto Fault, the Elsinore Fault, and the Santa Ana River. The Perris Block has been vertically uplifted several thousand feet. The granitic mountain areas of the Perris Block, including the Box Springs Mountains and the Mount Russell area, are underlain primarily by quartz diorite bedrock. The area is characterized by many rock outcrops and large weathered boulders.

The geologic and seismic setting of Planning Area is dominated by the proximity of the Holocene-active San Jacinto Fault, which traverses the northeastern and eastern city limits (Figure 4.7-1). The potential for major earthquake damage throughout the Planning Area is from activity along this fault zone (Moreno Valley 2006a).

4.7.1.1 Surface Rupture

The Planning Area is located within the seismically active southern California region. Earthquakes resulting from fault movement can result in surface rupture along an active or potentially active fault. The State of California has identified faults that represent a hazard of surface rupture as Alquist-Priolo earthquake fault zones. As shown in Figure 4.7-1, the San Jacinto fault zone, which has been categorized as an Alquist-Priolo earthquake fault zone, traverses the northeastern and eastern boundary of the Planning Area. The San Jacinto fault zone is composed of several parallel faults that together constitute the zone. There are three branches of the San Jacinto Fault in the southeast corner of the study area. The western branch is sometimes referred to as the Casa Loma Fault; the eastern branch, the Claremont Fault. The Farm Road Fault was identified in 1992 in the southeastern portion of the study area. The Casa Loma Fault within the city limits is not identified as an Alquist-Priolo earthquake fault zone. Insufficient information is available to determine if the fault is active (Moreno Valley 2006a).

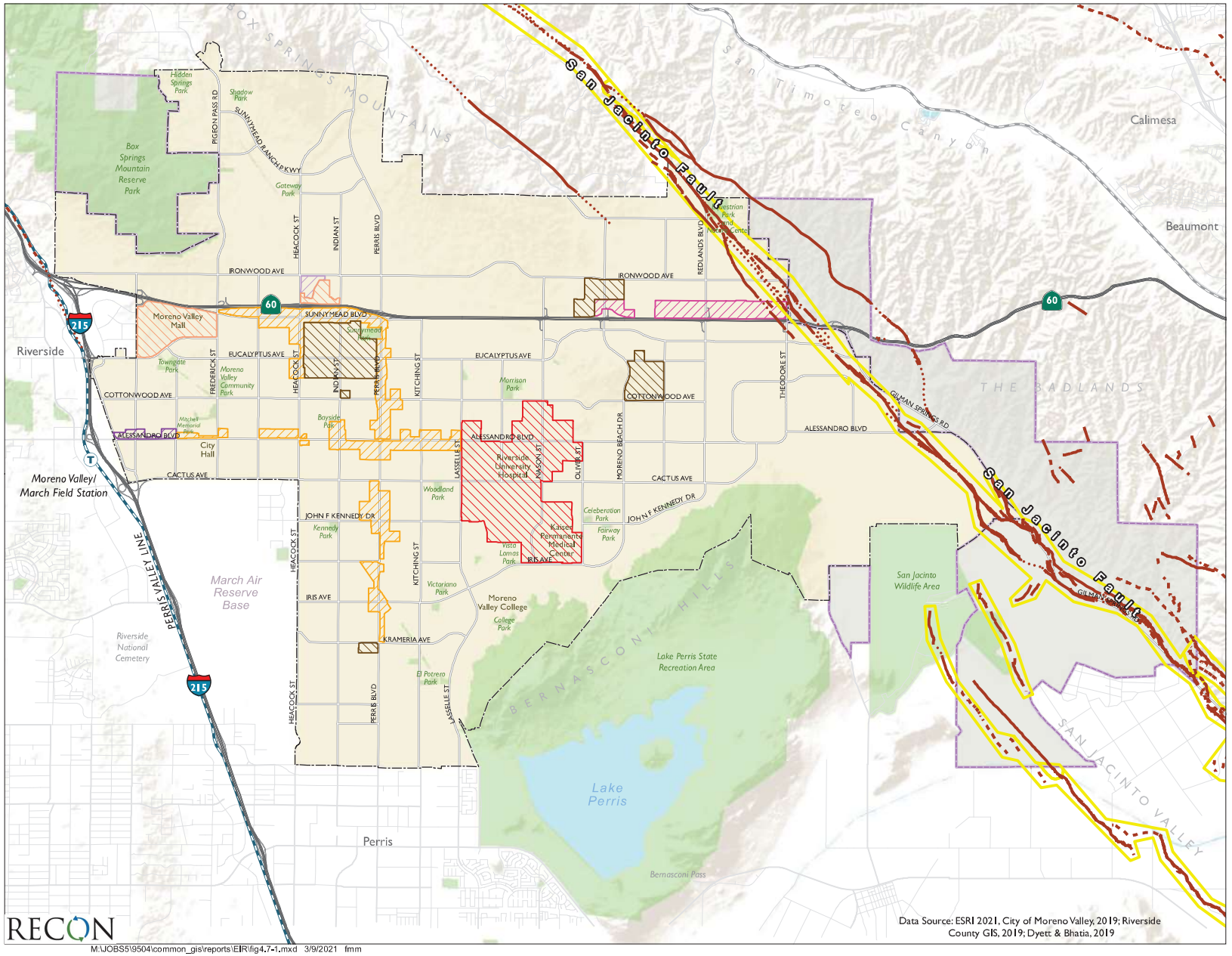


FIGURE 4.7-1
Fault Zones

4.7.1.2 Ground Shaking

Ground shaking is the effect of surface motion generated by an earthquake that results in the vast majority of damage during seismic events. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Seismic waves propagating through the Earth's crust are responsible for the ground vibrations normally felt during an earthquake. Structures throughout the Planning Area could be affected by ground shaking during a seismic event associated with the San Jacinto fault zone. Additionally, seismic events associated with the active San Andreas Fault located approximately 15 miles northeast and the active Elsinore Fault located approximately 17 miles southwest could also generate ground shaking within the Planning Area.

4.7.1.3 Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high -intensity ground shaking. Liquefaction occurs when three general conditions exist: (1) shallow groundwater; (2) low -density non-cohesive (granular) soils; and (3) high -intensity ground motion. Liquefaction is typified by a buildup of pore-water pressure in the affected soil layer to a point where a total loss of shear strength occurs, causing the soil to behave as a liquid. Studies indicate that saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential.

Figure 4.7-2 presents liquefaction susceptibility classifications throughout the Planning Area, and Table 4.7-1 presents the acreage of land within the Planning Area designated under each liquefaction susceptibility classification. As shown in Figure 4.7-2, the majority of the Planning Area is classified as having low or moderate potential for liquefaction susceptibility. Small amounts of land within the western and southern portion of the Planning Area are classified as having high potential for liquefaction susceptibility, and a small amount of land along the southern border is classified as having very high potential for liquefaction susceptibility. However, geotechnical analysis completed for recent site-specific projects located within the area identified as having a high liquefaction potential north of Cactus Avenue did not identify any soils within the proposed footprints with high potential for liquefaction.

Table 4.7-1
Liquefaction Susceptibility Classification Acreages

Row Labels	Acres	Percent
Very High	38.01	0.09%
High	625.44	1.46%
Moderate	14,204.81	33.10%
Low	16,026.75	37.34%
Very low	649.33	1.51%
No Rating	11,372.66	26.50%
TOTAL	**42,917.00**	**100.00%**
SOURCE: Riverside County GIS 2019.		

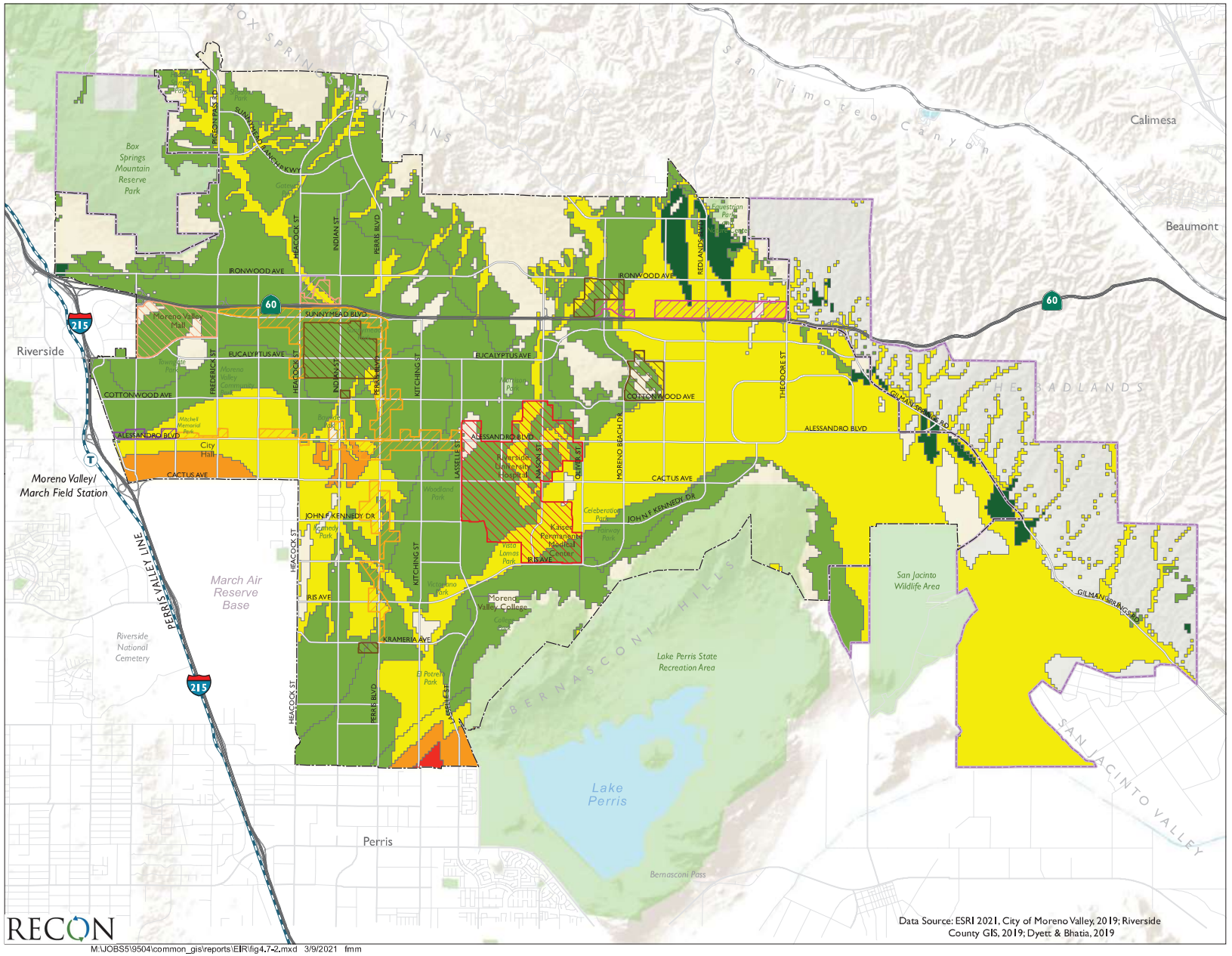


FIGURE 4.7-2
Liquefaction

4.7.1.4 Soil Stability and Landslides

Five soil associations occur within the Planning Area. The five soil types are: Monserate Arlington-Exeter; Hanford-Tujunga-Greenfield; Cieneba-Rock Land-Fallbrook; San Emigdio-Grangeville-Metz; and the Badlands-San Timoteo. Each is briefly described below.

Monserate-Arlington-Exeter. This soil association is found adjacent to and within the eastern half of the March Air Reserve Base. It consists of well-drained soils that developed in alluvium from predominantly granitic materials. Soil stability is considered fair to good with minimal erosion potential.

Hanford-Tujunga-Greenfield. This soil association is found within the central portion of the study area, generally extending northeast to southeast of March Air Reserve Base. It consists of well drained to somewhat excessively drained soils, developed in granitic alluvium. Soil stability is considered poor to fair with significant erosion potential.

Cieneba-Rock Land-Fallbrook. This soil association is found on uplands located in the Box Springs Mountains area, and extends east to Reche Canyon, and into the Mount Russell area. It consists of somewhat excessively drained soils on undulating steep slopes. Soil stability is generally considered fair with marginal potential for erosion.

San Emigdio-Grangeville-Metz. This soil association is found along the western side of Gilman Springs Road. It consists of well-drained soils on nearly level to steep slopes. Soil stability is considered poor to fair with significant potential for erosion.

Badlands-San Timoteo. This soil association is found along the northern portion of Gilman Springs Road into the Badlands region. It consists of well-drained soils on steep to very steep slopes. The soils are variable consisting of soft sandstone, siltstone, and beds of gravel. Soil stability is considered poor to fair with significant potential for erosion.

The primary factors that determine an area's susceptibility to slope instability are the underlying geologic and soils characteristics. As described, some of these soils have poor to fair stability and are considered to be potentially expansive. Expansive soils are prone to collapse and are commonly associated with wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. For example, the abundant shales and siltstones underlying the Badlands are highly porous and do not hold together well when wet, which can lead to slope instability and landslides. Secondary factors contributing to slope instability and landslides include rainfall and earthquakes.

Landslides occur when masses of rock, earth, or debris move down a slope, including rock falls, deep failure of slopes, and shallow debris flows. Landslides are influenced by human activities such as grading and other construction activities, irrigation of slopes, mining activity, and by natural factors such as precipitation, geology/soil types, surface/subsurface flow of water, and topography. Frequently, they may be triggered by other hazards such as floods and earthquakes. The majority of the city is relatively flat and has been assigned a landslide susceptibility class of III (Low Risk) by the California Geological Survey

(Figure 4.7-3). However, some areas within the northern, northeastern, and southeastern portions of the Planning Area have been assigned landslide susceptibility class ranging from V (Moderate Risk) to X (High Risk). Some areas within the central portion of the city have also been assigned a landslide susceptibility class ranging from V (Moderate Risk) to X (High Risk).

4.7.1.5 Paleontological Resources

Figure 4.7-4 presents the paleontological sensitive ratings for soils located within the Planning Area. Sensitivity ratings are based on the California Department of Transportation Standard Environmental Reference guidelines for paleontology, which classifies geologic units and formations as having high, low, or no potential for paleontological resources (Caltrans 2017). Sensitivity is also based on depth of excavation. Some geologic units and formations have low potential at a depth of excavation ranging from 0 to 10 feet, but have high sensitivity when the depth of excavation exceeds 10 feet.

4.7.2 Applicable Regulatory Requirements

4.7.2.1 State Regulations

a. Earthquake Fault Zoning Act (Alquist-Priolo Act)

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the act, the state geologist has established regulatory zones (known as earthquake fault zones) around surface traces of active faults. These have been mapped for affected cities, including Moreno Valley. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied by a geologic report, prepared by a geologist registered in the state of California, that is directed to the problem of potential surface fault displacement through a project site.

b. Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act (SHMA) was adopted by the state in 1990 to protect the public from the effects of nonsurface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, ground amplification or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey (CGS) is the primary agency responsible for the implementation of the SHMA. The CGS prepares maps identifying seismic hazard zones and provides them to local governments, which include areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. SHMA requires responsible agencies to only approve projects within these zones following a site-specific investigation to determine if the hazard is present, and if so, the inclusion of appropriate mitigation(s). In addition, the SHMA requires real estate sellers and agents at the time of sale to disclose whether a property is within one of the designated seismic hazard zones.

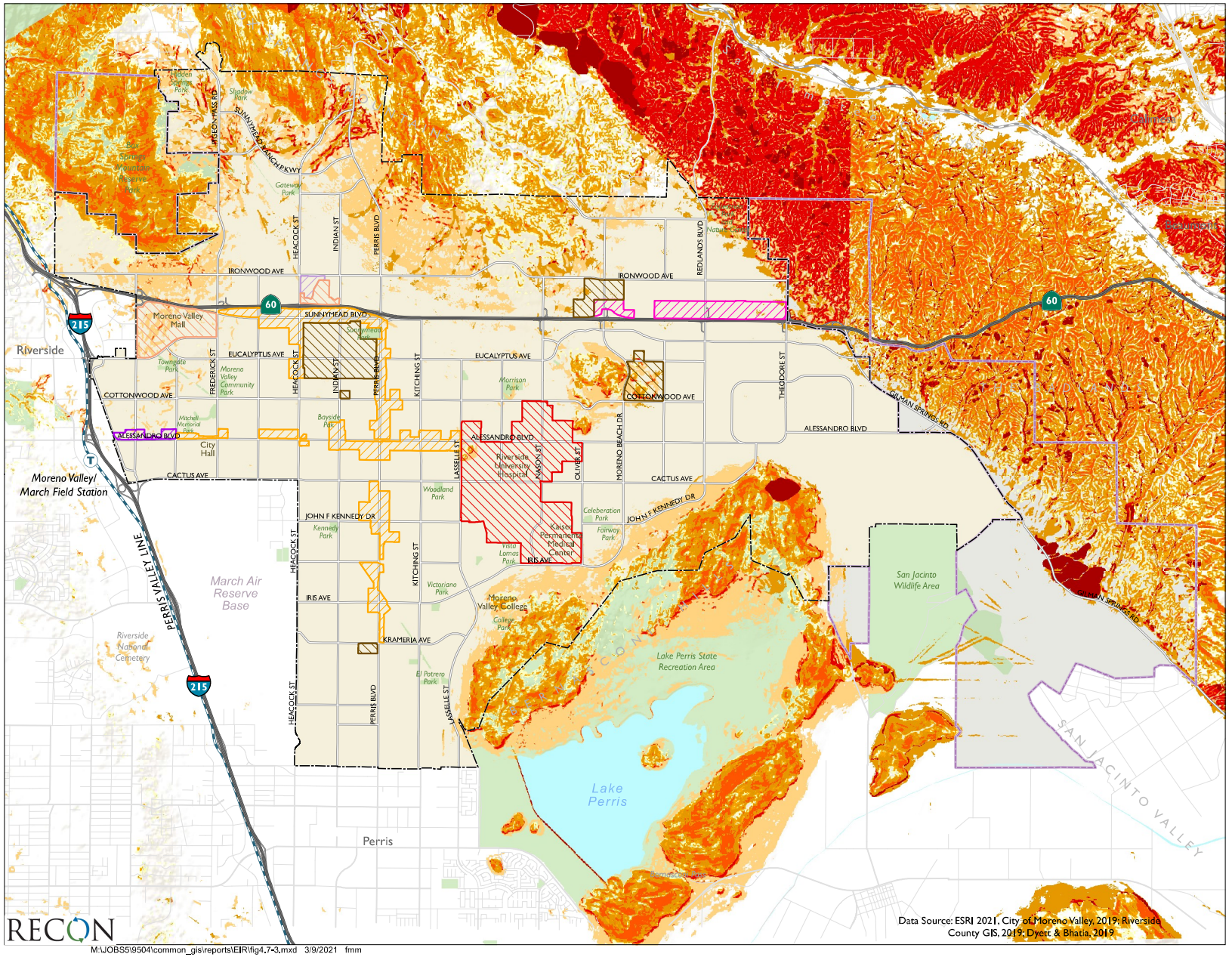


FIGURE 4.7-3
Landslides

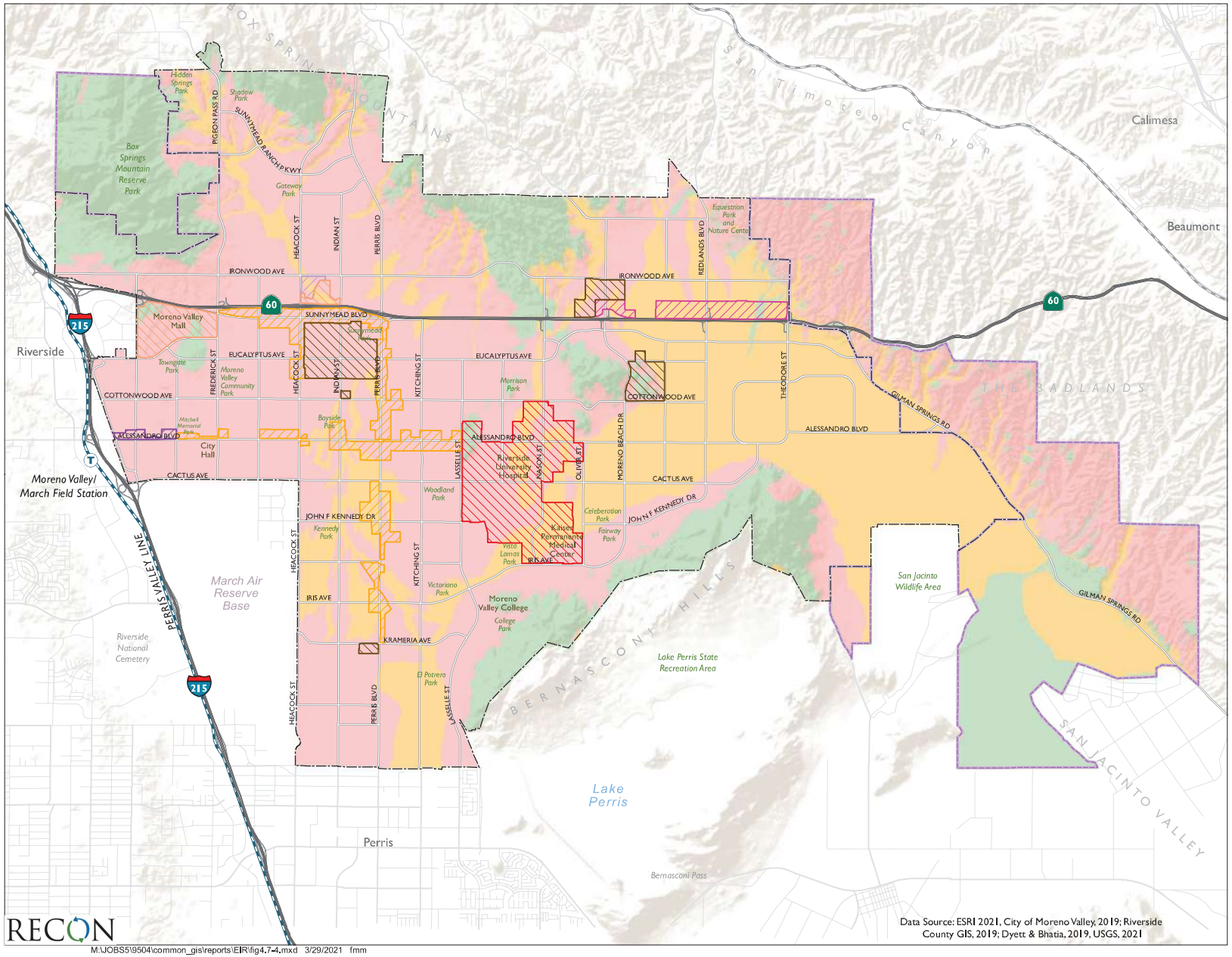


FIGURE 4-7.4
Paleontological Sensitivity

c. California Building Standards Code (Title 24)

Title 24 of the California Code of Regulations (CCR) provides state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Cities and counties are required by state law to enforce CCR Title 24, and may adopt ordinances making more restrictive requirements than provided by CCR Title 24 due to local climatic, geological, or topographical conditions.

4.7.2.2 Local Regulations

a. Municipal Code

Title 8, Chapter 8.21 Grading Regulations of the Municipal Code contains requirements that address potential geological hazards associated with new development. Municipal Code Section 8.21.050 (Grading Permit Requirements) specifies that a geotechnical report is required for all grading projects unless otherwise waived by the city engineer. Recommendations included in the reports and approved by the city engineer, shall be incorporated into the grading plans and specifications. A preliminary soil report, preliminary engineering geology report and/or seismicity report may be required depending on site specific conditions. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. The required reports must provide specific recommendations to facilitate a safe and stable development.

b. Local Hazard Mitigation Plan

The City developed the Local Hazard Mitigation Plan (LHMP), most recently updated in May 2017, to identify the hazards, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term natural or man-made hazard risks to human life and property for the city and its residents. The goals of the LHMP are to:

1. Protect life, property, and the environment;
2. Provide public awareness;
3. Protect the continuity of government; and
4. Improve emergency management, preparedness, collaboration and outreach.

The LHMP identifies local faults that may generate earthquakes and identifies potential vulnerabilities within the city that could be adversely affected by seismic events. The LHMP also identifies a mitigation strategy for reducing losses associated with seismic events.

Local fault mapping presented in the LHMP is consistent with the fault mapping presented in Figure 4.7-1. The LHMP states that the San Jacinto fault zone, which traverses the northeastern boundary of the Planning Area, is considered one of the more seismically active fault zones in southern California and has the potential to host a 7.2 magnitude earthquake. The LHMP documents historic southern California earthquakes that affected the Moreno Valley region. In 1923, the North San Jacinto Fault earthquake damaged the San Bernardino

and Redlands area. The epicenter was located just northeast of the Planning Area in San Timoteo Canyon, and is the last known time that this fault ruptured in this area. The largest earthquake to occur within 100 miles of the Planning Area was the 7.4 magnitude Hector Mine earthquake in 1999 that occurred approximately 61 miles from the city. Additional earthquakes that have occurred within the Moreno Valley region since 1992 are presented in Table 4.7-2.

Table 4.7-2
History of Major Southern California Earthquakes Since 1992

Year	Richter Scale Magnitude	Description
1992	7.2	Occurred near Landers, California and caused the rupture of five different faults. Those faults were: Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock.
1992	7.3	Occurred 3 hours after the Landers Earthquake with an epicenter near Big Bear, California, just 34.4 miles from Moreno Valley.
1994	6.8	Northridge Earthquake occurred in a neighborhood of the city of Los Angeles and is located 78.8 miles from Moreno Valley.
1999	7.4	Hector Mine Earthquake, located 25 miles from the Landers Earthquake and just 61 miles from Moreno Valley.
2010	5.4	Borrego Springs Earthquake believed by seismologists to have been possibly triggered by the strong earthquake which occurred near Calexico in 2010.
2016	4.3	California Governor's Office of Emergency Services issued an earthquake advisory for all southern California counties following a series of small magnitude earthquakes that occurred in Bombay Beach (located in Imperial County and south of where the San Andreas fault ends). This swarm included a 4.3 magnitude quake on September 26.
2019	7.1	Occurred roughly 11 miles northeast of Ridgecrest, California or approximately 185 miles north of Moreno Valley.

4.7.3 Methodologies for Determining Impacts

The potential for significant impacts associated with the proposed GPU has been determined based upon review of existing secondary source information and data relative to the geology and soils resources available for the Planning Area.

4.7.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to geology and soils are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault (Refer to Division of Mines and Geology Special Publication 42);
ii) Strong seismic ground shaking;
iii) Seismic-related ground failure, including liquefaction;
iv) Landslides;

2) Result in substantial soil erosion or the loss of topsoil;
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or
5) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.7.5 Impact Analysis

4.7.5.1 Topics 1 and 3: Seismic Hazards and Unstable Geology

Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42); (ii) strong seismic ground shaking? (iii) seismic-related ground failure, including liquefaction; or (iv) landslides? Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The Planning Area is underlain primarily by Perris Bedrock, which is considered to be a relatively stable geologic formation. However, due to its location within southern California, and the proximity of major fault lines throughout the Planning Area, impacts associated with seismic events could occur.

a. Fault Rupture

As shown in Figure 4.7-1, the San Jacinto fault zone, which has been categorized as an Alquist-Priolo earthquake fault zone, traverses the northeastern and eastern boundary of the Planning Area. Specifically, the eastern portion of the Highway Office/Commercial Concept Area falls within the San Jacinto fault zone. Although the San Jacinto fault zone would be the primary source of potential damage due to fault rupture, all development within the Planning Area would be susceptible to damage due to the seismically active nature of the region. However, the Safety Element of the 2021 GPU includes the following goals, policies, and actions that would address potential geologic and seismic hazards.

Goal

S-1: Protect life and property from natural and human made hazards.

Policies

S.1-1 Continue to restrict the development of habitable structures within Alquist-Priolo Earthquake Fault Zones consistent with state law.

S.1-2 In areas of high liquefaction risk (see Map S-2), require that project proponents submit geotechnical investigation reports and demonstration that the project conforms to all recommended mitigation measures prior to City approval.

S.1-3 Require geotechnical studies for new development in areas where sewers are not available to ensure that the surrounding soil can support alternative wastewater disposal systems.

S.1-4 Ensure that structures intended for human occupancy are designed and constructed to retain their structural integrity when subjected to seismic activity, in accordance with the California Building Code.

S.1-5 Continue to regulate development on hillsides where average slope is greater than 10 percent and limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.

Actions

S.1-A Implement the seismic upgrade projects identified in the LHMP for overcrossing bridges at State Route 60 (SR-60)/Moreno Beach, SR-60/Redlands Avenue, and SR-60/World Logistics Parkway to ensure the seismic safety of critical transportation infrastructure in the city.

S.1-B Use the building inspection program to inventory and evaluate earthquake hazards in existing buildings, especially buildings with unreinforced masonry (URM), using the most current seismic design standards and hazard reduction measures. Explore measures to encourage building owners to upgrade and retrofit structures to render them seismically safe.

Additionally, Title 8, Chapter 8.21 Grading Regulations of the Municipal Code specifies that a geotechnical report is required for all grading projects, and a preliminary soil report, preliminary engineering geology report, and/or seismicity report may be required depending on site specific conditions. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. The required reports must provide specific recommendations to facilitate a safe and stable development. Therefore, adherence to GPU Safety Element goals and policies and Municipal Code requirements would ensure that future development would

not cause substantial adverse effects associated with fault rupture, and impacts would be less than significant.

b. Ground Shaking

As described in Section 4.7.1.2 above, structures throughout the Planning Area could be affected by ground shaking during a seismic event associated with the San Jacinto fault zone that traverses the northeastern and eastern boundary of the Planning Area, as well as the San Andreas Fault located approximately 15 miles northeast and the Elsinore Fault located approximately 17 miles southwest. The project would increase the number of people and structures that could be exposed to ground shaking during a seismic event. However, future development would be required to comply with the GPU Safety Element goals and policies and Municipal Code requirements described in Section 4.7.5.1.b above. Therefore, adherence to GPU Safety Element goals and policies and Municipal Code requirements would ensure that future development would not cause substantial adverse effects associated with ground shaking, and impacts would be less than significant.

c. Liquefaction and Landslide

Liquefaction susceptibility ranges throughout the Planning Area from very low with deep groundwater in the northern and eastern portions of the city to very high with shallow groundwater generally west of Perris Boulevard. The areas which are subject to high and very high liquefaction potential are largely already developed (see Figure 4.7-2). Future development and redevelopment would primarily be focused within Concept Areas, which would be located within portions of the Planning Area where liquefaction risk is low. However, future development would also occur outside the Concept Areas, which may be located in areas designated with a higher liquefaction susceptibility rating.

Landslide susceptibility areas within the Planning Area are shown in Figure 4.7-3. While most of the city is flat, there are some portions of the city that have been assigned moderate and high risk for landslide, largely in slope areas. Although the Concept Areas would primarily be located within low risk areas the Residential Density Change area located at Moreno Beach Drive and Cottonwood Avenue has been assigned a moderate landslide susceptibility rating. Additionally, future development would also occur outside the Concept Areas, which may be located in areas designated with a higher landslide susceptibility rating.

All future development would be required to adhere to relevant regulations contained in the Municipal Code, including Municipal Code Section 8.21.050 which specifies that a geotechnical report would be required for all grading projects, unless otherwise waived by the city engineer. The required geotechnical report requirement would provide specific recommendations to facilitate a safe and stable development. Additionally, future development would be required to adhere to applicable GPU Safety Element goals and policies. Therefore, adherence to GPU Safety Element goals and policies and Municipal Code requirements would ensure that future development would not cause substantial adverse effects associated with liquefaction or landslides, and impacts would be less than significant.

4.7.5.2 Topic 2: Soil Erosion

Would the project result in substantial soil erosion or the loss of topsoil?

As detailed in Section 4.7.1.4, some soil types within the Planning Area are relatively stable, while others may be susceptible to collapse that may pose a hazard to new development and result in substantial soil erosion. Grading, excavation, demolition, and construction activities associated with future development would increase the potential to expose topsoil to erosion. While graded or excavated areas and fill materials would be stabilized through efforts such as compaction and installation of hardscape and landscaping, erosion potential would be higher during construction activities as the plan is built out. Erosion and sedimentation would primarily be a concern during construction phases as future developed areas would be stabilized through the installation of hardscape, landscaping, or native revegetation as appropriate. Future development would also incorporate long-term water quality controls pursuant to storm water standards including the National Pollutant Discharge Elimination System (NPDES) Municipal Permit requirements. Measures implemented to avoid or reduce erosion and sedimentation effects are discussed in Section 4.10, Hydrology and Water Quality. Short-term erosion and sedimentation impacts would be addressed through conformance with the NPDES and associated Municipal Code requirements (Title 8, Chapter 8.10 Stormwater/urban Runoff Management and Discharge Controls). These regulations required erosion and sedimentation control during construction and implementation of best management practices to avoid erosion and off-site drainage. Municipal Code Title 9, Chapter 9.17 Landscape and Water Efficiency Requirements provides additional guidance for erosion control and slope planting (Section 9.17.110). Therefore, adherence to applicable Municipal Code requirements would ensure that future development would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

4.7.5.3 Topic 4: Expansive Soils

Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

As described in Section 4.7.1.4 above, some of the soils that occur within the Planning Area have poor to fair stability and are considered to be potentially expansive. Development within these soils could result in a significant impact due to the soils inability to support the proposed structures, especially during major rain events and/or flash floods. Future development would be required to adhere to policies included in the Safety Element of the GPU that support focusing development where risk to property and people from natural disasters would be minimized. Additionally, future development would be evaluated during site specific discretionary reviews for consistency with applicable Safety Element policies and Municipal Code requirements for project-specific geotechnical reports. Therefore, adherence to GPU Safety Element goals and policies and Municipal Code requirements would ensure that future development would not create substantial direct or indirect risks associated with expansive soils, and impacts would be less than significant.

4.7.5.4 Topic 5: Paleontological Resources and Unique Geology

Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As shown in Figure 4.7-4, the western portion of the Planning Area is primarily classified with a high paleontological sensitivity rating, while the eastern portion of the Planning Area is classified as having a low paleontological sensitivity rating, so long as excavation does not exceed 10 feet. Impacts would be most likely to occur in native soil that has not been previously disturbed. Many areas that are classified with a high paleontological sensitivity rating have already been developed. Therefore, redevelopment projects within these areas that do not exceed the original depth of excavation are unlikely to encounter paleontological resources. Additionally, some sites that are currently vacant may have been disturbed during mass grading associated with adjacent project, and therefore are unlikely to possess any paleontological resources. The project has been designed to minimize impacts to native soil by primarily focusing on future development and redevelopment within the proposed Concept Areas. Nonetheless, construction-related ground-disturbing activities could result in significant impacts (loss) of nonrenewable paleontological resources. Because site-specific details and locations of future development projects are not known at this program-level of analysis, impacts to paleontological resources would be potentially significant.

Regarding unique geology, the city is largely flat with the exception of a few areas with rock outcroppings. Additionally, areas surrounding the city such as the badlands have unique landforms. The GPU does not propose any land use changes in the badlands and retains a low density residential designation. Rock outcrop areas within the city are not proposed for land use changes. Therefore, the project would not destroy a unique geologic feature, and impacts would be less than significant.

4.7.6 Cumulative Analysis

Future development could increase the number of people exposed to seismic and geologic hazards, and erosion rates could be accelerated by earthwork for new construction. Additionally, increased development could encroach on areas with paleontological resources which could be lost if not monitored properly. Therefore, the project could contribute to a cumulatively significant impact related to geology and soils, including paleontological resources. However, all future development would be required to adhere to all relevant Municipal Code regulations and proposed policies contained in the Safety Element of the GPU. Specifically, future projects would be required to submit geotechnical reports to identify constraints and develop engineering parameters, the implementation of which would ensure potential impacts related to seismic and geological hazards would be less than significant. Implementation of mitigation measure PAL-1 described below would reduce impacts related to paleontological resources to a level less than significant. Therefore, the project would not contribute to a cumulative impact related to geology and soils.

4.7.7 Significance of Impacts before Mitigation

4.7.7.1 Topics 1 and 3: Seismic Hazards and Unstable Geology and Topic 4: Expansive Soils

Future development would be required to adhere to GPU Safety Element policies supporting the safety of future land uses throughout the Planning Area, thereby minimizing potential adverse impacts. Additionally, compliance with Title 8, Chapter 8.21 Grading Regulations of the Municipal Code requires a geotechnical report be prepared for all grading projects and a preliminary soil report, preliminary engineering geology report and/or seismicity report may be required depending on site specific conditions. Engineering geologic reports are required for all developments on hillside sites where geologic conditions are considered to have a substantial effect on existing and/or future site stability. The required reports must provide specific recommendations to facilitate a safe and stable development. Future development would be required to comply with GPU Safety Element policies and Municipal Code requirements for geologic reports, which would ensure that impacts related to seismic hazards and unstable geological units would be less than significant.

4.7.7.2 Topic 2: Soil Erosion

Future development would incorporate long-term water quality controls pursuant to storm water standards including the NPDES Municipal Permit requirements. Municipal Code requirements (Title 8, Chapter 8.10 Stormwater/urban Runoff Management and Discharge Controls and Title 9, Chapter 9.17 Landscape and Water Efficiency Requirements) provides additional guidance for storm water management, erosion control and slope planting. Implementation of these regulations would ensure that future development would not result in substantial soil erosion or the loss of topsoil, and impacts would be less than significant.

4.7.7.3 Topic 5: Paleontological Resources and Unique Geology

Construction-related ground-disturbing activities associated with future development could result in significant impacts (loss) of nonrenewable paleontological resources. Because site-specific details and locations of future development projects are not known at this program-level of analysis, impacts to paleontological resources would be potentially significant. The land use plan avoids unique geologic features in the City including rock outcroppings and maintains low density land uses within the badlands areas. Therefore, the project would not destroy a unique geologic feature, and impacts would be less than significant.

4.7.8 Mitigation

4.7.8.1 Topics 1 and 3: Seismic Hazards and Unstable Geology and Topic 3: Expansive Soils

Impacts would be less than significant. No mitigation is required.

4.7.8.2 Topic 2: Soil Erosion

Impacts would be less than significant. No mitigation is required.

4.7.8.3 Topic 4: Paleontological Resources and Unique Geology

PAL-1: Applications for future development, wherein the Community Development Director or his or her designee has determined a potential for impacts to paleontological resources, shall review the underlying geology and paleontological sensitivity of the site. If it is determined that the potential exists that sensitive paleontological resources are present, the applicant shall be required to comply with the following mitigation framework.

A qualified paleontological monitor shall be present during grading in project areas where a project specific geological technical study has determined that such monitoring is necessary due to the potential for paleontological resources to reside within the underlying geologic formations. The geologic technical study shall also provide specific duties of the monitor, and detailed measures to address fossil remains, if found.

4.7.9 Significance of Impacts after Mitigation

4.7.9.1 Topics 1 and 3: Seismic Hazards and Unstable Geology and Topic 4: Expansive Soils

Impacts related to seismic hazards and unstable geology, soil erosion, and expansive soils would be less than significant. No mitigation is required.

4.7.9.2 Topic 2: Soil Erosion

Impacts would be less than significant. No mitigation is required.

4.7.9.3 Topic 5: Paleontological Resources

Impacts related to paleontological resources would be mitigated to a level less than significant.

This page intentionally left blank.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.8, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

4.8 Greenhouse Gas Emissions

This section analyzes the greenhouse gas ("GHG") impacts that could result from implementation of the Project, which consists of the 2024 General Plan Update ("GPU"), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan ("CAP"). These three separate planning documents are collectively referred to as MoVal 2040 Project ("Project"). The analysis area covers the City of Moreno Valley ("City") and its sphere of influence, which are collectively referred to as the Planning Area.

4.8.1 Existing Conditions

4.8.1.1 Greenhouse Gases and Climate Change

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential ("GWP"). Table 4.8-1 describes the primary GHGs associated with global climate change, including their physical properties. The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors including chemical reactivity of the gas also influence GWP. GWP is reported as a unitless factor representing the potential for the gas to affect global climate relative to the potential of carbon dioxide (CO_2). Because CO_2 is the reference gas for establishing GWP, by definition its GWP is 1. Although methane (CH_4) has a shorter atmospheric lifetime than

CO_2, it has a 100-year GWP of 25; this means that CH_4 has 25 times more effect on global warming than CO_2 on a molecule-by-molecule basis.[1]

Table 4.8-1
Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWP for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 109 years.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.

[1] USEPA, Understanding Global Warming Potentials, 2025, https://www.epa.gov/ghgemissions/understanding-global-warming-potentials. Accessed April 2025.

Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Hydrochlorofluoro-carbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030.
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays.
SOURCE: Compiled from USEPA, *Overview of Greenhouse Gases*, www.epa.gov/ghgemissions/overview-greenhouse-gases; USEPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, *Advancing the Science of Climate Change*, 2010; USEPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010. USEPA, *International Actions-The Montreal Protocol on Substances that Deplete the Ozone Layer, https://www.epa.gov/ozone-layer-protection/international-actions-montreal-protocol-substances-deplete-ozone-layer.*	

GHG emissions estimates are typically represented in terms of equivalent metric tons of CO_2 ($MTCO_2e$). CO_2 equivalent (CO_2e) emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of $MTCO_2e$ and can be summed to represent the total potential of these gases to warm the global climate. Table 4.8-1 summarizes some of the most common GHGs. All of the gases in Table 4.8-2 are produced by both biogenic (natural) and anthropogenic (human) sources. The GHGs of primary concern in this analysis are CO_2, CH_4, and N_2O.

Table 4.8-2
Global Warming Potentials and Atmospheric Lifetimes (years)

Gas	Atmospheric Lifetime (years)	100-year GWP	20-year GWP[1]
Carbon dioxide (CO_2)	50–200	1	1
Methane (CH_4)	12	25	72
Nitrous oxide (N_2O)	114	298	289
HFC-23	270	14,800	12,000
HFC-32	4.9	675	2,330
HFC-125	29	3,500	6,350
HFC-134a	14	1,430	3,830
HFC-143a	52	4,470	5,890
HFC-152a	1.4	124	437
HFC-227ea	34.2	3,220	5,310
HFC-236fa	240	9,810	8,100
HFC-43-10mee	15.9	1,640	4,140
CF_4	50,000	7,390	5,210
C_2F_6	10,000	12,200	8,630
C_3F_8	2,600	8,830	6,310
C_4F_{10}	2,600	8,860	6,330
c-C_4F_8	3,200	10,300	7,310
C_5F_{12}	4,100	9,160	6,510
C_6F_{14}	3,200	9,300	6,600
SF_6	3,200	22,800	16,300

SOURCE: Intergovernmental Panel on Climate Change (IPCC) 2007.
GWP = growth warming potential
1. 20-year GWP is not utilized in the analysis but is included for informational purposes.
2. IPCC 5th Assessment Report (2014) and 6th Assessment Report (2023) are published, however CARB recommends the 4th Assessment Report (2007) for preparing a greenhouse gas inventory.

4.8.1.2 GHG Inventories

a. State

The California Air Resources Board ("CARB") performs Statewide GHG inventories. The inventory is divided into the following sectors of economic activity: electricity generation, transportation, industrial, commercial, residential, agriculture and forestry. Emissions are quantified in million metric tons ("MMT") of CO_2e. Table 4.8-3 shows the estimated Statewide GHG emissions for the years 1990, 2010, 2018, and 2022.

Table 4.8-3
California GHG Emissions by Sector in 1990, 2010, 2018, and 2022

Sector	1990[1] Emissions in MMT CO_2e (% total)[2]	2010[3] Emissions in MMT CO_2e (% total)[2]	2018[3] Emissions in MMT CO_2e (% total)[2]	2022 Emissions in MMT CO_2e (% total)[2]
Transportation	150.6 (35.0%)	162.6 (36.7%)	164.8 (40.2%)	139.9 (37.7%)
Electricity	110.5 (25.7%)	90.3 (20.4%)	65.0 (15.8%)	59.8 (16.1%)
Industrial	105.3 (24.4%)	88.1 (19.9%)	82.3 (20.0%)	72.7 (19.6%)
Commercial and Residential	14.4 (3.4%)	46.0 (10.4%)	37.5 (9.1%)	39.5 (10.6%)
Agriculture	18.9 (4.4%)	34.0 (7.7%)	32.0 (7.8%)	29.8 (8.0%)
High GWP[4]	--	13.7 (3.1%)	20.6 (5.0%)	21.3 (5.7%)
Recycling and Waste[5]	--	7.9 (1.8%)	8.2 (2.0%)	8.2 (2.2%)
Total[6]	**430.7**	**442.5**	**410.5**	**371.1**

SOURCE: CARB 2007 and 2024.
1. 1990 data was obtained from the CARB 2007 source and are based on IPCC fourth assessment report GWPs.
2. Percentages may not total 100 due to rounding.
3. 2010, 2018, and 2022 data were retrieved from the CARB 2024 source and are based on IPCC fourth assessment report GWPs.
4. High GWP gases include releases of ozone depleting substances (ODS) substitutes, sulfur hexafluoride emissions from the electricity transmission and distribution system, and emissions from semiconductor manufacturing. 98.1% of high GWP emissions are from emissions of ODS substitutes, primarily HFCs used in refrigeration, air conditioning equipment, solvent cleaning, foam production, fire retardants, and aerosols.
5. Waste emissions include CH_4 and N_2O emissions from landfills and commercial scale composting.
6. Totals may vary due to independent rounding.

As shown in Table 4.8-3, Statewide GHG source emissions totaled about 431 MMT CO_2e in 1990, 448 MMT CO_2e in 2010, 425 MMT CO_2e in 2018, and 371.1 MMT CO_2e in 2022. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. However, transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

b. Regional

In September 2014, the Western Riverside Council of Governments ("WRCOG") adopted the *Subregional Climate Action Plan*.[2] The plan inventoried existing emissions within western Riverside County and outlined measures to reduce future emissions. The communitywide GHG emissions were calculated using the International Council for Local Environmental Initiatives ("ICLEI") U.S. Community Protocol.[3] The Subregional Climate Action Plan is currently being updated, with a draft circulated in February 2022. Similar to the Statewide

[2] Western Riverside Council of Governments (WRCOG), Subregional Climate Action Plan, 2014, https://wrcog.us/172/Planning. Accessed April 2025.

[3] International Council for Local Environmental Initiatives (ICLEI), U.S. Community Protocol, https://icleiusa.org/us-community-protocol/#:~:text=Download%20the%20U.S.%20Community%20Protocol,emissions%20associated%20with%20their%20communities. Accessed April 2025.

emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use. However, the City of Moreno Valley is not included in the Subregional CAP as it is independently developing its own CAP.

c. Local

The City's CAP contains a number of emission inventories and forecasts. Table 4.8-4 includes a summary of the five emission sectors within the City in 2024. The emissions shown are the legislative-adjusted, meaning electricity sector includes the more stringent RPS requirements from SB 100 and SB 1020, more stringent energy efficiency requirements for residential construction from Title 24, and fuel efficiency improvements from transportation legislation (e.g. Advanced Clean Cars, Advanced Clean Trucks, Pavley Standards, Innovative Clean Transit).

Table 4.8-4
Moreno Valley GHG Emissions in 2024

Source	2024 Baseline Emissions	
	MT CO_2e	Percentage
Transportation	758,601	55.8%
Energy	404,213	29.7%
Solid Waste	189,721	13.9%
Water	6,724	0.5%
Wastewater	1,027	0.1%
Total	**1,360,285**	**100%**

SOURCE: Rincon, 2025.

4.8.2 Applicable Regulatory Requirements

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the national, State, and regional levels with the aim of reducing GHG emissions. The following is a discussion of the federal, State, and local plans and regulations most applicable to GHG emissions. See Applicable Regulatory Requirements in Section 4.3, Air Quality, and Section 4.6, Energy, for additional related regulations.

4.8.2.1 Federal Regulations

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the Project level. The federal government, U.S. Environmental Protection Agency (USEPA), and other federal agencies have many federal level programs and projects to reduce GHG emissions.

a. U.S. Environmental Protection Agency

The USEPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be

regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the USEPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the USEPA's assessment of the scientific evidence that form the basis for the USEPA's regulatory actions.

The USEPA is responsible for implementing federal policies to address global climate change. The federal government's early efforts focused on public-private partnerships to reduce GHG emissions through energy efficiency, renewable energy, CH_4 and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

The USEPA is required to regulate carbon dioxide and other GHGs as pollutants under Section 202(a)(1) of the FCAA. The first step in implementing its authority was the Mandatory Reporting Rule that required inventory data collection commencing on January 1, 2010, with first reports due March 2011. Effective January 2, 2011, the USEPA requires new and existing sources of GHG emissions of 75,000 tons per year to obtain a permit under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit Program.

On January 20, 2025 President Trump issued Unleashing American Energy which revoked previous Executive Orders from President Biden related to climate change and GHG emissions including 13990 (Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis) and 14008 (Tackling the Climate Crisis at Home and Abroad).[4]

b. Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 by President Bush directing the USEPA, the U.S. Department of Transportation, and the U.S. Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway and Transportation Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016.

In 2010, President Obama issued an Executive Memorandum directing the U.S. Department of Transportation, U.S. Department of Energy, USEPA, and NHTSA to establish additional standards regarding fuel efficiency, GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model

[4] The White House, Unleashing American Energy, January 2025, https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/. Accessed April 2025.

year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The President adopted the final rule in 2012 for model years 2017 through 2021, and NHTSA intended to set standards for model years 2022 through 2025 in a future rulemaking. On January 12, 2017, the USEPA finalized its decision to maintain the current GHG emissions standards for model years 2022 through 2025 cars and light trucks. It should be noted that the USEPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 miles per gallon ["mpg"]), canceling any future strengthening (currently 54.5 mpg by 2026).[5]

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption were tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would have reduced GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks.[6] The phase two program applies to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the USEPA and the NHTSA published the Safer Affordable Fuel-Efficient ("SAFE") Vehicles Rule Part One: One National Program.[7] The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA finalized rulemaking for SAFE Part Two, which sets CO_2 emissions standards and corporate average fuel economy ("CAFE") standards for passenger vehicles and light duty trucks, covering model years 2021 through 2026.[8]

[5] USEPA, U.S. DOT and EPA Put Safety and American Families First with Final Rule on Fuel Economy Standards, 2020, https://www.epa.gov/newsreleases/us-dot-and-epa-put-safety-and-american-families-first-final-rule-fuel-economy. Accessed April 2025.

[6] USEPA, EPA and DOT Finalize Greenhouse Gas and Fuel Efficiency Standards for Heavy-Duty Trucks, 2016, https://www.epa.gov/archive/epa/newsreleases/epa-and-dot-finalize-greenhouse-gas-and-fuel-efficiency-standards-heavy-duty-trucks-0.html?. Accessed April 2025.

[7] USEPA, Final Rule: One National Program on Federal Preemption of State Fuel Economy Standards, 2019, https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-one-national-program-federal-preemption-state, Accessed April 2025.

[8] USEPA, U.S. DOT and EPA Put Safety and American Families First with Final Rule on Fuel Economy Standards, 2020, https://www.epa.gov/newsreleases/us-dot-and-epa-put-safety-and-american-families-first-final-rule-fuel-economy. Accessed April 2025

4.8.2.2 State Regulations

a. California Air Resources Board

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2e in the world and produced 381.1 metric million gross metric tons of CO_2e in 2021.[9] In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32 (2006), *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Title 24 of the California Code of Regulations, building efficiency standards, and Title 20, appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of actions taken at the State level.

b. Assembly Bill 32—California Global Warming Solutions Act of 2006

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020, which would require a reduction of approximately 173 MMT CO_2e below "business as usual" emission levels. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

c. 2022 CARB Scoping Plan

Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan)[10] sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279 (2022). To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy

[9] California Air Resources Board, Current California GHG Emission Inventory Data: 2000-2021 GHG Inventory (2023 Edition), https://ww2.arb.ca.gov/ghg-inventory-data. Accessed January 2025.

[10] California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality, 2022, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf. Accessed April 2025.

alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen. The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan[11] , CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (i.e., Climate Action Plan) consistent with CEQA Guidelines section 15183.5.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission (ZE) transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place. Statewide strategies to reduce GHG emissions in the latest 2022 Scoping Plan include:

- Implementing SB 100 (2018) (achieve 100 percent clean electricity by 2045);
- Achieving 100 percent zero emission vehicle sales in 2035 through Advanced Clean Cars II; and
- Implementing the Advanced Clean Fleets regulation to deploy zero-emission vehicle (ZEV) buses and trucks.[12]

Additional transportation policies include the Off-Road Zero-Emission Targeted Manufacturer rule[13], Clean Off-Road Fleet Recognition Program[14], In-use Off-Road Diesel-Fueled Fleets Regulation[15], Clean Off-Road Fleet Recognition Program[16], and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation[17]. The 2022 Scoping Plan would continue to implement SB 375 (2008) (see text below). GHGs would be further reduced through the Cap-and-Trade Program carbon pricing and SB 905 (2022). SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage (CCUS) Program to evaluate, demonstrate, and regulate carbon dioxide removal projects and technology.

[11] California Air Resources Board, California's 2017 Climate Change Scoping Plan, 2017, https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed April 2025.

[12] CARB withdrew the California waiver end of 2023. Only local government fleet section of Advanced Clean Fleet are being enforced now.

[13] California Air Resources Board, Zero Emission Off-Road Strategies, https://ww2.arb.ca.gov/sites/default/files/2024-01/ZEV_EO_Off-Road_Fact_Sheet.pdf. Accessed April 2025.

[14] California Air Resources Board, Off-Road Recognition Program Request for Information, https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-recognition-program-request-information. Accessed April 2025.

[15] California Air Resources Board, In-Use Off-Road Diesel-Fueled Fleets Regulation, https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation/about. Accessed April 2025.

[16] California Air Resources Board, Off-Road Recognition Program Request for Information, https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-recognition-program-request-information. Accessed April 2025.

[17] California Air Resources Board, CARB Approves Amendments to Off-Road Regulation to Further Reduce Emissions, 2022, https://ww2.arb.ca.gov/news/carb-approves-amendments-road-regulation-further-reduce-emissions/printable/print. Accessed April 2025.

The 2022 Scoping Plan reflects existing and recent direction in the Governor's Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these are Executive Order B-55-18 (2018) and AB 1279 (2022) (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the 2022 Scoping Plan. Table 4.8-5 provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022) *The California Climate Crisis Act*	AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 Statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO_2 removal solutions and CCUS technologies. This bill is reflected directly in the 2022 Scoping Plan.
Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022) *Carbon Capture, Removal, Utilization, and Storage Program*	SB 905 requires CARB to create the CCUS Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology. The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project. The 2022 Scoping Plan modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.
Senate Bill 846 (SB 846) (Dodd, Chapter 239, Statutes of 2022) *Diablo Canyon Powerplant: Extension of Operations*	SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the California Public Utilities Commission (CPUC) not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant. The 2022 Scoping Plan explains the emissions impact of this legislation.

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Senate Bill 1020 (SB 1020) (Laird, Chapter 361, Statutes of 2022) *Clean Energy, Jobs, and Affordability Act of 2022*	SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, California Energy Commission (CEC), and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability. The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the sState with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment. The 2022 Scoping Plan describes the implications of this legislation on emissions.
Senate Bill 1137 (SB 1137) (Gonzales, Chapter 365, Statutes of 2022) *Oil & Gas Operations: Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors*	SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.
Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022)	SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases	pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses. This bill informs the production of hydrogen at the scale called for in the 2022 Scoping Plan.
Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022) *California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands*	AB 1757 requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other State agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support State goals to achieve carbon neutrality and foster climate adaptation and resilience. This bill also requires CARB to develop standard methods for State agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO_2, CH_4, and NO_X related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible. This 2022 Scoping Plan describes the next steps and implications of this legislation for the natural and working lands sector.

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022) *Hydrofluorocarbon gases: sale or distribution*	SB 1206 mandates a stepped sales prohibition on newly produced high-GWP HFCs to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP < 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.
Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021) *Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects*	SB 27 requires CNRA, in coordination with other State agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO_2 removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding. CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry. This bill is reflected directly in the 2022 Scoping Plan as CO_2 removal targets for 2030 and 2045 in support of carbon neutrality.
Executive Order N-82-20	Governor Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a Statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other State agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the State's carbon neutrality goal and build climate resilience. In addition to setting a Statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of the 2022 Scoping Plan, and to take into consideration the Natural and Working Lands Climate Smart Strategy. Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	state. State agencies will consult the Collaborative on efforts to: • Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time. • Analyze and project the impact of climate change and other stressors in California's biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the State's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production. The Natural and Working Lands Climate Smart Strategy informs the 2022 Scoping Plan.
Executive Order N-79-20	Governor Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the State in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are: • 100 percent of in-State sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible. The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	2045, as listed above. The 2022 Scoping Plan modeling reflects achieving these targets.
Executive Order N-19-19	Governor Newsom signed Executive Order N-19-19 in September 2019 to direct State government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that: • Includes a proactive strategy for the State's pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. Executive Order N-19-19 directs the State Transportation Agency to leverage more than $5 billion in annual State transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the State's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize State government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by: • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs.

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	• Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. The 2022 Scoping Plan modeling reflects efforts to accelerate ZEV deployment.
Assembly Bill 65 (AB 65) (Petrie-Norris, Chapter 347, Statutes of 2019) *Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans*	This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Office of Planning and Research on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaptation information. The bill authorizes the State Coastal Conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.
Executive Order B-55-18	Governor Brown signed Executive Order B-55-18 in September 2018 to establish a Statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall: • Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. • Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the State's water supply, water quality, and native plants and animals. This Executive Order also calls for CARB to: • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
	The 2022 Scoping Plan is designed to achieve carbon neutrality no later than 2045, and the modeling includes technology and fuel transitions to achieve that outcome.
Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018) *California Renewables Portfolio Standard Program: emissions of greenhouse gases*	Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021. The 2022 Scoping Plan reflects the SB 100 Core Scenario resource mix with a few minor updates.
Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018) *Electric Vehicle Charging Infrastructure: Assessment*	This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a Statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure. This bill supports the deployment of ZEVs as modeled in the 2022 Scoping Plan.
Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018) *Insurance: Climate Change*	This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.
Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018)	Existing State and federal laws set specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero-

Table 4.8-5
Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan

Bill/Executive Order	Summary
Near-zero-emission and Zero-emission Vehicles	emission vehicle or a ZEV to exceed the weight limits on the power unit by up to 2,000 pounds. This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan.

Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the 2022 Scoping Plan. It includes references to relevant statutes and Executive Orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described. Table 2-1 identifies actions related to a variety of sectors such as: smart growth and reductions in Vehicle Miles Traveled (VMT); light-duty vehicles (LDV) and ZEV; truck ZEVs; reduce fossil energy, emissions, and GHGs for aviation ocean-going vessels, port operations, freight and passenger rail, oil and gas extraction; and petroleum refining; improvements in electricity generation; electrical appliances in new and existing residential and commercial buildings; electrification and emission reductions across industries such as the for food products, construction equipment, chemicals and allied products, pulp and paper, stone/clay/glass/cement, other industrial manufacturing, and agriculture; retiring of combined heat and power facilities; low carbon fuels for transportation, business, and industry; improvements in non-combustion methane emissions, and introduction of low GWP refrigerants.

Achieving the targets described in the 2022 Scoping Plan will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California's Legislature and State agencies will continue to collaborate to achieve the State's climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the State's near-term and longer-term emission reduction goals and a more equitable future for all Californians. The 2022 Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the State, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Aligning local jurisdiction action with State-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan is identified as critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan discusses the role of local governments in meeting the State's GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed Statewide building code requirements and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting State-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority.

d. CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024.[18] By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium- and heavy-duty vehicles from Class 2b to Class 8.[19] The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting**: Large employers, including retailers, manufacturers, brokers and others, would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

[18] California Air Resources Board, Advanced Clean Trucks Regulation, https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks. Accessed April 2025.

[19] California Air Resources Board, Advanced Clean Trucks (ACT) Regulation Summary, https://ww2.arb.ca.gov/advanced-clean-trucks-act-regulation-summary. Accessed April 2025.

e. SB 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

SB 32 was signed on September 8, 2016, by Governor Jerry Brown. SB 32 requires the State to reduce Statewide GHG emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in California Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving California Executive Order S-3-05, which sets a statewide GHG reduction target of 80 percent below 1990 levels by 2050. Similarly, AB 197, approved in 2016, created a legislative committee to oversee regulators to ensure that CARB is not only responsive to the Governor but also the California legislature.

f. SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

In August 2008, the legislature passed, and on September 30, 2008, Governor Schwarzeneggar signed, SB 375 which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emission reductions associated with vehicle emission standards (see AB 1493 (2002) below), the composition of fuels, and other CARB-approved measures to reduce GHG emissions.

Per SB 375, regional metropolitan planning organizations (MPOs) are responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a development plan for the region which, will achieve the regional GHG reduction targets, if feasible, after consideration of transportation measures and policies. If an SCS is unable to achieve the GHG reduction targets, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining CEQA requirements by substantially reducing the requirements for "transit priority projects," as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects are consistent with the SCS or Alternative Planning Strategy. On September 23, 2010, CARB adopted the SB 375 targets for the regional MPOs.

g. AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

In 2002, the California legislature adopted Assembly Bill 1493, which includes regulations (also called Pavley regulations) to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2004, pursuant to AB 1493, the CARB approved these regulations. In September 2009, CARB adopted amendments to the Pavley regulations

to reduce GHG emissions from new motor vehicles with model years 2009 through 2016[20]. The CARB, USEPA, and the U.S. Department of Transportation's National Highway Traffic and Safety Administration coordinated efforts to develop fuel economy and GHG standards for model 2017-2025 vehicles. CARB subsequently adopted these GHG standards as Low Emission Vehicle regulations in 2012.[21]

h. AB 398 (Extension of Cap-and-Trade Program to 2030)

AB 398 was signed by Governor Brown on July 25, 2017, and became effective immediately as urgency legislation. AB 398, among other things, extended the cap-and-trade program through 2030.

i. Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05

Governor Arnold Schwarzenegger signed California Executive Order S-3-05 in June 2005, which establishes Statewide emission reduction targets through the year 2050:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This order directs the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006, and has since been updated every two years.

Executive Order B-30-15 – 2030 Statewide Emission Reduction Target

California Executive Order B-30-15 was signed by Governor Jerry Brown on April 29, 2015, establishing an interim Statewide GHG reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, which is necessary to guide regulatory policy and investments in

[20] California Air Resources Board, California's Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1493 of 2002 (Pavley), https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley. Accessed April 2025.

[21] California Air Resources Board, Low-Emission Vehicle Program, https://ww2.arb.ca.gov/our-work/programs/low-emission-vehicle-program. Accessed April 2025.

California in the midterm and put California on the most cost-effective path for long-term emission reductions. Under this California Executive Order, all State agencies with jurisdiction over sources of GHG emissions are required to continue to develop and implement emissions reduction programs to reach the State's 2050 target and attain a level of emissions necessary to avoid dangerous consequences of climate change. According to the Governor's Office, this California Executive Order is in line with the scientifically established levels needed in the United States to limit global warming below 2 degrees Celsius, the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

g. California Regulations and Building Codes

The California Code of Regulations (CCR), Title 24, is referred to as the California Building Code (CBC). It consists of a compilation of several distinct standards and codes related to building construction including, plumbing, electrical, interior acoustics, energy efficiency, handicap accessibility and so on. California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth. Of particular relevance to GHG emissions reductions are the CBC's energy efficiency and green building standards as outlined below.

Title 24, Part 6 – Energy Code

The California Code of Regulations, Title 24, Part 6, is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The CEC adopted the 2022 Energy Code on August 11, 2021, which was subsequently approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption across California. For example, the 2022 Title 24 standards will require efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards.

Title 20 – Appliance Efficiency Regulations

The appliance efficiency regulations (CCR Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24, Part 11 – California Green Building Standards Code

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 California Energy Code will provide 1.5 billion dollars in consumer benefits and reduce GHG emissions by 10 million metric tons over 30 years. The 2022 CALGreen standards that reduce GHG emissions and are applicable to the City include, but are not limited to, the following:

- Outdoor water use requirements as outlined in local water efficient landscaping ordinances or current Model Water Efficient Landscape Ordinance standards, whichever is more stringent;
- Short and long-term bicycle parking;
- 65 percent construction/demolition waste diverted from landfills;
- Requirements for water conserving plumbing fixtures and fittings;
- Infrastructure requirements for electric vehicle charging stations;
- Designated parking spaces for clean air vehicles;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements. Similar to the reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen mandatory requirements must be demonstrated through completion of compliance forms and worksheets. The 2025 CALGreen Code, if approved by the California Building Standards Commission, will be effective January 1, 2026.

4.8.2.3 Local

a. South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for Riverside County and the urban portions of Los Angeles, Orange, and San Bernardino Counties. The SCAQMD's primary responsibility is ensuring that California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) are attained and maintained in the South Coast Air Basin. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and

meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to applicable SCAQMD rules and regulations in effect at the time of construction and operation. The following is the SCAQMD rule relevant to GHG:

- **Rule 1415 (Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems)** – The purpose of this rule is to reduce emissions of high-global warming potential refrigerants from stationary air conditioning systems by requiring projects to reclaim, recover, or recycle refrigerant and minimize leakage.

b. Southern California Association of Governments

On April 4, 2024, SCAG's Regional Council adopted Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]).[22] On May 10, 2024, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approved Connect SoCal 2024; however, CARB's approval is still pending before it is fully certified. On September 3, 2020, SCAG's Regional Council adopted Connect SoCal 2020 (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]) which has been approved by the FHWA, FTA, and CARB.[23] Connect SoCal charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, Tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Connect SoCal is a long-range vision plan that balances future mobility and housing needs with economic and environmental goals. The SCAG region strives toward sustainability through integrated land use and transportation planning.

The SCAG region must achieve specific federal air quality standards and is required by State law to lower regional GHG emissions. Connect SoCal aims to deliver significant benefits to the region with respect to mobility, safety, health outcomes, travel-time reliability, air quality, economic productivity, environmental justice, and transportation asset condition. Connect SoCal 2024 establishes GHG emissions goals for automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by CARB (California Government Code Section 65080(b)(2)(B)) (i.e., for 2020 and 2035 as well as an overall GHG target for the Project region consistent with both the target date of AB 32 and the post 2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15 and the Connect SoCal 2045 target for the SCAG region is 19 percent below 2005 per capita emissions levels by 2035).

Since Connect SoCal was adopted in 2020, SCAG gained responsibility for the selection of transportation projects to be funded with federal revenue. Implementation of the Connect

[22] The Southern California Association of Governments, Connect SoCal, 2024, https://scag.ca.gov/sites/default/files/2024-05/23-2987-connect-socal-2024-final-complete-040424.pdf. Accessed April 2025.

[23] The Southern California Association of Governments, Connect SoCal, 2020, https://scag.ca.gov/sites/default/files/2024-05/0903fconnectsocal-plan_0.pdf. Accessed April 2025.

SoCal 2024 would add 181,200 new miles of transit revenue service, 4,000 new miles of bike lanes and 869 new miles to the Regional Express Lane Network. Connect SoCal contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding.

Connect SoCal 2024 and 2020 account for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. Connect SoCal is also supported by a combination of transportation and land use strategies that help the region achieve State GHG emissions reduction goals and FCAA requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently.

c. Moreno Valley Electric Utility Integrated Resource Plan and Transportation Electrification Roadmap

Adopted in 2018, the Integrated Resource Plan (IRP) is Moreno Valley Utility's (MVU) 20-year plan for ensuring reliable and environmentally responsible electrical energy at affordable rates.[24] The IRP identifies a diverse and balanced portfolio of resources needed to ensure that MVU has reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner. The portfolio relies upon zero carbon-emitting resources to the maximum extent reasonable to achieve any Statewide GHG emissions limit established pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code) or any successor legislation. The proposed procurement plan includes a strategy for procuring best-fit and least-cost resources to satisfy these portfolio needs.

Consistent with good utility practice and the default standard of the California Independent System Operator (CAISO), the IRP includes a capacity planning reserve margin of at least 15 percent above the expected annual and monthly peak demands. MVU's procurement plan includes a renewable energy procurement compliance margin of 5 percent per compliance period to address the risks of load variations, renewable resource performance and potential contract failure. The IRP ensures that MVU meets, by 2030, its share of the California greenhouse gas (GHG) emissions reduction target established by the California Air Resources Board (CARB).

The IRP considered a number of potential renewable, distributed and conventional generation resources to meet load in excess of MVU's existing contracts. Energy storage was generally considered primarily as a potential capacity or shaping resource.

[24] Moreno Valley Electric Utility, 2018 Integrated Resource Plan, https://www.moreno-valley.ca.us/mvu/pubs/MVU-IRP-Report-072018.pdf. Accessed April 2025.

On February 21, 2017, the Moreno Valley City Council approved energy efficiency targets for MVU. According to this policy, annual energy efficiency savings will be targeted at 0.65 percent of retail electric sales through 2027. The IRP assumes all existing and committed energy efficiency and demand response programs are in place, and additional achievable energy efficiency is set at 0.65 percent annually throughout the planning horizon. MVU will strive to procure all reasonably cost-effective energy efficiency and demand response, and all new construction is expected to meet the current energy efficiency standards. Any additional energy efficiency or demand response that might be procured will reduce MVU's net load and/or peak demand.

d. Energy Efficiency and Climate Action Strategy

In October 2012, the City adopted its Energy Efficiency and Climate Action Strategy.[25] The main objectives of the Strategy are to reduce the environmental and fiscal impacts of energy usage and GHG emissions in municipal facilities and within the community. The strategy adopts a comprehensive list of measures intended to reduce energy consumption, reduce water use, encourage recycling and waste diversion, promote use of alternative fuel vehicles, facilitate the use of renewable energy, or otherwise reduce GHG emissions. Policy measures support the following:

- **R2-T1:** Land Use Based Trips and VMT [Vehicle Miles Travelled] Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG RTP/SCS Plan, to allow a reduction in vehicle miles traveled.
- **R2-T3:** Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.
- **R2-E1:** New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10% beyond the current Title 24 standards. (Reach Code)
- **R2-E2:** New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.
- **R2-E5:** New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards. (Reach Code)
- **R3-E1:** Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and

[25] City of Moreno Valley, Energy Efficiency and Climate Action Strategy, October 2012, https://www.moval.org/pdf/efficiency-climate112012nr.pdf. Accessed March 2025.

guidelines to further implement green building practices. This could include incentives for energy efficient projects.

- **R3-L2:** Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.
- **R2-W1:** Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.
- **R3-W1:** Water Efficiency Training and Education. Work with EMWD [Eastern Municipal Water District] and local water companies to implement a public information and education program that promotes water conservation.
- **R2-S1:** City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75% by 2020.

4.8.3 Methodologies for Determining Impacts

A GHG inventory and projections were prepared in conjunction with the CAP. This includes the 1990 backcasting, calendar year 2024, the full buildout year for the 2024 GPU, calendar year 2040, as well as 2045 for alignment with legislative goals and requirements. Employment projections are based on the Vehicle Miles Traveled ("VMT") Assessment prepared for the 2024 GPU (Appendix E). Future emissions are based on projected population, employment, and land use buildout numbers for the 2024 GPU. The following is a discussion of the methodology used to calculate emissions from each source.

Transportation emissions are based on VMT for on-road vehicles. The RIVCOM is a computer program administered by WRCOG's Transportation and Planning Department that measures travel demand using the "full accounting method" which tracks the full length of any trip that has at least one trip end in the City to its ultimate destination. As stated in the CAP, the City generates 5,255,468 VMT in the existing condition (2024) and buildout of the 2024 GPU (2040) would generate 7,488,713 VMT. CARB's EMFAC2021 model was used to calculate on-road transportation emissions while CARB's OFFROAD2021 model was used to calculate fuel usage for off-road transportation (off-road equipment an vehicles).[26] See the VMT Assessment prepared for the 2024 GPU (Appendix E) for more details on VMT methodology.

Methodologies and assumptions related to energy, solid waste, wastewater, and water can be found in the CAP and associated appendices prepared for the 2024 GPU.

[26] California Air Resources Board, Off-Road Emissions Inventory, https://arb.ca.gov/emfac/offroad/emissions-inventory/2c91f253def05eba6e32b4c543ffa9a49f235e92. Accessed April 2025.

4.8.4 Basis for Determining Significance

Thresholds used to evaluate impacts to GHG emissions are based on applicable criteria in the CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

GHG impacts were evaluated by determining if the project would sufficiently reduce its overall GHG emissions consistent with the State's emission reduction goals as expressed in SB 32 and AB 1279. As discussed above, the State has established goals to reduce statewide GHG emissions 40 percent below 1990 levels by 2030 (SB 32), to achieve carbon neutrality as soon as possible, but no later than 2045, and to ensure that by 2045 Statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels (AB 1279). This Revised Draft EIR evaluates whether or not the 2024 GPU incorporates efficiency and conservation measures sufficient to contribute its portion of the overall GHG reductions necessary for the State to achieve its own mandates. If the Project demonstrates that it is sufficiently reducing its overall GHG emissions, impacts can be determined not to be cumulatively considerable.

4.8.5 Impact Analysis

4.8.5.1 Topic 1: GHG Emissions

Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Future development associated with the 2024 GPU is expected to result in increased GHG emissions, largely due to increased VMT, as well as from stationary area sources (i.e., natural gas consumption for space and water heating devices, landscape maintenance equipment operations, and use of consumer products), energy consumption, water supply, and solid waste generation.

To compare the City's emissions to the applicable targets, GHG emissions, with the impact of State laws, regulations, and policies and *without implementation of CAP measures*, were calculated for the following: the 1990 backcast year, the 2024 baseline year, the 2030 interim year, the 2040 buildout year, and the 2045 forecast year. Emissions were calculated using the methodology summarized in Section 4.8.3. As shown on Table 4.8-6, existing City-wide GHG emissions in 2024 are below the 1990 backcasted levels in total emissions (in MT CO_2e) and emission per capita (in MT CO_2e/person). Total GHG emissions would increase as growth and population occurs from 2024 to 2045, but the per capita emissions are predicted to decrease as laws, regulations, and policies created to lower GHGs, *but excluding the effect of strategies and measures contained in the CAP*, are implemented.

Table 4.8-6
Moreno Valley GHG Emissions Inventories and Efficiency Metrics without CAP Measures

	Backcasting (1990)[2]	Baseline (2024)	Interim (2030)	Buildout (2040)	Forecast (2045)
Transportation	--	758,601	780,447	846,207	906,109
Building Energy	--	404,213	428,976	385,318	404,791
Solid Waste	--	189,721	224,336	282,026	310,872
Wastewater	--	1,027	1,183	1,400	1,530
Water	--	6,724	5,744	903	0
Total (MT CO_2e)	1,401,312	1,360,285	1,440,687	1,515,855	1,623,302
Population	118,779	205,620	240,428	298,440	327,446
MT CO_2e Per Capita	**11.80**	**6.62**	**5.99**	**5.08**	**4.96**

SOURCE: Rincon, 2025.
1. Total emissions may be off due to rounding.
2. Because a GHG emissions inventory for the City does not exist in 1990, historical emissions levels were estimated using a State-level emissions change metric. This was backcasted as a total and not individual emissions sectors.

As discussed above, SB 32 and AB 1279 were utilized as thresholds to evaluate the 2024 GPU's trajectory for achieving State mandates. Reduction targets for each year studied, based on achieving the required reduction from the 1990 backcasted per capita emissions, are shown on Table 4.8-7, along with the equivalent City-wide GHG emissions target and comparison to the GHG inventories from Table 4.8-6.

Table 4.8-7
GHG Targets and Predicted Consistency without CAP Measures

SB 32 Targets					
	Backcasting (1990)	Baseline (2024)	Interim (2030)	Buildout (2040)	Forecast (2045)
Percent Reduction Below 1990 per Capita levels	N/A	40%	40%	80%	100%
MT CO_2e / person Target	11.80	7.10	7.08	2.36	0
Equivalent Mass Emissions Target (MT CO_2e)	1,401,312	1,460,209	1,701,886	704,178	0
Difference from Target[1] (MT CO_2e)	0	(99,924)	(261,199)	811,677	1,623,302
AB 1279 Targets[2]					
	Backcasting (1990)	Baseline (2024)	Interim (2030)	Buildout (2040)	Forecast (2045)
Percent Reduction Below 1990 per Capita levels	0%	51%	65%	88%	100%
MT CO_2e / person Target	11.80	5.75	4.11	1.37	0
Equivalent Mass Emissions Target (MT CO_2e)	1,401,312	1,182,571	987,683	408,667	0
Difference from Target[1] (MT CO_2e)	0	177,715	453,003	1,108,188	1,623,302

1. The difference is calculated as the "Target value" subtracted from the "Forecast value", so that a negative number, shown in parentheses, means the Forecast is below the Target, i.e. reductions exceed the target, and a positive number means more reductions are needed to achieve the target.
2. AB 1279 Targets listed here will be adopted with the CAP as they are the more stringent targets. The SB 32 Targets are included for informational purposes only. Compliance with AB 1279 would result in compliance with SB 32.
SOURCE: Rincon, 2025.

As shown in Table 4.8-7, the City's GHG emissions meet the SB 32 target currently (2024) and will through 2030; however, the City is not predicted to achieve the 2040 or 2045 targets needed to achieve net zero per capita GHG emissions by 2045 without additional measures implemented. The City would need to reduce total GHGs by an additional 811,677 MT CO2e and 1,623,302 MT CO_2e in 2040 and 2045, respectively (assuming the projected growth in population occurs), to achieve the SB 32 aligned targets of 80 percent and 100 percent below 1990 per capita levels, respectively. Also shown in Table 4.8-7, the City does not currently achieve the AB 1279 goal for 2024 (51 percent below 1990 levels) nor are emissions predicted to decrease in 2030, 2040, or 2045 sufficiently to meet the targets needed to achieve net neutrality by 2045). Without accounting for implementation of the strategies and measures in the CAP, there is a 1,623,302 MT CO_2e "reduction gap" in emissions by 2045. Therefore, GHG emissions from buildout under the 2024 GPU would not meet applicable thresholds, and a potentially significant impact would occur without additional measures.

The CAP is designed to reinforce the City's commitment to GHG emissions and demonstrate how the City will comply with the State of California's GHG emission reduction standards. As a Qualified GHG Reduction Strategy, the CAP will also enable streamlined environmental review of future development projects, in accordance with CEQA.

The CAP includes:

- An inventory of the City's GHG emissions;
- Forecasts of future GHG emissions;
- Measures to reduce GHG emissions consistent with State requirements; and
- Monitoring and reporting processes to ensure targets are met.

Therefore, the proposed CAP developed a Qualified GHG Reduction Strategy that would reduce GHG emissions to align with the State's goals and recommendations. These strategies would serve to reduce GHG emissions associated with transportation, building energy, solid waste, water, and wastewater. Each measure includes estimated emission reductions in 2030 and 2045. Table 4.8-8 summarizes the CAP GHG reduction measures along with the estimated reduction.

Table 4.8-8
CAP GHG Reduction Measures

	Strategy	2030 GHG Emission Reductions (MT CO_2e)	2045 GHG Emission Reductions (MT CO_2e)
Strategy C: Cornerstone to Climate Action Planning			
C-1	Build off the California Transportation Commission's Clean Freight Corridor Efficiency Assessment to facilitate the development of medium- and heavy-duty zero-emission vehicle refueling depots along the SR 60 corridor to meet the growing demand of medium- and heavy-duty freight transport and help facilitate the decarbonization goals associated with the California Air Resources Board's Advanced Clean Fleets regulation.	Supportive	Supportive
Strategy BE: Building Energy			
BE-1	Procure or offset 70% of Moreno Valley Electric Utility electricity from renewable energy sources by 2030 and 100% of electricity from renewable energy sources by 2045.	13,399	0[1]
BE-2	Decarbonize new residential construction by at least 95% by 2026.	19,522	121,094
BE-3	Decarbonize new nonresidential construction by at least 95% by 2026.	5,106	32,231
BE-4	Decarbonize existing residential buildings to reduce existing residential natural gas consumption by 7% by 2030 and 31% by 2045.	11,305	134,341
BE-5	Decarbonize existing nonresidential buildings to reduce existing nonresidential natural gas consumption by 3.8% by 2030 and 18% by 2045.	1,645	24,125
BE-6	Increase generation and storage of local renewable energy to increase the availability and resilience of renewable power.	Supportive	Supportive
Strategy T: Transportation			
T-1	Implement programs to increase active transportation mode share from less than 1% to 3% by 2030 and to 6% by 2045.	2,352	6,079
T-2	Work with the Riverside Transit Agency to increase public and multi-modal transportation mode share from about 1% to 2.7% by 2030 and to 10% by 2045.	9,767	59,435
T-3	Implement programs to increase the work-from-home rate from 3% to 15% in 2030 and 25% in 2045 to reduce commuter vehicle miles traveled.	61,426	125,963
T-4	Achieve zero-emission vehicle adoption rates of 31% for passenger vehicles and 19% for commercial vehicles by 2030 and 100% for both vehicle types by 2045.	111,067	646,245
T-5	Implement programs to support CARB and South Coast Air Quality Management District goals to decarbonize 30% of off-road equipment by 2030 and 100% by 2045.	18,335	38,918
Strategy SW: Solid Waste			

Table 4.8-8
CAP GHG Reduction Measures

	Strategy	2030 GHG Emission Reductions (MT CO_2e)	2045 GHG Emission Reductions (MT CO_2e)
SW-1	Achieve, monitor, and maintain SB 1383 (2016) requirements to reduce waste sent to landfills by 75% below 2014 levels by 2030.	195,661	282,198
Strategy WW: Water and Wastewater			
WW-1	Work with the Eastern Municipal Water District and Box Springs Mutual Water Company to reduce per capita potable water consumption.	Supportive	Supportive
Strategy CS: Carbon Sequestration			
CS-1	Increase carbon sequestration in the community by procuring and distributing compost within the community to achieve SB 1383 (2016) procurement requirements (i.e., 0.08 tons recovered organic waste per person) by 2030 and maintain them through 2045.	4,424	6,025
CS-2	Increase carbon sequestration by preserving existing mature trees and planting and maintaining 200 new trees per year, beginning in 2026.	106	1,487
Total		**454,115**	**1,478,141**

Notes: MT CO_2e = metric tons of carbon dioxide equivalent. Values may not add up to totals due to rounding.
[1] SB 100 (2018) requires the State's electricity sector to achieve 100 percent renewable and zero-carbon electricity by 2045. By that time, the electricity GHG emission factor will be 0 MT CO_2e per kilowatt-hour (kWh), resulting in no additional reductions beyond the State-mandated baseline.
[2] Supportive measures and actions may also be quantifiable however due to one of several factors – including a low/no GHG reduction benefit, indirect GHG reduction benefit, or potential for double-counting– they have not been quantified and do not contribute directly to the expected GHG emissions reduction target and consistency with the State goals.
SOURCE: Rincon, 2025.

According to CARB, local actions - such as general plans and climate action plans - are essential tools for the State to meet its GHG emission reduction goals. The CAP GHG reduction strategies were designed for the City to achieve the maximum GHG reductions feasible in the year 2045. The combined GHG reductions from these measures is 1,478,141 MT CO_2e in 2045, which does not fully reduce emissions needed to reach the goal (carbon neutrality by 2045). See Table 4.8-9.

Table 4.8-9
2024 GPU GHG Emissions Reduction Pathway

GHG Emission Scenario	2030 GHG Emission (MT CO_2e)	2040 GHG Emission (MT CO_2e)	2045 GHG Emission (MT CO_2e)
Projected GHG Emissions (Adjusted Forecast)	1,440,687	1,515,855	1,623,302
GHG Emissions Reduction from Measure Implementation	454,115	1,090,223	1,478,141
GHG Emissions Remaining	986,572	425,631	145,161
GHG Emissions Reduction Target Pathway	987,683	408,667	0
Remaining GHG Emissions Reduction Gap	(1,111)	16,964[1]	145,161
Target anticipated to be met?	**Yes**	**No**	**No**

Table 4.8-9
2024 GPU GHG Emissions Reduction Pathway

GHG Emission Scenario	2030 GHG Emission (MT CO_2e)	2040 GHG Emission (MT CO_2e)	2045 GHG Emission (MT CO_2e)

Notes: MT CO_2e = metric tons of carbon dioxide equivalent. Numeric numbers denoted in parentheses represent negative numbers. Values may not add up to totals due to rounding.
1. The GHG emissions remaining in 2040 was interpolated between 2030 and 2045.
SOURCE: Rincon, 2025.

Together, the Measures and Actions in the CAP provide Moreno Valley with the GHG emissions reduction necessary to achieve their 2030 GHG emissions reduction target (see Table 4.8-9). However, the 2040 and 2045 GHG emissions reduction estimated is not currently enough to meet Moreno Valley's 2045 target of carbon neutrality. Achieving carbon neutrality will require new technologies, new State regulations, and additional Measures and Actions that incorporate lessons learned from implementing the Measures and Actions of this CAP (see Mitigation Measure GHG-1). Future CAP updates will account for these emerging technologies and new State regulations and include new Measures and Actions that the City will implement to close the remaining gap to achieve carbon neutrality.

Thus the 2024 GPU does not meet the threshold, and the impact is potentially significant. See Mitigation measures GHG-1 and GHG-2.

4.8.5.2 Topic 2: GHG Plans

Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs?

Applicable plans, policies, or regulations include statewide GHG emission goals established by AB 32 and SB 32; a longer-term Statewide policy goals established by EO S-3-05; the 2022 Scoping Plan (which establishes a specific statewide plan to achieve the 2045 target); SCAG's RTP/SCS; regulations regarding increased use renewables for electricity production (RPS); and the California Energy Code.

As shown in Table 4.8-4, approximately 56 percent of the City's existing GHG emissions are from mobile sources which would be further reduced by the 2022 Scoping Plan measures described above. It should be noted that the City has limited control over vehicle emissions. However, these emissions would decline in the future due to Statewide measures discussed above, as well as cleaner technology and fleet turnover. The 2024 GPU would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The 2024 GPU would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan.

Future 2024 GPU projects related to transit and active transportation, natural carbon sequestration efforts, building decarbonization, VMT reduction, reduced solid waste production, and reduced water consumption would support the goals of the CARB 2022 Scoping Plan related to use of clean technologies and fuels, reductions in short-lived climate pollutants, and increased action on natural and working lands to sequester carbon. As

discussed in Section 4.8.5.1, the 2024 GPU including the CAP would be consistent with the 2022 Scoping Plan GHG emission reduction goals. The GHG emission targets established in the proposed CAP are based on the goals established by EO S-3-15, SB 32, and AB 1279 consistent with the CAP guidelines established in the 2022 Scoping Plan. The CAP would achieve additional longer-term GHG reductions that would contribute towards achieving the State's long-term 2045 goal. It is not currently possible for the City to demonstrate how the City-applicable 2045 target can be achieved through the CAP because the City does not have direct jurisdictional control over all activities or emissions sources. However, the CAP includes specific implementation and monitoring procedures that require the City to achieve increasingly effective long-term reductions over time and demonstrate substantial progress on the pathway towards the long-term 2045 goal. As discussed in the Implementation, Monitoring, and Reporting chapter of the CAP, the City would identify new or modified local measures to complement future State actions needed to achieve the State's 2045 goal through future CAP updates. Moreover, the City would update the CAP following specific State actions, such as future updates to the Scoping Plan or new interim post-2040 targets, which would be needed to demonstrate how achievement of the State's longer-term 2045 goal would be feasible and, in turn, the role of local government agencies in complementing the State's regulatory actions. However, because the 2024 GPU would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions (AB 1279), this impact would be potentially significant.

4.8.6 Cumulative Analysis

The issue of global climate change is inherently a cumulative issue, as GHG emissions of individual projects cannot be shown to have a material effect on global climate change. Impacts would be cumulative in nature if they lead to a substantial increase in GHG emissions, when combined with other development. As discussed, the framework for assessing GHG emissions in the State has been created through AB 32, SB 32, EO S-3-05, AB 1279, and the 2022 Scoping Plan. If a project demonstrates that it is sufficiently reducing its overall GHG emissions consistent with statewide goals, the project's impact can be determined not to be cumulatively considerable as it would contribute to the State's GHG emission reduction goals. As discussed in Section 4.8.5 above, with implementation of the CAP, the City would reduce its GHG emissions but still not be consistent with the 2022 Scoping Plan GHG emission reduction targets (AB 1279). The City would update GHG inventories, evaluate the performance of individual strategies, evaluate progress toward the City's reduction targets, and make revisions to strategies, as necessary, to ensure that the City will achieve its targets (Mitigation Measure GHG-1 and GHG-2 below). Therefore, even with implementation of the CAP, the 2024 GPU would contribute to a cumulative impact related to GHG.

4.8.7 Significance of Impacts before Mitigation

4.8.7.1 Topic 1: GHG Emissions

As mentioned above, the 2024 GPU is on track to meet SB 32 (40 percent below 1990 levels by 2030) but not on track to meet AB 1279 (net neutrality by 2045) target goals for 2030 or 2045. Therefore, GHG emissions are potentially significant.

4.8.7.2 Topic 2: GHG Plans

As mentioned above, the 2024 GPU would not be consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions such as AB 1279 and CARB 2022 Scoping Plan. The 2024 GPU would be consistent with SB 32. Therefore, consistency with applicable GHG plans is potentially significant.

4.8.8 Mitigation

4.8.8.1 Topic 1: GHG Emissions

Impacts related to GHG emissions would be significant and the following mitigation shall be applicable.

GHG-1: The City shall monitor implementation of the CAP and periodically update the CAP, adding or enhancing Actions and Measures to achieve City-specific reductions targets in line with SB 32 and AB 1279. Specifically, the City shall:

a) Monitor continuously and report annually on CAP implementation activities. The annual monitoring report shall include the implementation status of each Action and Measure
b) Calculate GHG emission reductions annually and monitor progress towards achieving the performance targets of each Action and Measure
c) Update the City-wide GHG emissions inventories and targets aligned with SB 32 and AB 1279 every two to three years, in alignment with the five-year cycle specified below.
d) Prepare and adopt a fully updated CAP starting 2029, adopted by 2030, and every five years thereafter as needed if the inventories are showing the City is not on track to achieve the 2045 targets.
e) Adopt Actions and Measures to close any "reduction gaps" between the updated inventories and applicable 2040 and 2045 goals no later than December 31, 2030
f) Create, enhance, expand, or replace Actions and Measures, as new technologies and programs emerge that warrant inclusion in the CAP

GHG-2: For each discretionary project subject to and not exempt from CEQA, the applicant shall:

a) Complete the City's GHG Emissions Analysis Compliance Checklist to assist with determining project consistency with the Moreno Valley CAP, and
b) Incorporate appropriate GHG reduction measures to achieve their proportion of GHG emission reductions consistent with the assumptions of the CAP, and
c) Document the infeasibility or inapplicability of CAP measures, and
d) Propose alternative GHG reduction measures, as appropriate; or
e) Demonstrate through a quantitative analysis that the project would not impede (or would facilitate) Moreno Valley's ability to meet the GHG emissions reduction targets.

4.8.8.2 Topic 2: GHG Plans

See mitigation measures GHG-1 and GHG-2 above.

4.8.9 Significance of Impacts after Mitigation

The proposed CAP identifies strategies, measures, and actions that would be implemented to reduce GHG emissions consistent with State legislative goals. Therefore, with the adoption and implementation of the proposed CAP, GHG emissions generated by the Project would be reduced to meet State GHG reduction goals. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). As the Revised Draft EIR accounts for an updated baseline (2024), portions of the analysis presented in the Safety Element have been updated to accommodate key changes in adopted legislation. However, the analysis of Hazards and Hazardous Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.9 Hazards and Hazardous Materials

This section analyzes potentially significant impacts related to hazards and hazardous materials that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence), which are collectively referred to as the Planning Area. This analysis relies on secondary source information including but not limited to federal, regional, and city planning documents, and hazardous material databases.

4.9.1 Existing Conditions

4.9.1.1 Emergency Response

The Moreno Valley Emergency Operations Plan (2009) establishes a comprehensive, all-hazards approach to natural, man-made and technological disasters. The plan states the Moreno Valley Fire Department (MVFD) as the primary response agency for fires, emergency medical service, hazardous materials incidents, traffic accidents, terrorist acts, catastrophic weather events, and technical rescues throughout the Planning Area. The MVFD also provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Additionally, the City's Office of Emergency Management is located within the fire department allowing for coordinated responses to both natural and human-made disasters. The MVFD is part of the California Department of Forestry and Fire Protection (CAL FIRE)/Riverside County Fire Department's regional, integrated, cooperative fire protection organization.

4.9.1.2 Hazardous Materials

Hazardous materials are used throughout the Planning Area for a variety of purposes including manufacturing, service industries, various small businesses, agriculture, medical uses, schools, and households. Accidents can occur in the production, use, transport, and disposal of these hazardous materials. The probability of accidental spills is accentuated by the fact that the region is susceptible to earthquakes.

4.9.1.3 Hazardous Materials Sites

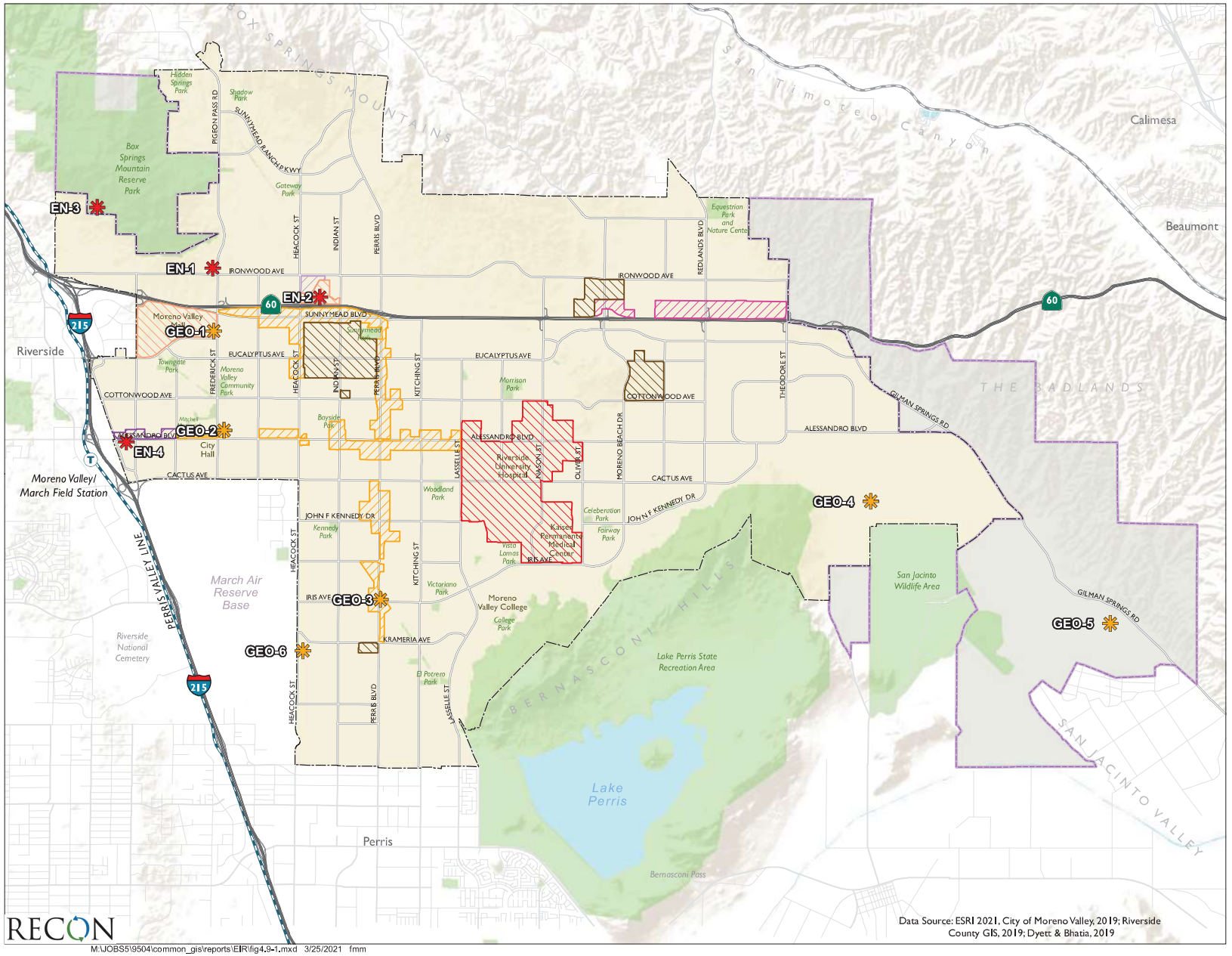
The Hazardous Waste and Substances Sites (Cortese) List is a planning document that provides information about the location of hazardous materials release sites in the state. Government Code Section 65962.5 requires the California Environmental Protection Agency

(CalEPA) to develop, at least annually, an updated Cortese List. The California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List that is contained in their Envirostor database (2019).

The other main source of information for sites in the Cortese List is the California State Water Resources Control Board's (State Water Board) Geotracker Database (Geotracker; 2021). "Geotracker" is the State Water Board's Internet-accessible database system used by the state board, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. This system consists of a relational database, online compliance reporting features, a geographical information system (GIS) interface, and other features that are utilized by the state0020board, regional boards, local agencies, regulated industry and the public to input, manage, or access compliance and regulatory tracking data.

Figure 4.9-1 depicts the location of active Envirostor and Geotracker hazardous materials sites. As shown on Figure 4.9-1, there are four active Envirostor sites and six active Geotracker hazardous materials sites within the Planning Area. Table 4.9-1 lists each site location and describes the site listing.

The majority of active sites involve dry cleaners and gas stations. GEO-4 consists of groundwater monitoring of a San Diego Gas & Electric site. At this time, there are no indications of impacts to groundwater beneath the site. GEO-6 involves the cleanup of substances/contaminants of concern within an off-site groundwater plume associated with March Air Reserve Base/Inland Port Airport (MARB/IPA) located within the Planning Area. These include benzene, chlorinated hydrocarbons, tetrachloroethylene (PCE), and trichloroethylene (TCE) within the aquifer used for drinking water. Issuance of an Annual Groundwater Monitoring Report on the MARB site began in 1996. Monitoring wells have been added to the monitoring network over time as required and decommissioned as appropriately. Cleanup of the groundwater plume is the responsibility of MARB/IPA.



- City of Moreno Valley
- Sphere of Influence
- EnviroStor Cleanup Sites
- GeoTracker Sites

General Plan Concept Areas

Mixed Use

- Downtown Center
- Center Mixed Use
- Corridor Mixed Use

Commercial/Office/Industrial

- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex

Residential

- Residential Density Changes

0 Miles 1

FIGURE 4.9-1
Hazardous Materials Sites

Table 4.9-1 Active Envirostor and Geotracker Hazardous Materials Sites		
Sites	Description	Location
Envirostor		
EN-1 Best Cleaners	Site Type: Voluntary Cleanup Status: Active	11875 Pigeon Pass Road Moreno Valley, CA 92557
EN-2 The Festival in Moreno Valley	Site Type: Voluntary Cleanup Status: Inactive, Action Required	24318 Hemlock Avenue Moreno Valley, CA 92557
EN-3 March Air Reserve Base Rifle Range	Status: Inactive - Needs Evaluation	No Address Given
EN-4 Alessandro Properties	Site Type: Voluntary Cleanup Status: Active	14044 Old 215 Frontage Road, 21839 Alessandro Boulevard, and 21921 Alessandro Boulevard Moreno Valley, CA 92553
Geotracker Sites		
GEO-1 Towngate Cleaners	Cleanup Status: Open – Site Assessment Loc Case #: 60001956	12625 Frederick Street Moreno Valley, CA 92553
GEO-2 M&M Dry Cleaners	Cleanup Status: Open - Remediation RB Case #: 2080099	23080 Alessandro Blvd. Unit 220 Moreno Valley, CA 92553
GEO-3 Shell Perris Boulevard	Cleanup Status: Open - Verification Monitoring Loc Case #: 200420313	15980 Perris Boulevard Moreno Valley, CA 92551
GEO-4 San Diego Gas & Electric	Cleanup Status: Open – Operating Regional Board Case #: 8 332020001	14601 Virginia Moreno Valley, CA 92555
GEO-5 Recycled Wood Products (RWP) Moreno Valley	Case #: 8 332875001	34005 Gilman Springs Drive Moreno Valley, CA 92583
GEO-6 Off-Base Groundwater Plume	Cleanup Status: Open - Remediation RB Case #: 166-72 -- 23 Loc Case #: 400090 -- 23	Heacock Street Riverside CA, 92518

4.9.1.4 Airport Hazards

The Riverside County Airport Land Use Commission adopts plans to protect and promote the safety and welfare of airport users and residents in the airport vicinity. Specifically, these plans seek to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.

a. March Air Reserve Base/Inland Port Airport

The compatibility zones and associated criteria set forth in the MARB/IPA Compatibility Plan provide noise and safety compatibility protection equivalent to or greater than the U.S. Air Force recommended criteria presented in the Air Installation Compatibility Use Zones

(AICUZ) study. Figure 4.9-2 shows a map of the compatibility zones and Figure 4.9-3 explains the necessary factors for each compatibility zone.

4.9.1.5 Transportation of Hazardous Materials

Hazardous materials pass through the Planning Area via the freeway, rail, and surface street system. Interstate 215 (I-215) is near the western boundary of the city limits. The nearest railway is the Burlington Northern and Santa Fe railway which runs parallel to I-215. While train derailment can occur at anytime, it is during an earthquake that a derailment and hazardous materials release would pose the greatest risk. The major automotive transportation routes through the city include State Route 60 (SR-60), Alessandro Boulevard, Perris Boulevard, and Cactus Avenue.

The city has no direct authority to regulate the transport of hazardous materials on state highways or rail lines. Transportation of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). DOT regulations establish criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code. The California Health Services Department regulates the haulers of hazardous waste (City of Moreno Valley 2006b).

4.9.1.6 Pipeline Hazards

The Planning Area has a history of pipeline ruptures, spillage, and vandalism to natural gas and sewer lines. According to the City's Local Hazard Mitigation Plan (LHMP; 2017), the probability for this hazard is a 2, which means that there is between a 1 percent and 10 percent chance that it will occur within the next year. The severity rating for this hazard is a 2, which means that there is a potential for limited damage, causing injuries and/or illnesses, complete shutdown of critical facilities for more than one week and/or 10 percent of property is severely damaged. Pipeline incidents could cause cascading hazards such as flooding, transportation and hazardous materials incidents, civil unrest, and pandemic flu or disease.

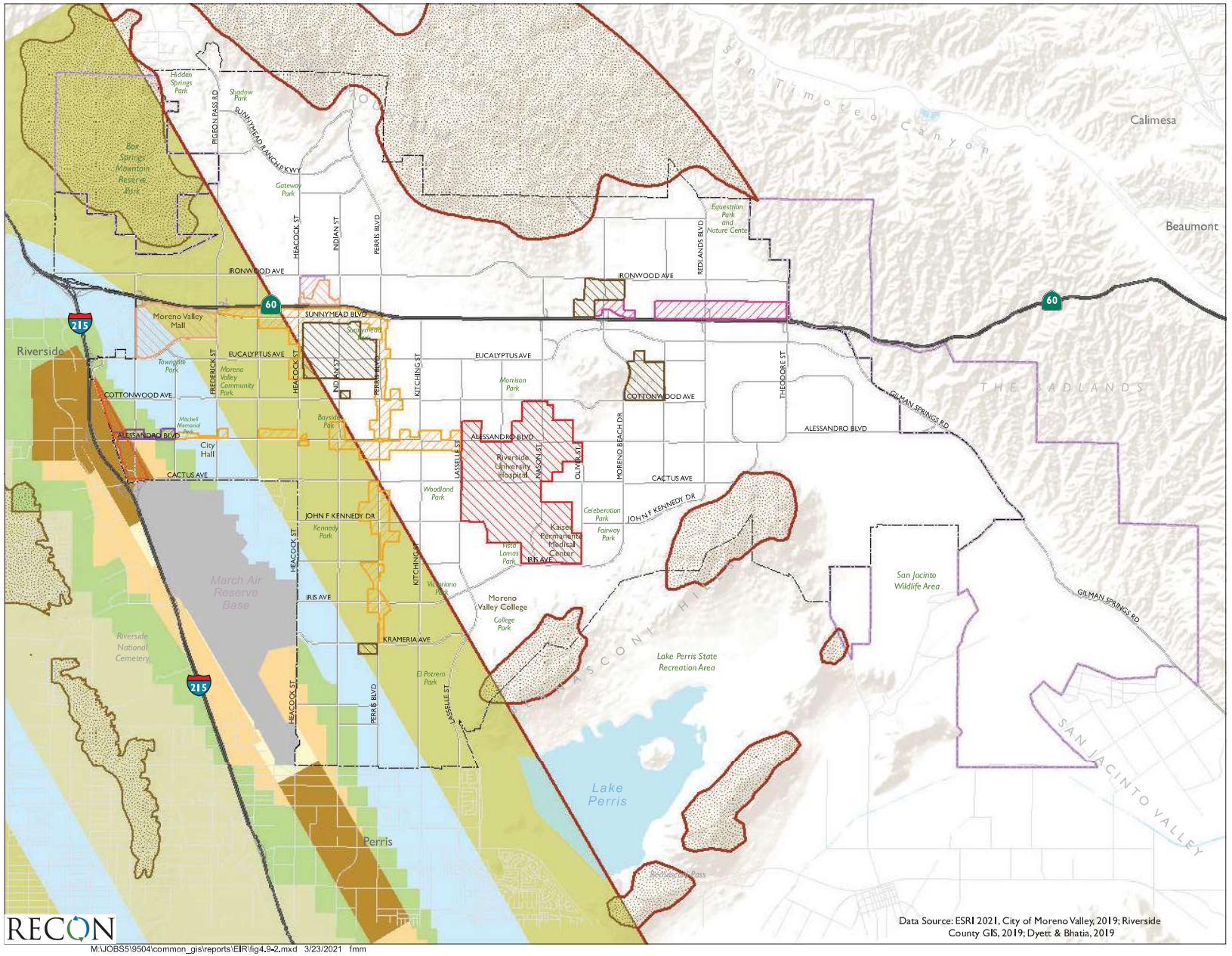


FIGURE 4.9-2

Airport Compatibility Zones

Map Source: March Air Reserve Base Airport Land Use Compatibility Plan, 2014

Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
M *(Military)*	*Federal Lands* ➤ No ALUC authority	*Federal Lands* ➤ No ALUC authority
A *Clear Zone (if not on base)*	*Noise Impact: Very High* ➤ High CNEL and single-event noise levels	*Risk Level: Very High* ➤ Dimensions set to include Clear Zone as indicated in Air Installation Compatible Use Zone (AICUZ) study for airport ➤ Generally on air base property or controlled by easements
B1 *Inner Approach/ Departure Zone*	*Noise Impact: High* ➤ Within or near 65-CNEL contour ➤ Single-event noise sufficient to disrupt many land use activities including indoors if windows open	*Risk Level: High* ➤ Within Accident Potential Zone I or II ➤ Additionally, zone boundary to north reflects turning flight tracks
B2 *High Noise Zone*	*Noise Impact: High* ➤ Within or near 65-CNEL contour ➤ Single-event noise sufficient to disrupt many land use activities including indoors if windows open	*Risk Level: Moderate* ➤ Beneath or adjacent to final approach and initial departure flight corridors or adjacent to runway ➤ Not within Accident Potential Zones
C1 *Primary Approach/ Departure Zone*	*Noise Impact: Moderate to High* ➤ Within or near 60-CNEL contour ➤ Single-event noise may be disruptive to noise-sensitive land use activities; aircraft <2,000 feet above runway elevation on arrival and generally <3,000 feet above runway elevation on departure	*Risk Level: Moderate* ➤ Beneath or adjacent to low altitude overflight corridors
C2 *Flight Corridor Zone*	*Noise Impact: Moderate* ➤ Within 60 CNEL contour, but more than 5 miles from runway end; or ➤ Outside 60-CNEL contour, but regularly overflown in mostly daytime flight training ➤ Single-event noise may be disruptive to noise-sensitive land use activities; aircraft <3,000 feet above runway elevation on arrival	*Risk Level: Moderate to Low* ➤ Distant (beyond 5 miles) portion of instrument arrival corridor; or ➤ Closed-circuit flight training activity corridors
D *Flight Corridor Buffer*	*Noise Impact: Moderate to Low* ➤ Mostly within 55-CNEL contour ➤ More concern with respect to individual loud events than with cumulative noise contours	*Risk Level: Low* ➤ On periphery of flight corridors ➤ Risk concern primarily with uses for which potential consequences are severe (e.g. very-high-intensity activities in a confined area)
E *Other Airport Environs*	*Noise Impact: Low* ➤ Beyond 55-CNEL contour ➤ Occasional overflights intrusive to some outdoor activities	*Risk Level: Low* ➤ Within outer or occasionally used portions of flight corridors
* *High Terrain Zone*	*Noise Impact: Low* ➤ Individual noise events slightly louder because high terrain reduces altitude of overflights	*Risk Level: Moderate* ➤ Moderate risk because high terrain constitutes airspace obstruction ➤ Concern is tall single objects (e.g., antennas)

FIGURE 4.9-3
Compatibility Zone Factors

RECON

M:\JOBS5\9504\env\graphics\fig4.9-3.ai 02/02/21 fmm

4.9.2 Applicable Regulatory Requirements

4.9.2.1 Federal Regulations

a. Comprehensive Environmental Response, Compensation, and Liability Act

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of the CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

b. Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) pertain primarily to emergency management of accidental releases. It requires formation of state and local emergency planning committees, which are responsible for collecting, material handling, and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the "right-to-know" provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

c. Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to the RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

d. Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, in the sky, or in pipelines. It includes provisions for materials classification, packaging, marking, labeling, placarding, and shipping documentation.

4.9.2.2 State Regulations

a. California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the U.S. Environmental Protection Agency (EPA), the integration of California and federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR, Title 26 "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22. For the purposes of clarity, because of the extensive reach of Title 22 and Title 26, many common household products sold in grocery stores and home improvement warehouses qualify as hazardous materials. These items include household cleaners, detergents, paint, motor oil, lubricants, glues, pesticides, etc. The term "hazardous materials" is also defined to include many on-site materials as well, such as lubricants, fuel, etc.

b. Cortese List: Section 65962.5(a)

Government Code Section 65962.5 requires the CalEPA to develop, at least annually, an updated Hazardous Waste and Substances Sites list (Cortese List). The Cortese List is a planning document used by the state, local agencies, and developers to comply with California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Release sites include or hazardous materials release sites may include the following:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- All sites listed pursuant to Section 25356 of the Health and Safety Code.
- All sites included in the Abandoned Site Assessment Program.

The California DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

c. The California Hazardous Material Management Act

The Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on-site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and state community right-to-know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code, Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, CFR, or equal to or greater than the amounts specified above, whichever amount is less.

An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is:

- A 100 percent or more increase in the quantity of a previously disclosed hazardous material;
- Any handling of a previously undisclosed hazardous material subject to the inventory requirements;
- Change of business address;
- Change of ownership;
- Change of business name; and/or
- Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is

necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the city, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health.

d. The California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the state of California. The HWCL requires a hazardous waste generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on-site facility or for periods greater than 144 hours at an off-site or transfer facility, which treats, or transports hazardous waste, to obtain a permit to conduct such activities. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state of California. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the number of types of wastes and waste management activities that are not covered by federal law with RCRA.

e. State Aeronautics Act (Public Utilities Code Section 21670, et seq.)

The Public Utilities Code establishes the requirement for the creation of airport land use commissions for every county in which there is located an airport that is served by a scheduled airline. Additionally, these sections of the Public Utilities Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

f. California Emergency Services Act

Government Code 8550–8692 provides for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur. The coordination of all emergency services is recognized by the state to mitigate the effects of natural, manmade, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and the resources of the state, and generally, to protect the health and safety and preserve the lives and property of the people of the state.

g. State Fire Plan

The state Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection

providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

4.9.2.3 Regional Regulations

a. Riverside County Area Plan

The County of Riverside, Health Services Agency, Department of Environmental Health, Hazardous Materials Division established the Riverside County Area Plan based on requirements of Chapter 6.95 of the California Health and Safety Code, Title 19 of the CCR and the U.S. EPA SARA Title III for emergency response to a release or threatened release of a hazardous material within the county. The Hazardous Materials Program and Response Plan contained in the Riverside County Area Plan serves the majority of the cities in Riverside County, including Moreno Valley.

As part of the Riverside County Area Plan, the federal Risk Management Plan (RMP), as incorporated and modified by the State of California Accidental Release Prevention (CalARP) Program, is designed to prevent harm to people and the surrounding environment by the use of various organized systems to identify and manage hazards. The goal of the CalARP Program is to make all facilities that handle regulated substances free of catastrophic incidents.

Any stationary source (business) that exceeds the threshold quantities of regulated substances shall submit a RMP under the CalARP Program. A Business Emergency Plan (BEP) must be submitted by all businesses that handle hazardous materials over a designated threshold quantity. Upon completion of a BEP, the BEP is submitted to Moreno Valley's local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the city is the County of Riverside Health Department, Environmental Health Division. A BEP contains vital information that may be utilized to minimize the effects and extent of a threatened release of hazardous materials. In addition, this information allows emergency response personnel to determine potential risks and hazards while developing a strategy for handling an emergency involving hazardous materials. Annually submitted RMPs are currently reviewed by the County Environmental Health Division.

If a hazardous materials emergency occurred within the city, the first response would be from the MVFD and from the CAL FIRE/Riverside County Fire Department Hazardous Materials Response Team (HMERT). The HMERT is stationed at the Beaumont Fire Station 20 in Beaumont.

Riverside County Airport Land Use Plan

The Riverside County Airport Land Use Commission (ALUC) assists local agencies by ensuring the development of compatible land uses in the vicinity of existing airports. Beginning in 2004, the Riverside County ALUC began adopting new versions of the airport land use compatibility plan (ALUCPs) for most Riverside County airports that are contained within a single, countywide document entitled Riverside County ALUCP. The ALUCP for each airport consists of the policies in Chapter 2 of that document that are applicable to all

of the airports in the County together with the airport-specific policies and maps contained within individual airport ALUCPs.

March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

The MARB/IPA Land Use Compatibility Plan (2014) was adopted by the Riverside County ALUC on November 13, 2014. The plan is primarily based on the U.S. Air Force's AICUZ dated August 2005. The compatibility zones and associated criteria set forth in the March ARB/IPA Land Use Compatibility Plan provide noise and safety compatibility protection equivalent or greater than the U.S. Air Force recommended criteria presented in the AICUZ.

Air Installation Compatible Use Zone Study

MARB/IPA is a joint-use airport, used for both military and civilian purposes. The airport is owned and regulated by the military. Military installations prepare AICUZ studies to protect vicinity land uses from hazard and noise impacts associated with military airports. The Air Force Reserve completed a new AICUZ study in 2018 for the MARB as an update of the AICUZ study completed in 2005. The AICUZ delineates the clear zones and accident potential zones for the joint use airfield, as well as the noise contours based upon the project flight operations and use of the aviation field. The noise contours include both military and civilian use, as projected in the Federal Aviation Administration (FAA) conformity determination.

4.9.2.4 Local Regulations

a. Local Hazard Mitigation Plan

The City's LHMP (2017) is designed to identify the city's hazards, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term natural or man-made hazard risks to human life and property for the city and its residents. The 2017 LHMP is an update to Moreno Valley's 2011 LHMP which the Moreno Valley City Council adopted on October 25, 2011 (Resolution No. 2011-102).

b. Emergency Operations Plan

The purpose of the City's Emergency Operations Plan (2009) is to establish a comprehensive, all-hazards approach to natural, man-made and technological disasters. The plan provides an overview of operational concepts; identifies the components of the City's Emergency Management Organization; and describes overall responsibilities of federal, state, and local agencies. Overall, the plan establishes a system for coordinating the prevention, preparedness, response, recovery and mitigation phases of emergency management in the city.

c. City of Moreno Valley Municipal Code

Title 8 of the City of Moreno Valley Municipal Code contains Chapter 8.36 California Fire Code which states that except as expressly excluded, the California Fire Code is adopted by the city. Section 8.36.050 provides fuel modification requirements for new construction.

Title 9 of the Municipal Code contains Chapter 9.07 Special Districts which addresses development's compatibility with the city's AICUZ. The AICUZ overlay district applies along the southwestern boundary of the Planning Area, adjacent to MARB. Development within the AICUZ is subject to specific development standards. Specifically, development within the AICUZ overlay district "shall avoid uses which concentrate large numbers of people; are noise sensitive; create hazards to aircraft operations; pose special health and safety hazards in the event of an aircraft accident; or involve public facilities and utilities for which disruption would have an adverse impact on large numbers of people" (Municipal Code Section 9.07.060(E)(1)).

4.9.3 Methodologies for Determining Impacts

The potential for significant hazards and hazardous materials impacts associated with the project has been evaluated based upon review of existing secondary source information and data relative to hazardous or potentially hazardous materials within the Planning Area.

4.9.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to hazards and hazardous materials are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact related to hazards and hazardous materials would occur if the project would:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2) 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;

3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

4) 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, create a significant hazard to the public or the environment;

5) Be 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, result in a safety hazard or excessive noise for people residing or working in the project area;

6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.5 Impact Analysis

4.9.5.1 Topic 1: Transport, Use, or Disposal of Hazardous Materials

Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous materials are any substance or combination of substances that may pose a risk to human health and safety or to the environment. Hazardous materials include toxic, corrosive, infectious, flammable, explosive and radioactive materials. Businesses, public or private institutions and private households all use or generate hazardous materials to some extent. Hazardous materials are routinely manufactured, used, stored or transported in nearly every community and therefore risk of upset or discharge could occur within the Planning Area.

The city has no direct authority to regulate the transport of hazardous materials on state highways. This activity is governed by the U.S. DOT, as described in Title 49 of the CFR and by Title 13 of the CCRs. The state Office of Hazardous Materials Safety enforces regulations for the safe transportation of hazardous materials. New development or redevelopment under the project could result in the need to transport hazardous materials to and from a specific project site. Future projects would be required to ascertain appropriate documentation for all hazardous waste that is transported in connection with project site activities and would be provided as required by hazardous materials regulations. Hazardous waste produced on-site would be subject to regulatory requirements associated with accumulation, time limits, proper storage locations and containers, and proper labeling. Additionally, for removal of hazardous waste from a particular site, hazardous waste generators would be required to use a certified hazardous waste transportation company, which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal. Specifically, the California Hazardous Materials Management Act requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan, which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. Additionally, future development would be required to adhere to the following goals and policies included in the 2021 GPU Safety Element related to hazardous materials.

Goal

S-1: Protect life and property from natural and human made hazards.

Policies

S.1-33 Continue to require remediation of hazardous material releases from previous land uses as part of any redevelopment activities.

S.1-34 Regulate development on sites with known contamination of soil or groundwater to ensure that construction workers, future occupants, adjacent residents, and the

environment are adequately protected from hazards associated with contamination.

S.1-35 Consistent with State regulations, require proper storage and disposal of hazardous materials to reduce the likelihood of leakage, explosions, or fire, and to properly contain potential spills from leaving the site.

Emergency Response

The 2021 GPU provides an overarching framework for addressing hazardous materials within the Planning Area. The 2021 GPU Safety Element contains the following goals, policies, and actions:

Therefore, adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies would ensure that the project would not result in potential hazards associated with the use, transport, storage, and sale of hazardous materials, and impacts would be less than significant.

4.9.5.2 Topic 2: Accidental Release of Hazardous Materials

Would the project 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?

Implementation of the project would result in an increase in residential units and an increase in business park, industrial, office, commercial, and civic and institutional uses throughout the Planning Area, particularly within the Concept Areas (see Figure 3-1). As noted above, implementation of the project could increase the use and transport of hazardous materials throughout the Planning Area, which could in turn, increase the potential for accidental releases of hazardous materials, which poses a threat to the health and safety of residents. Accidental releases would most likely occur in the commercial and industrial areas and along transportation routes leading to and from these areas. The major transportation corridors in the Planning Area include I-215 and SR-60. Along these roads, as well as in proximity to the Moreno Valley Industrial Area, are where most of the businesses that are likely to use, transport, dispose of, or create hazardous materials are located.

In addition to potential accidents during transport, accidental release of hazardous materials could result from leaking underground storage tanks, accidents causing a "spill" of a hazardous materials, and/or natural disasters causing the unauthorized release of a substance. If not cleaned up immediately and completely, accidental release of hazardous materials could cause contamination of soil, surface water and groundwater, in addition to any toxic fumes that might be generated. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

Future development and redevelopment projects implemented under the project would be required to adhere to applicable federal, state, regional, and local regulations focused on preventing release of hazardous materials. Specifically, any projects within the Planning Area that propose a stationary source (business) would be regulated by the Riverside County CalARP Program. Any proposed project that would exceed the threshold quantities of a regulated substance would be required to submit a RMP under the CalARP Program. Also, those proposed projects would be required to prepare a BEP which would be submitted to Moreno Valley's local CUPA. The CUPA with responsibility for the city is the County of Riverside Health Department, Environmental Health Division. The BEP would be required to contain all information necessary to ensure that the proposed business is taking those steps necessary to minimize the effects and extent of a threatened release of hazardous materials. In addition, this information would allow emergency response personnel to determine potential risks and hazards while developing a strategy for handling an emergency involving hazardous materials. Annually submitted RMPs are currently reviewed by the County Environmental Health Division.

If a hazardous materials emergency occurred within the Planning Area, the first response would be from the MVFD and CAL FIRE/Riverside County Fire Department HMERT. The HMERT is stationed at the Beaumont Fire Station 20. While there have been minimal disasters relating to hazardous material releases, the Emergency Operation Plan does recognize that due to the existence of many industrial business, the release of hazardous materials does pose a serious threat to the Planning Area (City of Moreno Valley 2009). Increases in industrial use as allowed under the 2021 GPU would further the potential threat. Oversight by the appropriate agencies and compliance with applicable regulations would ensure that risk are minimized. Additionally, future development would be required to adhere to the policies included in the 2021 GPU Safety Element, which includes policies that require both prevention and remediation of hazardous materials release. Therefore, adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies would ensure that the project would not result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and impacts would be less than significant.

4.9.5.3 Topic 3: Existing or Proposed Schools

Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Elementary, middle, and high schools are currently located within the Planning Area and could be located within a one-quarter mile of businesses utilizing, storing, or transporting hazardous materials. Implementation of the Concept Areas could result in an increase in business park uses within the Business Flex area; however, under the 2021 GPU, remaining areas throughout the city would develop consistent with the existing General Plan resulting in industrial uses placed in proximity to existing school sites.

As discussed above, all businesses which exceed the threshold quantities of a regulated substance would be required to submit a RMP and BEP under the CalARP Program. Each

BEP would include required information necessary to minimize potential release of hazardous materials. Therefore, adherence with applicable federal, state, regional, and local plans and regulations, as well as 2021 GPU policies, would ensure that the project would not result in an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools, and impacts would be less than significant.

4.9.5.4 Topic 4: Hazardous Materials Sites

Would the project 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, create a significant hazard to the public or the environment?

According to the Cortese List (DTSC, EnviroStor 2019), there are a total of 10 hazardous materials sites located throughout the Planning Area (see Figure 4.9-1 and Table 4.9-1). A number of these sites are located within the proposed Concept Areas (see Figure 3-1). In accordance with federal, state, regional, and local requirements, any new development or redevelopment that involves contaminated property would necessitate the clean-up and/or remediation of the property in accordance with applicable requirements and regulations. No construction would be permitted at such locations until a "no further action" clearance letter from the responsible agency. Therefore, adherence to applicable clean-up and/or remediation requirements and regulations would ensure that the project would not create a significant hazard associated with known hazardous materials sites, and impacts would be less than significant.

4.9.5.5: Topic 5: Airport Hazards

Would the project be 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, result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest airport is MARB, located southwest of the Planning Area. The airfield is operated by two entities, March Air Reserve Base (military) and March Inland Port Airport Authority (quasi-governmental/private). In addition, Perris Valley Airport is located approximately nine miles south of the Planning Area. Perris Valley Airport is a private airport that is open to the public and is utilized for skydiving and ballooning activities. Therefore, implementation of the project could result in new residential uses within the airport safety zones.

The Riverside County ALUC has established compatibility zones. As shown in Figure 4.9-2, parts of the Planning Area are located within the airport compatibility zones B1-APZ II, C1, and D. Several of the proposed Concept Areas lie within these zones. The land use restrictions for each of the compatibility zones provides limitations to development to minimize potential incidents of off-airport accidents to persons and property on the ground. Safety and airspace protection factors that are applicable to each zone is shown in Figure 4.9-3. In addition, a single Concept Area allowing Business Flex is located within the city's AICUZ.

Goal

S-4: Minimize airport safety hazards and promote compatibility with airport operations.

Policies

S.4-1 Limit hazards from flight operations in Moreno Valley through consistency with the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (March ALUC Plan).

S.4-2 Review all projects within the March Air Reserve Base/Inland Port Airport Influence Area for conformance with the compatibility criteria outlined in the March ALUC Plan.

S.4-3 Minimize the potential for development adjacent to the March Air Reserve Base/Inland Port Airport to adversely affect airport operations such as by reducing the potential for bird strikes and electromagnetic interference.

S.4-4 Coordinate with the March Air Reserve Base, the March Joint Powers Authority, and the March Inland Port Airport Authority to ensure that roadways are designed to safely accommodate airport vehicles and that airport-related traffic is routed to minimize hazards to or conflicts with Moreno Valley residents and businesses.

S.4-5 Use education and practical ways of reducing exposure to electromagnetic fields (EMFs) near transmission lines and other sources.

Actions

S.4-A Update applicable site development standards in the Development Code to incorporate measures for landscape design and maintenance on properties immediately adjacent to MARB, so as to reduce the potential for bird strikes. Standards should address planting palette, water features and maintenance practices.

Development within the AICUZ is subject to development standards and restrictions as set forth in Municipal Code Section 9.07.060. Future development that would be located within the city's special zone and/or within the ALUC compatibility zones would be required to adhere to all special regulations, including Municipal Code development standards and specific land use regulations regarding FAA notification imaginary surfaces, aircraft noise, and building heights. Consequently, the project would be consistent with adopted ALUCPs, as future development would be required to show compatibility with the requirements of the ALUCPs, the Municipal Code, and associated FAA requirements. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area, and impacts would be less than significant.

4.9.5.6 Topic 6: Emergency Response

Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City adopted its LHMP on October 4, 2011 (revised 2017). The LHMP contains a map of emergency evacuation routes in the community that includes I-215, SR-60 and major roadways through the city. The evaluation network consists of 129 miles of roadway designated as potential evacuation routes in the event of disaster, including 34 bridges and 127 water crossings.

An analysis of development patterns and roadway connectivity indicates that some residential areas in the northern and southeastern portions of the city have constrained emergency access. These include developments in Sunnymead Ranch, Moreno Valley Ranch, and Hidden Springs. These are typically locations where residential development pre-dates incorporation into the City, and where homes are constructed on cul-de-sacs with a single point of connection to the municipal roadway network. Approval of new development in these areas would be conditioned on review by MVFD and the Moreno Valley Public Works Department to ensure adequate emergency access. Additionally, the 2021 GPU includes policies that provide for use of the City's early warning notification system to proactively alert residents of areas with constrained access in the event of a disaster requiring emergency evacuation.

Evacuation times could be improved with the implementation of technological and design strategies. For example, where appropriate, the use of painted medians instead of raised medians on roadways in areas of highest risk would effectively allow for reversible lanes that create additional outbound capacity. Application of this strategy would approximately double evacuation capacity in the northwestern portion of the city. Further, remote control of signal timing from the City's Traffic Management Center (TMC) allows for real-time modifications to signal timing that can speed evacuation in the event of emergency. Approximately half of the traffic signals in the city are currently connected to the TMC, and the 2021 GPU provides for the implementation of this technology in vulnerable areas as a priority going forward. The 2021 GPU also includes policies that provide for exploration of additional actions to facilitate emergency evacuation, including the study of improved roadway connections, including Morton Road/Gernert Road in unincorporated Riverside County to the west of Moreno Valley.

Future development would be designed, constructed, and maintained in accordance with applicable standards associated with the LHMP, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Moreover, future development would be required to adhere to the policies included in the 2021 GPU Safety Element, which includes the goal to provide effective response to disasters and emergencies, as well as emergency evacuation.

Goal

S-2: Provide effective response to disasters and emergencies.

Policies

S.2-1 Use the adopted Local Hazard Mitigation Plan and Emergency Operations Plan to guide actions and investments for emergency preparedness and response.

S.2-2 Maintain area-wide mutual aid agreements and communication links with partner agencies and other participating jurisdictions.

S.2-3 Locate critical facilities, such as hospitals and health care facilities, emergency shelters, fire stations, police stations, emergency command centers, and other emergency service facilities and utilities so as to minimize exposure to flooding, seismic, geologic, wildfire, and other hazards.

S.2-4 Maintain and periodically update the Emergency Operations Plan to effectively prepare for, respond to, recover from, and mitigate the effects of natural or human caused disasters that require the planned, coordinated response of multiple agencies or jurisdictions.

S.2-5 Partner with Caltrans and neighboring jurisdictions on measures to protect critical evacuation routes such as SR-60 and I-215 and work with local agencies to develop contingency plans for operations when these and other roads are inoperable due to flooding or wildfire.

S.2-A Where possible, avoid the installation of raised and planted medians in areas shown on Map S-6. The use of painted medians in these areas will allow for reversible lanes that create additional outbound capacity to facilitate emergency evacuation.

S.2-6 Continue to engage the Police and Fire departments in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.

S.2-7 Promote a greater community awareness and understanding of natural and humanmade hazards and steps that can be taken to reduce personal risk by:

- Continuing FEMA Community Emergency Response Team Training to educate volunteers about disaster preparedness and train them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

- Providing emergency preparedness presentations to service clubs, homeowner's associations and other organizations to enhance preparedness.

S.2-8 Minimize risk and threat of infection or disease by encouraging and promoting participation in annual/seasonal immunization efforts.

Actions

S.2-C Provide information on major evacuation routes and notification systems used for emergency alerts to residents and businesses in Moreno Valley.

S.2-D Use the early warning notification system to notify residents by phone, text, or email of the need to evacuate in the event of emergency and the location of evacuation centers, particularly residents of vulnerable areas and neighborhoods with constrained emergency access.

S.2-E Prioritize the connection of traffic signals in areas shown on Map S-7 to the City's Traffic Management Center to allow for real-time modifications to signal timing that can speed evacuation in the event of emergency.

S.2-F Work with Riverside County, railroad operators, and other emergency response agencies to address disconnected routes and explore roadway improvements that can provide better emergency access under emergency evacuation scenarios.

S.2-G Evaluate options for ensuring emergency power at critical and community facilities, including microgrids, solar capture and storage, distributed energy, and back-up generators. Consider the ability to reduce utility costs and carbon emissions in the assessment.

S.2-H Consider creating neighborhood level plans to improve initial emergency response, subsequent recovery, and ongoing self-sufficiency within the city.

Additionally, the 2021 Circulation Element identifies roadway improvements that would increase traffic capacity, and thereby ensure that the roadway network would be capable of accommodating traffic flows during emergency response and emergency evacuation. Therefore, adherence to applicable LHMP standards and 2021 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

4.9.5.7 Topic 7: Wildland Fires

Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Threats associated with wildland fires are also addressed in Section 4.18 of this EIR. The potential for wildland fires represents a hazard, particularly within areas adjacent to open space or within close proximity to wildland fuels. As shown in Figures 4.18-1 and 4.18-2 presented in Section 4.18 of this EIR, the proposed Concept Areas have largely avoided areas

identified as having High, Very High, or Extreme CAL FIRE threat designations. The proposed land use changes located near these CAL FIRE threat designations are limited to the Residential Density Change Concept Area located immediately east of Moreno Beach Drive designated with a Very High CALFIRE Fire Hazard Severity Zone (FHSV) (see Figure 4.18-1) and designated as a mix of Extreme, Very High, and High CAL FIRE Threat Areas (see Figure 4.18-2) Additionally, the Residential Density Change Concept Area north of SR-60 is located adjacent to an area designated with a Very High CAL FIRE FHSV, and the Highway Office/Commercial Concept Area is located adjacent to an area designated with a Moderate CAL FIRE FHSV (see Figure 4.18-1). Furthermore, future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations may also be located within, or adjacent to land identified as having High, Very High, or Extreme CAL FIRE threat designations. For instance, areas along the entire northern perimeter of the Planning Area and areas adjacent to the Bernasconi Hills in the southeastern part of the city are designated Very High FHSZs, as are areas along the eastern perimeter of the Planning Area. There is existing low density single-family residential development in and adjacent to these Very High FHSZs, notably in the vicinity of Petit Hill north of Ironwood and south of Iris and John F. Kennedy, where residential neighborhoods abut the Bernasconi Hills. Prolonged droughts coupled with high winds and dry vegetation create the highest fire risk in these areas, particularly in autumn and winter, when the Santa Ana winds typically blow and wildfire risk increases significantly. In addition to the direct physical threat to life and property, smoke released during an event can have a detrimental effect on air quality and lead to health risks from smoke inhalation. To address this risk, the City cooperates with CAL FIRE and the Riverside County Fire Department through cooperative fire protection agreements. Portions of the planning area within the SOI are designated State Responsibility Areas (SRA), where the state of California is financially responsible for the prevention and suppression of wildfires, while the MVFD has primary responsibility for Local Responsibility Areas (LRA) within the city limit.

Wildland urban interface areas exist on the north, east, and south edges of the planning area, including Box Springs Mountain and San Timoteo Canyon to the north, the "Badlands" to the east, and Lake Perris State Park to the south. Portions of these areas within the city limit are partially developed with low density single-family housing, while portions in the SOI are largely undeveloped. Within the city limit, large tracts of land in wildland urban interface areas are designated Parks/Open Space on the 2021 GPU proposed land use map, which does not permit residential development, and existing development is limited to low density single-family homes. Undeveloped lands in wildland urban interface areas within the city limit are designated Hillside Residential or Rural Residential, which permit only very low density residential development. The City has adopted specific requirements for development in these areas. All new construction in these areas is required to prepare a fuel modification plan before approval of tentative maps and grading permits. The City has also established a weed hazard abatement program, which is overseen by MVFD. This program is designed to create defensible space, or a buffer between a building and the flammable vegetation that surrounds it, in order to stop or slow the spread of wildfire and protect property.

The 2021 GPU would also require preparation of a fire protection plan (FPP) approved by the City prior to approving new development in Very High FHSZs. FPPs must include mitigation measures designed to address the unique problems resulting from the location, topography, geology, flammable vegetation, and climate of the proposed site. They must also consider water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space, and vegetation management, and must be consistent with the requirements of California Building Code Chapter 7A, the International Wildland-Urban Interface Code, and the Moreno Valley Municipal Code. Additionally, the 2021 GPU includes policies to provide fire prevention and emergency response services that minimize fire risks and protect life and property, and monitor the pace and location of development within the Planning Area and coordinate the timing of fire station construction or expansion to the rise of service demand in surrounding areas to ensure fire safety. Therefore, compliance with MVFD regulations and 2021 GPU policies would ensure that project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, and impacts would be less than significant.

4.9.6 Cumulative Analysis

Future development could result in increased commercial and industrial uses which require the transport, use, and disposal of hazardous materials. New commercial and industrial could also result in an increase in the amount of truck traffic in the area, as well as the number of trucks potentially transporting hazardous materials. Therefore, the project could contribute to a cumulatively significant impact associated with hazardous materials. However, future development and redevelopment would be required to adhere to all relevant federal, state, regional, and local plans, Municipal Code regulations, and proposed 2021 GPU policies related to hazardous materials. Specifically, future projects would be required to submit RMPs under the CalARP Program and BEPs, if applicable, to provide all required information necessary to ensure that the proposed business is minimizing the potential for accidental release of hazardous materials. Similarly, future development and redevelopment would be required to adhere to applicable regulations relating to clean-up and/or remediation of hazardous materials, emergency access, and airport hazards. Furthermore, future development and redevelopment would be required to adhere to MVFD regulations related to wildfire, and 2021 GPU policies includes policies to provide fire prevention and emergency response services that minimize fire risks and protect life and property, and monitor the pace and location of development within the Planning Area and coordinate the timing of fire station construction or expansion to the rise of service demand in surrounding areas to ensure fire safety. Therefore, the project would not contribute to a cumulative impact related to hazards and hazardous materials.

4.9.7 Significance of Impacts before Mitigation

Impacts would be less than significant. No mitigation is required.

4.9.8 Mitigation

Impacts would be less than significant. No mitigation is required.

4.9.9 Significance of Impacts after Mitigation

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Hydrology and Water Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.10 Hydrology/Water Quality

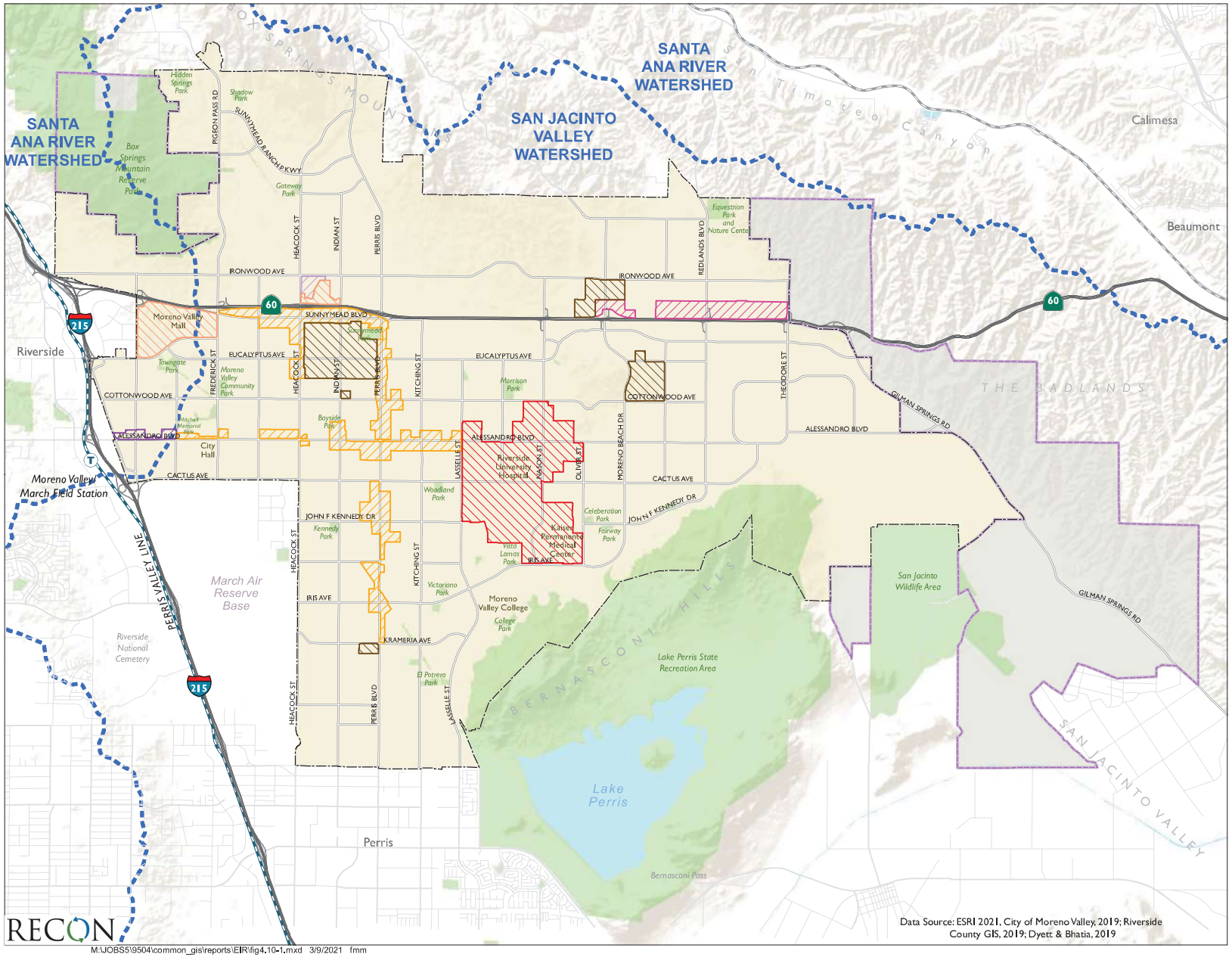
This section analyzes potentially significant impacts related to hydrology and water quality that could result from implementation of the project, which consists of the General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence (SOI), which are collectively referred to as the Planning Area. This analysis relies on secondary source information including, but not limited to, watershed, flooding, and hydrological conditions from geographic information systems (GIS) databases. The analysis also considered City programs and plans, and data available from the California Regional Water Quality Control Board (RWQCB) - Santa Ana Region (SAR).

4.10.1 Existing Conditions

4.10.1.1 Watersheds/Water Quality

Surface water quality in the Planning Area is regulated by RWQCB-SAR 8. The RWQCB-SAR Basin Plan (Basin Plan) establishes water quality standards for all the ground and surface waters of the region. As shown in Figure 4.10-1, the SAR includes the upper and lower Santa Ana River watersheds and the San Jacinto River watershed, with several other small drainage areas. Primary waterways within the Planning Area include Santa Ana River, San Jacinto River, Perris Lake, Railroad Canyon Reservoir (Canyon Lake), and Lake Elsinore. Section 303(d) of the federal Clean Water Act (CWA) defines water quality standards as consisting of both the uses of surface waters (beneficial uses) and the water quality criteria applied to protect those uses (water quality objectives). Beneficial uses for these waters, which have been assigned in the Basin Plan, include municipal and domestic supply, agricultural supply, groundwater recharge, industrial service supply, industrial process supply, contact water recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, and rare, threatened, or endangered habitat.

Most of the Planning Area drains into the San Jacinto River. The river exits the San Bernardino Mountains and continues westward to the Prado Dam, through the Santa Ana River Canyon, and then flows to the Pacific Ocean. In addition to being a major flood control facility, the river also serves as a means by which groundwater basins are recharged and is an important wildlife habitat.



City of Moreno Valley
Sphere of Influence
Watershed Boundaries

General Plan Concept Areas

Mixed Use
- Downtown Center
- Center Mixed Use
- Corridor Mixed Use

Commercial/Office/Industrial
- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex

Residential
- Residential Density Changes

0 Miles 1

FIGURE 4.10-1
Watersheds

A minor topographic divide extending southward from the Box Springs Mountains across the western portion of the Planning Area acts as a drainage divide between the watersheds of the San Jacinto and Santa Ana rivers. All storm water runoff east of the topographic divide generally flows in a southerly direction to the San Jacinto River. Storm water west of the divide flows in a westerly direction to the Santa Ana River. The San Jacinto River drains approximately 540 square miles to the Railroad Canyon Reservoir (Canyon Lake) and the Railroad Canyon Reservoir occasionally discharges into Lake Elsinore. The Santa Ana RWQCB does not identify any water bodies within the Planning Area, or within the area which the Planning Area drains into, as currently listed on the federal CWA 303(d) list.

4.10.1.2 Storm Water Drainage Systems

The local storm water conveyance system is designed to prevent flooding by transporting water away from developed areas. Unfiltered and untreated storm water can contain a number of pollutants that may eventually flow to surface waters. The chief cause of urban storm water pollution is the discharge of inadequately treated waste or pollutants into the natural water system. The existing storm drains located throughout the Planning Area are shown in Figure 4-10.2. The Riverside County Flood Control and Water Conservation District (RCFCWCD) has prepared four master drainage plans (Sunnymead Area, West End, Perris Valley, and Moreno), which address the three main storm channels covering different portions of the city.

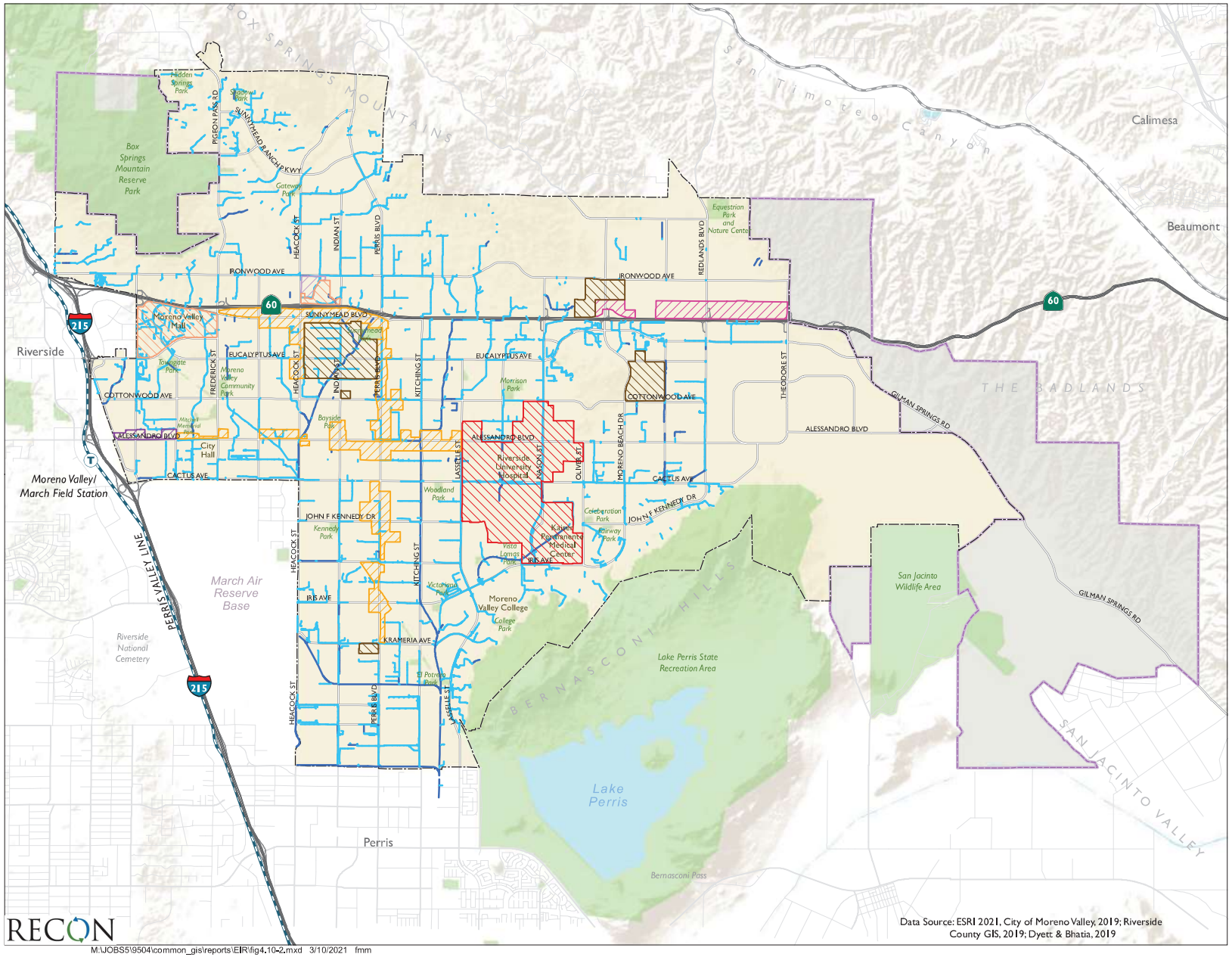
4.10.1.3 Flooding and Dam Inundation

There are four types of flooding conditions that exist within the Planning Area: flooding in defined watercourses; ponding; sheet flow; and dam inundation. Flooding within defined watercourses occurs within drainage channels and immediately adjacent floodplains. Ponding occurs when water flow is obstructed due to manmade obstacles such as the embankments of State Route 60 (SR-60) and other roadways. Sheet flow occurs when capacities of defined watercourses are exceeded and water flows over broad areas (Moreno Valley 2017).

Several portions of the Planning Area are subject to a 100-year flood, meaning a flood with a one percent chance of occurring in any given year. Based on Federal Emergency Management Agency (FEMA) mapping (Riverside County Geographic Information Systems [GIS] 2019), Figure 4.10-3 shows the FEMA floodplains/floodways throughout the Planning Area. Additionally, Table 4-10-1 accounts for the acreage within the Planning Area within each FEMA flood designation.

Table 4.10-1
FEMA Floodplains/Floodways within the Planning Area

Floodplain/Floodway	Acres
500-year Floodplain	4,804.94
100-year Floodplain	873.93
Floodway	2,124.92
TOTAL	**7,803.79**
SOURCE: Riverside County GIS 2019.	



City of Moreno Valley
Sphere of Influence
Storm Water Main
Open Channel

General Plan Concept Areas

Mixed Use

Downtown Center
Center Mixed Use
Corridor Mixed Use

Commercial/Office/Industrial

Highway Office/Commercial
Business Park/Light Industrial
Business Flex

Residential

Residential Density Changes

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019

RECON

M:\JOBS5\9504\common_gis\reports\EIR\fig4.10-2.mxd 3/10/2021 fmm

FIGURE 4.10-2
Existing Storm Water Facilities

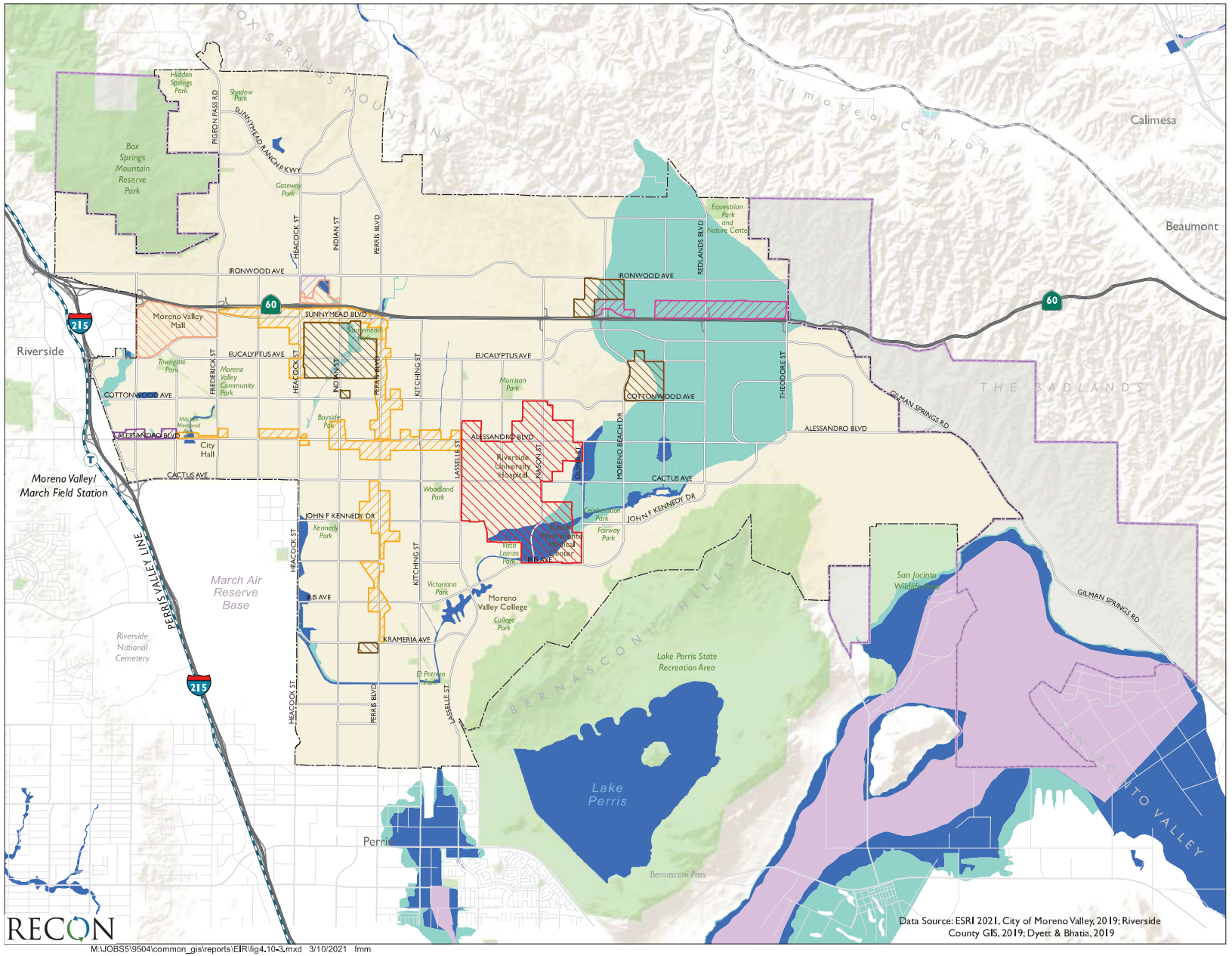


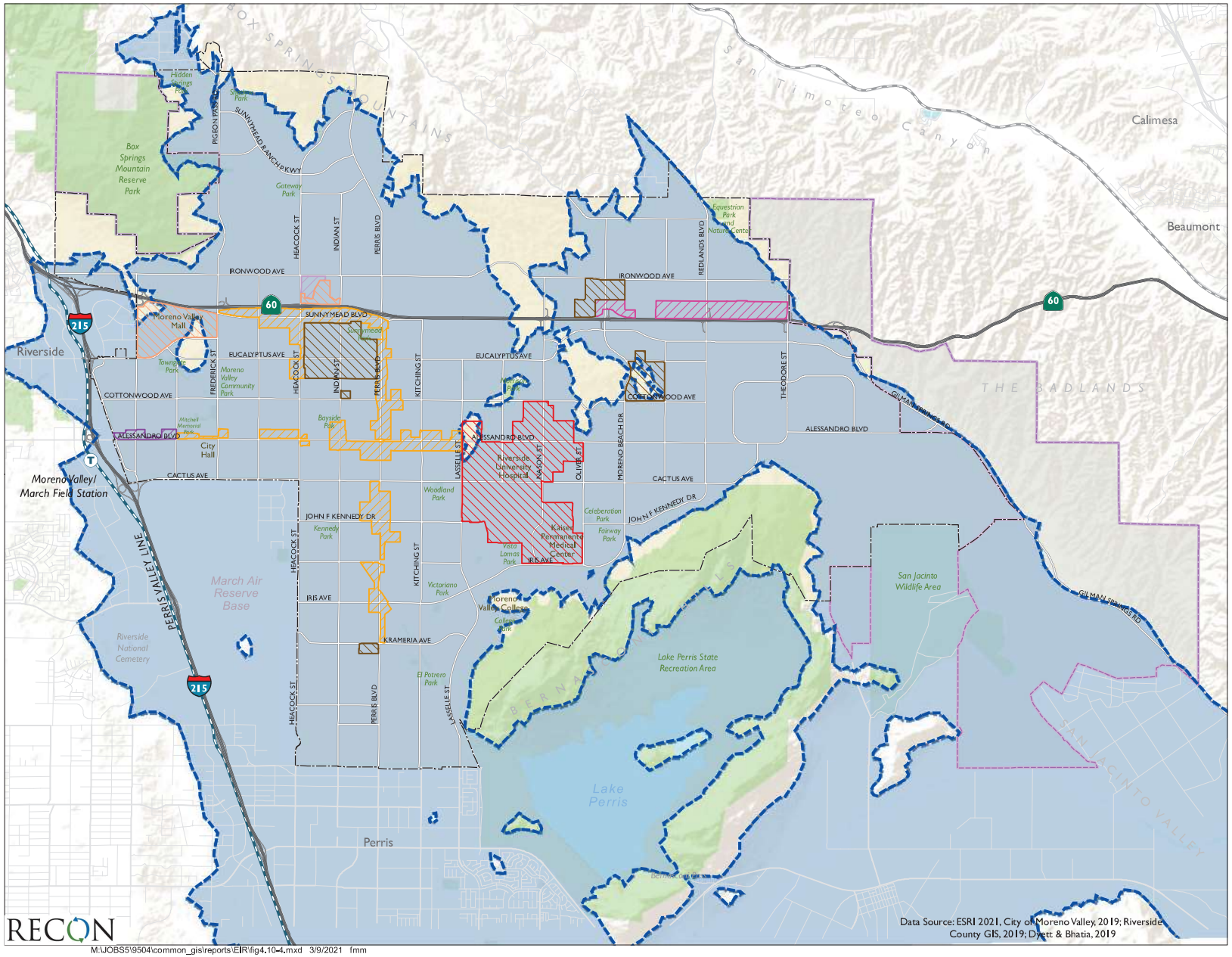
FIGURE 4.10-3
FEMA Floodplains and Floodway

The Planning Area has been susceptible to flooding in the past. Flooding could occur from severe rainfall or from dam failure, seiches, or tsunamis. Dam inundation is flooding caused by the release of impounded water from structural failure or overtopping of a dam. Seiches or tsunamis can result from abrupt movements of large volumes of water due to earthquakes, landslides, volcanic eruptions, meteoric impacts, or onshore slope failure. Portions of the Planning Area are subject to dam inundation from two dams: Pigeon Pass Dam (Poorman's Reservoir) and Perris Dam. Specifically, failure of the Pigeon Pass Dam could result in extensive flooding along the downstream watercourse. The risk of flooding due to dam failure is limited to the period during and immediately after major storms. The reservoir does not retain water throughout the year. Failure of the Perris Dam would only affect a very small area south of Nandina Avenue along the Perris Valley storm drain and the Mystic Lake area in the southeast corner of Moreno Valley (Moreno Valley 2017). Dam remediation has been ongoing to protect against failure during a seismic event (Moreno Valley 2017).

4.10.1.4 Groundwater

According to the California Natural Resources Agency, the Planning Area lies within the San Jacinto groundwater basin. Figure 4.10-4 depicts the location of the San Jacinto groundwater basin in relation to the Planning Area. The California State Department of Water Resources (DWR) has estimated the groundwater basins in the vicinity of the planning area to have capacity for approximately one million acre-feet of water. It is estimated that the basins store approximately 620,000 acre-feet of water.

Water resources in the Planning Area are supported by potable groundwater wells, treated water from two desalination plants, imported water from Municipal Water District of Southern California (MWD) and water imported from other agencies. While potable ground water well account for similar acre-feet per of gross water use, this amount has reduced as a percentage of gross water use as use has increased and other available water supplies have been available including desalters and water filtration plants, and reliance on imported water from MWD and other agencies (Eastern Municipal Water District [EMWD] 2016)



RECON

M:\JOBS5\9504\common_gis\reports\EIR\fig4.10-4.mxd 3/9/2021 fmm

Data Source: ESRI 2021, City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019

FIGURE 4.10-4
Groundwater

4.10.2 Applicable Regulatory Requirements

4.10.2.1 Federal Regulations

a. Federal Water Pollution Control Act (also known as Clean Water Act)

The CWA, enacted in 1972, is intended to restore and maintain the integrity of the nation's water through a system of water quality standards, discharge limitations, and permits. The fundamental purpose of the CWA is the protection of designated beneficial uses of water resources. Section 303(d) of the CWA defines water quality standards as consisting of both the uses of surface waters (beneficial uses) and the water quality criteria applied to protect those uses (water quality objectives). State and regional water quality control boards have been charged with ensuring that beneficial uses and water quality objectives are established for all waters of the state. Development in the Planning Area would be subject to the National Pollutant Discharge Elimination System (NPDES) to protect water resources and control pollutants in runoff. The program requires communities of a certain size to obtain permits from the RWQCB-SAR. Moreno Valley, Riverside County and 23 other cities and agencies obtained a joint NPDES permit from the RWQCB-SAR. As a co-permittee, the City has a number of obligations and responsibilities including maintaining storm drain systems, pursue enforcement for failure to comply with the permit, and respond to emergency situations related to pollution discharge.

The NPDES program also requires operators of construction sites one acre or larger to prepare a Storm Water Pollution Prevention Plan (SWPPP) for construction activities and obtain authorization to discharge storm water under an NPDES construction storm water permit (Moreno Valley 2019). The NDPES program also requires certain land uses (e.g., industrial uses) to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted.

b. Federal Emergency Management Agency

FEMA is the primary agency in charge of administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for delineating areas of flood hazards. It is then the responsibility of state and local agencies to implement the means of carrying out FEMA requirements. As discussed above, portions of the Planning Area are located within a mapped flood hazard area (see Figure 4.10-3).

4.10.2.2 State Regulations

a. Porter-Cologne Water Quality Control Act

This act, which is a portion of the State Water Code, establishes responsibilities and authorities of the state's RWQCB. Each RWQCB is directed to adopt water quality control plans for the waters of an area to include identification of beneficial uses, objectives to protect

those uses, and an implementation plan to accomplish the objectives. The Planning Area is under the jurisdiction of the RWQCB-SAR.

b. Sustainable Groundwater Management Act

In 2014, California lawmakers passed the Sustainable Groundwater Management Act (SGMA), which mandates that all groundwater basins within the state be managed to ensure long-term water supply reliability. Under SGMA, each high and medium priority basin, as identified by the California DWR, must have a groundwater sustainability agency that will be responsible for groundwater monitoring and the development of a groundwater sustainability plan to ensure long-term groundwater sustainability and prevent overdraft.

4.10.2.3 Regional Regulations

a. West San Jacinto Groundwater Sustainability Agency

Under SGMA, each high and medium priority basin, as identified by the California DWR, is required to have a groundwater sustainability agency that will be responsible for groundwater management and development of a groundwater sustainability plan. The EMWD Board of Directors is the groundwater sustainability agency for the West San Jacinto Groundwater Basin and is responsible for development and implementation of a groundwater sustainability plan (EMWD 2020).

b. Regional Water Quality Control Board Requirements for Septic Systems

All proposed septic systems (subsurface sewage disposal systems) must comply with RWQCB regulations designed to prevent groundwater contamination from septic system effluent.

c. Municipal Storm Water Permit

The current Municipal Separate Storm Sewer System (MS4) Permit (MS4 Permit) (R8-2010-0033) became effective for listed co-permittees, including the County, on June 27, 2013. The MS4 Permit implements a regional strategy for water quality and related concerns, and mandates a watershed-based approach that often encompasses multiple jurisdictions. MS4 co-permittees; and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities.

d. Santa Ana Region of Riverside County Water Quality Management Plan

The RWQCB-SAR WQMP is a guidance document that helps to design projects in compliance with water quality mitigation requirements for priority development projects. These

requirements are specified in the MS4 Permit issued to the RCFCWCD, County of Riverside, and other cities within the Santa Ana River watershed. The WQMP outlines those categories of projects, called priority development permits, that require project level WQMPs. Examples of projects that require a WQMP include:

- New development that creates 10,000 square feet or more of impervious surface (collectively over the entire project site), including commercial and industrial projects and residential housing subdivisions requiring a Final Map (i.e., detached single-family home subdivisions, multi-family attached subdivisions, condominiums, apartments, etc.); mixed use and public projects (excluding road projects).

- Hillside developments disturbing 5,000 square feet or more which are located on areas with known erosive soil conditions or where the natural slope is 25 percent or more.

- Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas.

- The addition or replacement of 5,000 square feet of impervious surface on an already developed site.

Project-specific WQMPs are required to include storm water best management practices (BMPs) addressing post-construction activities. WQMPs could include the requirement for low impact development (LID) BMPs and hydromodification BMPs, as necessary, to address water quality concerns. LID comprises a set of technologically feasible and cost-effective approaches to stormwater management and land development that combine a hydrologically functional site design with pollution prevention measures to compensate for land development impacts on hydrology and water quality. LID techniques mimic the site's predevelopment hydrology by using site design techniques that store, infiltrate, evapotranspire, bio-treat, bio-filter, bio-retain, or detain runoff close to its source.

e. Santa Ana River Basin Water Quality Control Plan

As mentioned above, the State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans that conform to state water quality policy. The city is subject to the RWQCB-SAR's Santa Ana River Basin Water Quality Control Plan, which designates beneficial uses of water bodies to be protected and establishes water quality objectives.

f. Riverside County Flood Control and Water Conservation District

The RCFCWCD is the regional flood management authority for the western part of Riverside County, including the city. The purpose of the RCFCWCD is to identify flood hazards and problems, regulate floodplains and development, regulate drainage and development, construct and maintain flood control structures and facilities, and complete County watercourse and drainage planning. The RCFCWCD is funded through a share of property taxes in addition to other funding sources. As a special district, the RCFCWCD's jurisdiction extends over the western 40 percent of Riverside County.

g. Eastern Municipal Water District 2015 Urban Water Management Plan

The EMWD 2015 Urban Water Management Plan (UWMP) provides an overview of the EMWD's long-term water supplies and demands and reports on the District's progress towards meeting the water use efficiency targets. The plan includes demand management measures that the EMWD has agreed to implement to achieve water supply savings.

4.10.2.4 Local Regulations

a. Master Drainage Plans

Master Drainage Plans (MDPs), as administered by the RCFCWCD, identifies a conceptual network of drainage facilities needed to properly convey water at a regional level throughout portions of the city. There are four MDPs, managed by the RCFCWCD, that cover the majority of the Planning Area, namely they are the Moreno MDP, the West End MDP, the Sunnymead MDP, and the Perris Valley MDP. The MDPs address regional level facilities in Moreno Valley and provide a network of drainage facilities which, when implemented, will provide proper water conveyance to the community as development continues. The fully implemented MDPs should, in conjunction with ultimate street improvements for the area within the plan boundaries, contain the 100-year frequency flows. The MDPs identify preferred facility alignments, sizing, and right-of-way required for the future construction of MDP facilities to protect existing and future development. The MDPs are intended to be used as a guide for future developments and that such developments be required to conform to the MDPs.

b. Local Hazard Mitigation Plan

The Local Hazard Mitigation Plan (LHMP) is designed to identify the city's hazards, estimate the probability of future occurrences, and set goals to mitigate potential risks to reduce or eliminate long-term natural or made-made hazard risks to life and property. The LHMP identifies specific hazards related to flooding and erosion that could result in damage to life and/or property. The LHMP also establishes hazard priority and identifies mitigation strategies for reducing losses associated with these hazards.

c. City of Moreno Valley Municipal Code

Title 8 of the City of Moreno Valley Municipal Code (Municipal Code) contains a number of regulations that address hydrology and water quality.

Chapter 8.10 Stormwater/Urban Runoff Management and Discharge Controls contains requirements that address reducing pollutants in storm water discharges to protect and enhance the water quality of local watercourses. In addition to requiring a NPDES permit, Municipal Code Section 8.10.050 specifies that new development and significant redevelopment control stormwater runoff so as to prevent any deterioration of water quality

through the identification of BMPs. The BMPs may include, but are not limited to, the following:

1. Increase permeable areas by leaving highly porous soil and low-lying areas undisturbed; by incorporating landscaping, green roofs and open space into the project design; by using porous materials for or near driveways, drive aisles, parking stalls and low volume roads and walkways; and by incorporating detention ponds and infiltration pits into the project design.

2. Direct runoff to permeable areas by orienting it away from impermeable areas to swales, berms, green strip filters, gravel beds, rain gardens, pervious pavement or other approved green infrastructure and French drains; by installing rain gutters oriented towards permeable areas; by modifying the grade of the property to divert flow to permeable areas and minimize the amount of stormwater runoff leaving the property; and by designing curbs, berms or other structures such that they do not isolate permeable or landscaped areas.

3. Maximize stormwater storage for reuse by using retention structures, subsurface areas, cisterns, or other structures to store stormwater runoff for reuse or slow release.

4. Rain gardens may be proposed in-lieu of a water quality basin when applicable and approved by the city engineer.

Chapter 8.12 Floodplain Ordinance provides regulations to minimize public and private losses due to flood conditions. Projects located within special flood hazard areas as identified by FEMA are required to obtain development permits. Construction within the special flood hazards areas is required to use standards of constructions set forth in Municipal Code Section 8.12.170, including:

1. Anchoring measures.
2. Flood resistant construction materials.
3. Adequate elevation and flood proofing.

Chapter 8.21 Grading Regulations includes the requirement for all project's that require a grading plan to also submit an erosion control plan. Pursuant to Municipal Code Section 8.21.160(B) erosion control plans are required to include details of protective measures, including desiltation basins or other temporary drainage or control measures or both, as may be necessary to protect adjoining public or private property from damage by erosion, flooding, or mud and/or debris deposits which may originate from the site or result from the grading operations. Additionally, Municipal Code Section 8.21.160(E) requires the containment of all sediment stating that runoff from disturbed areas is required to be detained or filtered by berms, swales, ditches, filter strips or other means as necessary to prevent the escape of sediment from the site.

d. Moreno Valley Capital Improvement Plan

The City's Capital Improvement Plan (CIP) (2020c) is an important planning and managing tool for the city's growth and development as well as a strategy for the maintenance of existing infrastructure. The CIP identifies projects required through the ultimate General Plan build-out of the city, which includes approximately $1.53 billion for 317 projects to improve and maintain the city's infrastructure.

4.10.3 Methodologies for Determining Impacts

The potential for significant impacts associated with the project has been determined based upon review of existing secondary source information and data relative to the hydrology and water quality resources available for the Planning Area.

4.10.4 Basis for Determining Significance

Thresholds used to evaluate impacts to hydrology and water quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

3) 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;

4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.5 Impact Analysis

4.10.5.1 Topic 1: Violate Water Quality Standards/Degrade Water Quality

Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project would result in development of new uses throughout the Planning Area, as shown in Figure 3-1. Additionally, currently developed but under-developed parcels could also be redeveloped with more intensive uses, especially to meet the City's Housing Element Regional Housing Needs Assessment, and land uses outside the proposed Concept Areas would be developed consistent with the existing 2006 General Plan. Both construction and operational activities associated with new development (and redevelopment) could contribute to a degradation of water quality.

a. Construction-Related Water Quality Impacts

Future construction would involve grading, paving, utility installation, building construction, and landscaping installation, which could result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other pollutants with the potential to affect water quality.

Pursuant to the requirements of the RWQCB-SAR and Municipal Code Chapter 8.10, future development would be required to obtain a Construction General Permit (CGP) Permit for construction activities. The CGP permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one acre of total land area. Additionally, all future development would be required to comply with the SAR Basin Water Quality Control Program. Compliance with the CGP Permit and the SAR Basin Water Quality Control Plan requires completion and submittal of a SWPPP for construction-related activities. The SWPPP would identify potential runoff that could result from the proposed construction and specify the BMPs that would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged. Therefore, adherence to relevant plans and programs, as well as Municipal Code requirements would ensure that future development would not violate any water quality standards or degrade surface or ground water quality, and construction-related impacts would be less than significant.

b. Post-Development Water Quality Impacts

Storm water pollutants commonly associated with the land uses proposed by the project include bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease. Pursuant to the Municipal Code Chapter 8.10, future development would be required to implement a WQMP to demonstrate compliance with the City's MS4 Permit and to minimize the release of potential waterborne

pollutants. Each site-specific WQMP would include post-construction BMPs that would be permanent design features to address the reduction of storm water runoff. In addition to the WQMP, future industrial development would be governed by the Industrial General Permit (IGP), which requires the preparation of a SWPPP for operational activities. Moreover, future development would be required to adhere to the GPU Open Space and Resource Conservation (OSRC) Element, which includes the goal to minimize water pollution, and policies that require storm water pollution prevention. Therefore, adherence to relevant plans and programs, including the IGP, as well as Municipal Code requirements for preparation of a WQMP and applicable GPU policies, would ensure that future development would not violate any water quality standards or degrade surface or ground water quality, and long-term operational impacts would be less than significant.

4.10.5.2 Topic 2: Deplete Groundwater Supplies

Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Future development would increase in the amount of impervious surfaces within the Planning Area, which would reduce the amount of rainwater that would infiltrate the soil and incrementally reduce groundwater recharge rates over time. However, as described in Section 4.10.1.4 above, domestic water supplies throughout the Planning Area are not primarily reliant on groundwater. Additionally, the framework of the SGMA requires that groundwater basins within the state are managed to ensure long-term water supply reliability. Furthermore, the project has been designed to minimize the increase in impervious surfaces by primarily focusing on future development and redevelopment within the proposed Concept Areas that consist of clusters of vacant and underutilized land within the city limit that would allow for continued groundwater recharge in substantial portions of the Planning Area. Additionally, the OSRC Element includes goals to preserve and protect natural resources, and identifies policies to ensure groundwater protection and improve groundwater infiltration measures. Therefore, adherence to applicable GPU policies would ensure that future development would neither substantially deplete groundwater supplies nor interfere substantially with groundwater recharge, and impacts would be less than significant.

4.10.5.3 Topic 3: Drainage Patterns

Would the project 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?

a. Erosion or Siltation

Future development and redevelopment could alter drainage patterns by increasing the amount of impervious surfaces (e.g., streets, sidewalks and parking lots), which have a lower absorption rate for rainfall than that of vacant natural lands. However, future development would be required to construct storm drain infrastructure as necessitated in the City's MDPs, and on-site drainage facilities to ensure adequate water quality/detention basins to capture and convey storm water run-off consistent with or less than existing patterns. Individual WQMPs would include project-specific BMPs aimed at minimizing erosion and removing sedimentation from surface runoff. Future development would adhere to Municipal Code Chapters 9.17.110 and 8.10.050 requiring erosion control landscape plans, and erosion and sediment control in construction activity, respectively. Specifically, erosion control measures would ensure that surface water runoff flows leaving future development sites would not carry substantial amounts of sediment. Moreover, the GPU includes goals and policies intended to minimize water pollution through storm water pollution protection. Therefore, adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not result in a substantial erosion or siltation on- or off-site, and impacts would be less than significant.

b. Increase Surface Runoff

The construction of new development and redevelopment throughout the Planning Area could result in a change of drainage patterns or increase velocity of run-off which could lead of off-site flooding. Pursuant to the SAR WQMP, some future development may be required to include BMPs to reduce flow velocity of storm water runoff. Such BMPs could include on-site drainage swales, bioretention features, use of permeable pavers in parking areas and streets, or infiltration basins which also serve as a means for pollutant removal. Additionally, applicable Priority Development Projects would be required to include LID BMPS to treat potentially polluted runoff prior to entering the public storm drain system. Project-specific studies would be required to ensure that volume-based treatment LID BMPs are properly sized to infiltrate, filter, or treat the remaining portion of the runoff volume that was not retained or treated by other BMPs. Future development would also be required to adhere to Municipal Code Chapter 9.14.110, which requires flood control measures to be included in development plans. Therefore, adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, and impacts would be less than significant.

c. Exceed Capacity of Stormwater System

Future development could result in increased volumes of storm water runoff affecting the existing storm water drainage system. As discussed above, future development would be required to ensure surface water runoff rates and volumes closely resemble those that occur under existing conditions. Additionally, the City's MDPs identifies facility upgrades that could apply future development. While some infrastructure improvements are included in the City's CIP, some could be carried by developers to ensure that new runoff volumes, added

to existing conditions, would not exceed the capacity of the City's system. As described in Section 4.10.5.1 above, future development would be required to comply with future SWPPPs and the project-specific WQMP, which would identify BMPs to be incorporated into development plans to ensure that near-term construction activities and long-term post-development activities would not result in substantial amounts of polluted runoff. Therefore, adherence to regional and local plans and regulations would ensure that future development would not create or contribute substantial additional sources of polluted runoff that would exceed the capacity of existing or planned stormwater drainage systems, and impacts would be less than significant.

d. Flood Flows

Future development could increase volumes of stormwater runoff resulting in the impediment or redirection of flood flows. As described in Sections 4.10.5.1 and 5.10.5.3(a-c) above, future development would be required to adhere to regional and local plans, programs and regulations relating to storm water runoff and volume flow. All future development would include BMPs to manage polluted runoff and minimize flow volume and velocity. Therefore, adherence to Municipal Code requirements and applicable GPU goals and policies would ensure that future development would not substantially impede or redirect flood flows, and impacts would be less than significant.

4.10.5.4 Topic 4: Flood hazard, Tsunami, or Seiche

In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The Pacific Ocean is located more than 40 miles from the city. Therefore, there is no potential for tsunamis to impact the Planning Area. As shown in Figure 4-10.3, a portion of the Planning Area is located within a 500-year floodplain, and a small portion within a 100-year floodplain. Specifically, the Highway Office/Commercial Concept Area, both Residential Density Change Concept Areas along Moreno Beach Drive, and a small portion of the Downtown Center within areas designated as 500-year and 100-year floodplains. Future development within these areas, as well as the rest of the Planning Area would be required to comply with Municipal Code Chapter 8.12, Floodplain Ordinance, which requires flood safe measures be included in development plans. Specifically, future development may require elevated building pads, and/or other compliance measures as specified by FEMA. For example, future development within the 100-year floodplain would be required to secure a Conditional Letter of Map Revision and Permanent Letter of Map Revision from FEMA to demonstrate that proposed structures would be located outside of a 100-year flood hazard area. Moreover, future development would be required to adhere to the GPU Safety Element goal to protect life and property from natural and manmade hazards, as well as policies requiring flood protection. Therefore, adherence to FEMA processes and Municipal Code requirements for flood safe measures, and GPU policies would ensure that future development would not result in risks associated with flooding and would be less than significant.

Portions of the Planning Area are subject to inundation from two dams: Pigeon Pass Dam (Poorman's Reservoir) and Perris Dam. As described in Section 4.10.1.3 above, risk associated with flooding due to dam failure at Pigeon Pass Dam (Poorman's Reservoir) is limited to the period during and immediately after major storms. The reservoir does not retain water throughout the year. As described above, future development surrounding Pigeon Pass Dam (Poorman's Reservoir) would be required to comply with Municipal Code Chapter 8.12, Floodplain Ordinance, which requires flood safe measures be included in development plans. Furthermore, future development would be required to adhere to the GPU Safety Element goal to protect life and property from natural and manmade hazards, as well as policies requiring flood protection. Perris Dam was identified as a high priority state-owned dam due to its proximity to nearby faults and large downstream communities. In 2018, a major retrofit to Perris Dam was completed as a statewide effort to reduce seismic risks to dams (DWR 2019). Upgrades to the dam include a reinforced foundation, construction on the Outlet Tower Bridge (planned to be complete in 2020), and improvements to the Emergency Release Facility that would direct the flow of water in an emergency requiring the dewatering of the reservoir (planned for completion 2023). Implementation of these remediation measures at Perris Dam would ensure that impacts related to flooding due to dam failure would be less than significant. Lake Perris, located approximately one mile south of the Planning Area, is the only large water body that could cause a seiche. The remediation measures for Perris Dam described above would also serve to protect against a seiche. Mystic Lake is a season water body that is dry for substantial periods of time located in the southeastern portion of the SOI. Land surrounding Mystic Lake is currently undeveloped and is designated as Floodplain in the 2021 GPU. Therefore, impacts associated with flooding due to dam failure and seiche would be less than significant.

4.10.5.5 Topic 5: Water Quality Plans

Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As described in Section 4.10.5.1 above, future development would be required to comply with the SAR Basin Water Quality Control Program, which includes the requirement to complete and submit of a SWPPP for construction-related activities. Future development would also be required to implement a WQMP to demonstrate compliance with the City's MS4 permit and to minimize the release of potential waterborne pollutants. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan, and impacts would be less than significant.

As described in Section 4.10.1.4 above, domestic water supplies throughout the Planning Area are not reliant on groundwater as a primary source. Additionally, the framework of the SGMA ensures that groundwater basins within the state are managed to ensure long-term water supply reliability. Furthermore, the OSRC Element includes the goals to preserve and protect natural resources, and policies are identified to ensure groundwater protection and improve groundwater infiltration measures. Therefore, the project would not conflict with or obstruct implementation of a groundwater management plan, and impacts would be less than significant.

4.10.6 Cumulative Analysis

Future development could increase the total amount of pollutants entering downstream rivers and water bodies, and could increase rates and volumes of storm water runoff due to new impermeable surfaces. However, future development would be required to adhere to all relevant regional and local plans, Municipal Code regulations, and proposed policies contained in the updated elements of the GPU. Specifically, future development would be required to submit WQMPs to identify BMPs directed at pollution reduction and the maintenance of on-site drainage patterns. Additionally, the project's incremental contribution to the drainage system and water quality impacts would not be cumulatively considerable due to compliance with the requirements of the joint NPDES permit from the RWQCB, which includes specific requirements to substantially reduce the potential for impacts. The project would achieve flood control and infrastructure maintenance needs through implementation of the City's MDPs and/or CIP. Moreover, the project would not result in flood hazards related to tsunami or seiche. Therefore, the project would not contribute to cumulative impact related to hydrology and water quality.

4.10.7 Significance of Impacts before Mitigation

With respect to all issues discussed under Section 4.10.5, future development would be required to comply with GPU OSCR Element policies supporting the protection of water quality, thereby minimizing potential adverse impacts. Additionally, future development would also be required to comply with regional and local plans, the City's Municipal Code requiring project-specific BMPs to reduce polluted runoff, maintain drainage patterns, and minimize runoff flows and volumes. Consistent with General Plan OSCR Element policies, future development would submit a SWPPP, if necessary, and adhere to Municipal Code requirements for WQMPs. Therefore, impacts related to hydrology and water quality would be less than significant.

4.10.8 Mitigation

Impacts associated with hydrology and water quality would be less than significant. No mitigation is required.

4.10.9 Significance of Impacts after Mitigation

Impacts associated with hydrology and water quality would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Land Use and Planning Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.11 Land Use/Planning

This section analyzes potentially significant impacts related to land use and planning that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and the sphere of influence (SOI), which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refer to those areas where the GPU proposes land use changes as shown on Figure 3-1.

4.11.1 Existing Conditions

4.11.1.1 Existing Land Uses

The total area of land in the Planning Area is approximately 42,900 acres or 67 square miles, of which 33,000 acres are within the city limit. Land outside of the city limit but within the SOI is largely undeveloped natural open space or in use for agricultural purposes. A summary of existing land uses based on data from the city and Riverside County is provided in Chapter 2.0, Table 2-1. Existing land uses shown on Figure 4.11-1.

Residential land uses account for nearly 32 percent of land (10,479 acres) within the city limit, concentrated primarily in the western and central portions of the city where most development has historically occurred. Single-family housing accounts for the bulk of all residential uses within the city, while multi-family housing accounts for less than 3 percent of citywide land use. Established single-family neighborhoods include Hidden Springs, Sunnymead Ranch, and Moreno Valley Ranch. Single-family attached and multi-family housing is generally present in all residential neighborhoods, with the highest concentrations just south of the commercial stretch of Sunnymead Boulevard between Heacock Street and Perris Boulevard.

Commercial land uses, including retail, office, and lodging, account for 2.3 percent of the land within the Planning Area. Within the city limit, commercial land uses account for 3 percent of citywide land use (994 acres). Commercial uses are primarily concentrated in shopping centers such as the Moreno Valley Mall, TownGate, Moreno Valley Plaza, The District, Stoneridge Towne Center, Moreno Valley Auto Mall, Moreno Beach Plaza, Alessandro Plaza, and Sunnymead Towne Center. These areas include a mix of restaurants, retail stores, hotels, and personal services depending on the location. The Moreno Valley Mall and TownGate Highlands, Crossing, and Promenade at the western end of the city have the largest concentrations of commercial development.

Map Source: Dyett & Bhatia

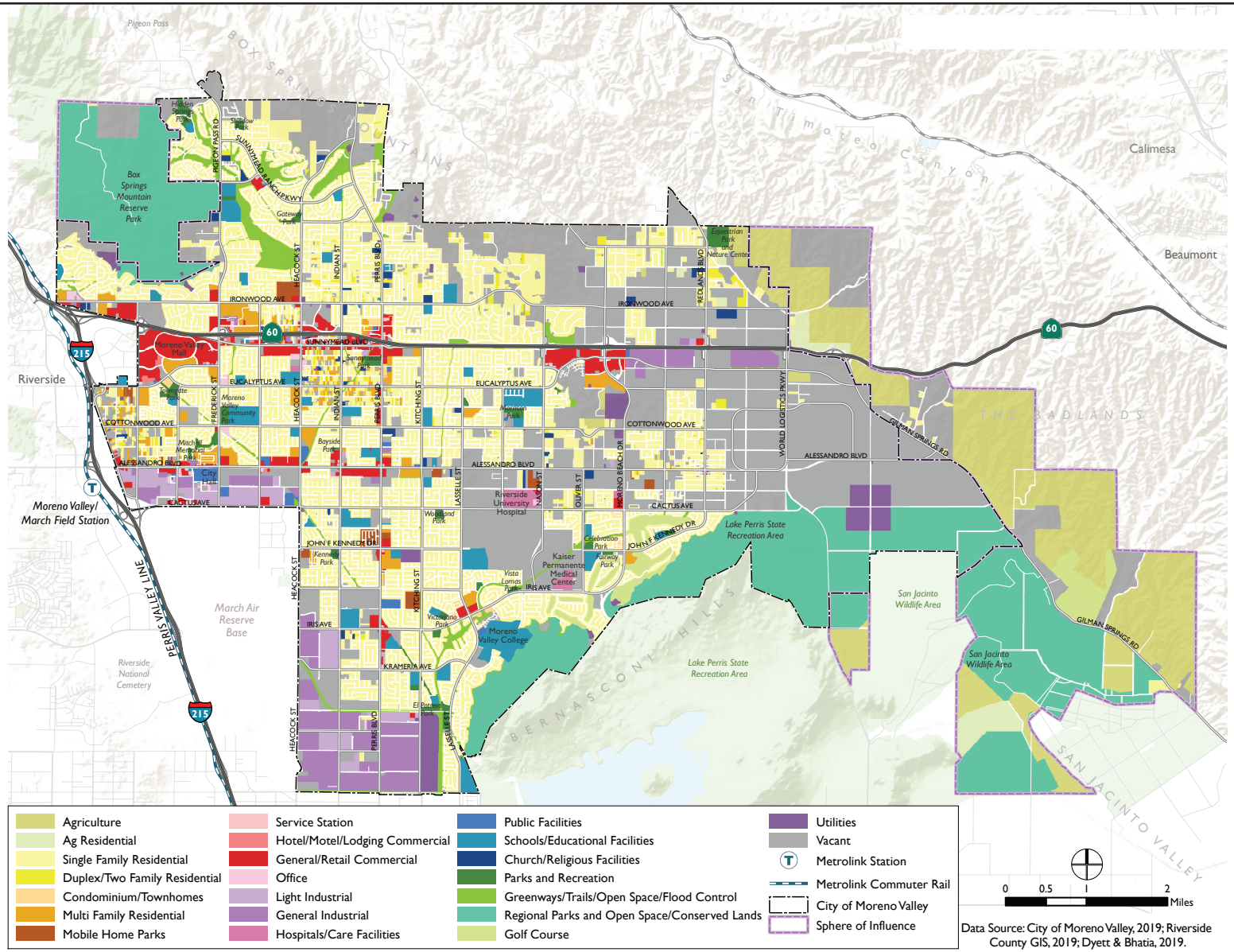


FIGURE 4.11-1
Existing Land Use

RECON

M:\JOBS5\9504\env\graphics\fig4.11-1.ai 03/23/21 fmm

Industrial land uses, including light industrial and general industrial, represent 3.7 percent (1,584 acres) of the Planning Area. Within the city limit, industrial land uses account for 4.8 percent of citywide land use (1,584 acres). Industrial land uses in Moreno Valley are clustered around three main areas:

- Between Alessandro Boulevard and Cactus Avenue, and Heacock Street and Elsworth Street (including the area formerly known as Centerpointe Business Park), as well as a number of larger warehouses extending toward the I-215 Frontage Road,
- Moreno Valley Industrial Area, and
- State Route 60 (SR-60) Business Park Area.

These existing industrial land uses are sited near the periphery of the city, proximate to freeway network access.

Public and Community Facilities land uses occupy 1,756 acres or approximately 4.1 percent of the Planning Area. Within the city limits, public and community facilities land uses account for 5.3 percent of citywide land use (1,752 acres). This includes a variety of public or semi-public lands, such as hospitals/care facilities, churches/religious facilities, schools/educational facilities, branches of government, and utilities. Schools/education facilities comprise the majority of this existing land use category with 866 acres of land, followed by utilities with 505 acres of land. The varied land uses of this category are dispersed throughout the city with more locations in the western and southern portions of the city.

Parks and Recreation land uses, including parks and recreation spaces, greenways and open space, conserved lands, and golf courses, comprise 8,317 acres or approximately 19.4 percent of the Planning Area. In the city, parks and recreation land uses account for about 12.54 percent of citywide land (4,100 acres), mostly conserved lands and greenways/open space. Moreno Valley has many parks such as Gateway Park, Sunnymead Park, Woodland Park, Kennedy Park, the Equestrian Park and Nature Center, and the Hound Town Dog Park. These parks and other recreation areas are dispersed throughout the city. Agriculture land accounts for approximately 3,969 acres or 9.2 percent of Planning Area. Almost all of the agriculture lands in the Planning Area are located to the east within the SOI, although there is very limited active agricultural production within the SOI. Agriculture accounts for less than 1 percent of land within the City, located primarily in the northern portion of the city above SR-60.

Vacant land accounts for 27 percent of the land within the city (8,902 acres). Vacant land is primarily located in the eastern part of the city, both north and south of SR-60; however, the following major approved/in-progress that are either partially constructed or as-yet unconstructed:

- Aquabella is a gated active-adult community approved for 2,900 dwelling units on 685 acres between Brodiaea Avenue and Iris Avenue, part of the Rancho Belago neighborhood. The Aquabella Specific Plan was adopted in 2005.

- The World Logistics Center (WLC) is a master-planned development encompassing up to 40.6 million square feet of building area specifically designed to support large-scale logistics operations. The WLC Specific Plan covers 2,610 acres (7.9 percent of citywide land) in the eastern portion of the city, south of SR-60.

- The partially constructed Moreno Valley Logistics Center is located in the southern portion of the city, south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street, and west of Indian Street. The Moreno Valley Logistics Center includes four buildings providing 1.7 million total square feet of building space on approximately 89 acres of land.

- The partially constructed Brodiaea Commerce Center is located in the central-western portion of the city north of Brodiaea Avenue, west of Heacock Street, and south of Alessandro Boulevard. The Brodiaea Commerce Center includes one industrial warehouse with approximately 262,000 square feet of building space on 12 acres of land.

4.11.1.2 Neighborhood Character

a. Topography and Views

Moreno Valley is located in Riverside County in an east-west oriented valley bordered by the Box Spring Mountain Range to the north, the Badlands Mountain Range, also known as San Timoteo Badlands, to the northeast, and the Bernasconi Hills with Lake Perris to the southeast. Moreno Valley connects to the San Jacinto Valley in the southeast between the Badlands Mountain Range and Bernasconi Hills. To the west, lower hill ranges including Sycamore Canyon are located between the cities of Riverside and Perris, and the Saddleback formation, which is part of the Santa Ana Mountain Range, lies further in the west beyond Lake Mathews. These topographic features provide numerous scenic vistas within the Planning Area.

Within the city, several hills and rock formations present natural landmarks, particularly on the eastern part of the city between Moreno Beach Drive and Nason Street, just south of the SR-60, at Alessandro Boulevard and Lasselle Street, and along the northern edge of the city near Ironwood Avenue. The terrain gradually slopes from north to south, starting from the northern mountain range to the southern border of the city with an elevation change of approximately 300 feet between SR-60 and Iris Avenue. The nearest mountain ranges, as well as the more distant San Bernardino Mountains, Santa Ana Mountains, and San Gabriel Mountains, are visible from many locations in the Planning Area, particularly higher elevations in the city. A notable landmark is the 3,083-foot-tall Box Springs Mountain on the northeast side of Moreno Valley, which features a prominent “M” marker at its peak facing Moreno Valley. The “M” is lit at night during holidays and special events.

b. Urban Structure

Moreno Valley's structure is based on the north-south and east-west oriented one-square-mile gridiron plan laid out at the end of the nineteenth century as part of the settlement expansion to the American West. Much of this layout remains with some modifications, resulting in "superblocks" defined by major arterial roads. Most of Moreno Valley is organized in half-mile squares that are sometimes divided in half or four quarters by continuous roads, while some half-mile squares contain an irregular street grid within. One-mile squares or even larger blocks exist on the east side of the city.

A finer-grained urban fabric with a smaller street grid exists in the Sunnymead and Edgemont area, where Moreno Valley's development first started. The grid structure is broken up to follow the natural topography at the Lake Perris area in the southeast and along the northern hills and mountains. Although not located within the city limits, March Air Reserve Base (MARB) forms the southwestern edge of the city and the street grid ends at the Base's northern and eastern boundary. SR-60 traverses Moreno Valley in an east-west direction with most of the city located on the south side of the highway.

The city has a decentralized structure with commercial, retail, public, and institutional uses distributed across the Planning Area, typically located along major arterials and at intersections of major arterials. Large-scale retail centers are concentrated along SR-60, with smaller neighborhood retail centers interspersed throughout the city fabric. Residential uses are spread out within the grid pattern, mainly consisting of single-family home subdivisions, some older small parcel residential areas, as well as a number of multi-family complexes. Light Industrial areas are located along the southern boundaries near the MARB and south of SR-60 on the east side of the city and are home to a variety of industries including large-scale distribution centers.

Large areas of vacant land are located on the city's east side beyond Lasselle Street. Here, some areas still remain rural in character with stand-alone buildings or compounds accessed by narrow roads, which in some cases are unpaved roads. Open land, a limited amount of which is used for agriculture, is lining Gilman Springs Road at the eastern edge of the city.

Major open spaces are the Lake Perris Recreation Area at the southern edge of the city along the Bernasconi Hills and the Box Spring Mountain Reserve Park in the northwest. A unique feature is Juan Bautista de Anza Multi-Use Trail, formerly named Aqueduct Trail, which runs diagonally through the western part of the city along the underground California Aqueduct Pipeline from the Moreno Valley Mall to Lake Perris State Park.

c. Urban Form

The city was formed in 1984, uniting the unincorporated communities of Sunnymead, Moreno, and Edgemont, during a time of significant growth. The regular street grid and amount of available land resulted in auto-oriented low-density development. Large single-family residential subdivisions were built in or within a portion of the half-mile square blocks or along the hillsides. Interspersed auto-oriented neighborhood retail centers serve these communities and are located along major four- or six-lane arterials. In the business and

industrial areas, very large distribution centers and warehouses with building footprints between 1 and 1.5 million square feet are common. Refer to Figure 4.11-2 for the distribution of retail centers and business parks in the city.

Existing structures within the Planning Area consist primarily of auto-oriented low-density development. With the exception of medical facility buildings, most buildings in Moreno Valley are one or two stories high, with some multi-family buildings or hotels going up to four stories. Large distributions centers have building heights of up to 50 to 60 feet and building lengths between 600 and 900 feet. The most significant source of light and glare occurs from artificial lights from buildings, including MARB in the southwestern portion of the Planning Area.

Block sizes are generally big and based on the half-mile grid system. Long distances between pedestrian crossings along arterials contribute to limited walkability but a finer grained street network of secondary streets, where interconnected, generates smaller block sizes within the half-mile grid system.

d. Major Corridors

Alessandro Boulevard is the main east-west corridor that runs across the entire city and stretches 8.3 miles between Interstate 215 (I-215) and Theodore Street. Several destinations and activity centers are located in proximity to Alessandro Boulevard: City Hall and business park uses on the west side, the public library at Kitching Street, several commercial shopping centers, and the Riverside University Health Systems Facility at Nason Street. Commercial and retail, single- and multi-family residential, public, churches, schools, industrial, office, and vacant land occupy this corridor. Building heights are low, with most buildings being one or two stories high. The Ridgeview multifamily residential development at Kitching Street includes 3-story buildings.

Nason Street is one of the main north-south corridors on the city's east side that connects to SR-60 runs for 3.6 miles between Ironwood Avenue to the north and Iris Avenue in the south. The extension between Cactus Avenue and Iris Avenue has been constructed in recent years. Nason Street connects to two larger destinations: the medical cluster, consisting of the Kaiser Permanente Medical Center at Iris Avenue and the Riverside University Health System Medical Center at Cactus Avenue, and a retail center formed by the Stoneridge Towne Center and Moreno Beach Shopping Center near SR-60. New single-family residential developments are under construction south of the Stoneridge Towne Center. Nason Street includes a mix of uses and development patterns, including single-family residential developments and stand-alone single-family homes, a big box shopping center. a mobile home park, a school complex on a combined site that includes a high school, middle school, and elementary school, three churches, and the two medical centers with associated medical offices. Except for the Kaiser Permanente Medical Center and the Riverside University Health System Medical Center, which include up to 6-story and 4-story high buildings respectively, heights are low, with most buildings being one or two stories high. Due to the block sizes and frontage conditions, Nason Street remains an auto-oriented corridor. Two bus lines serve portions of Nason Street between Eucalyptus and Cactus Avenue.

Map Source: Dyett & Bhatia

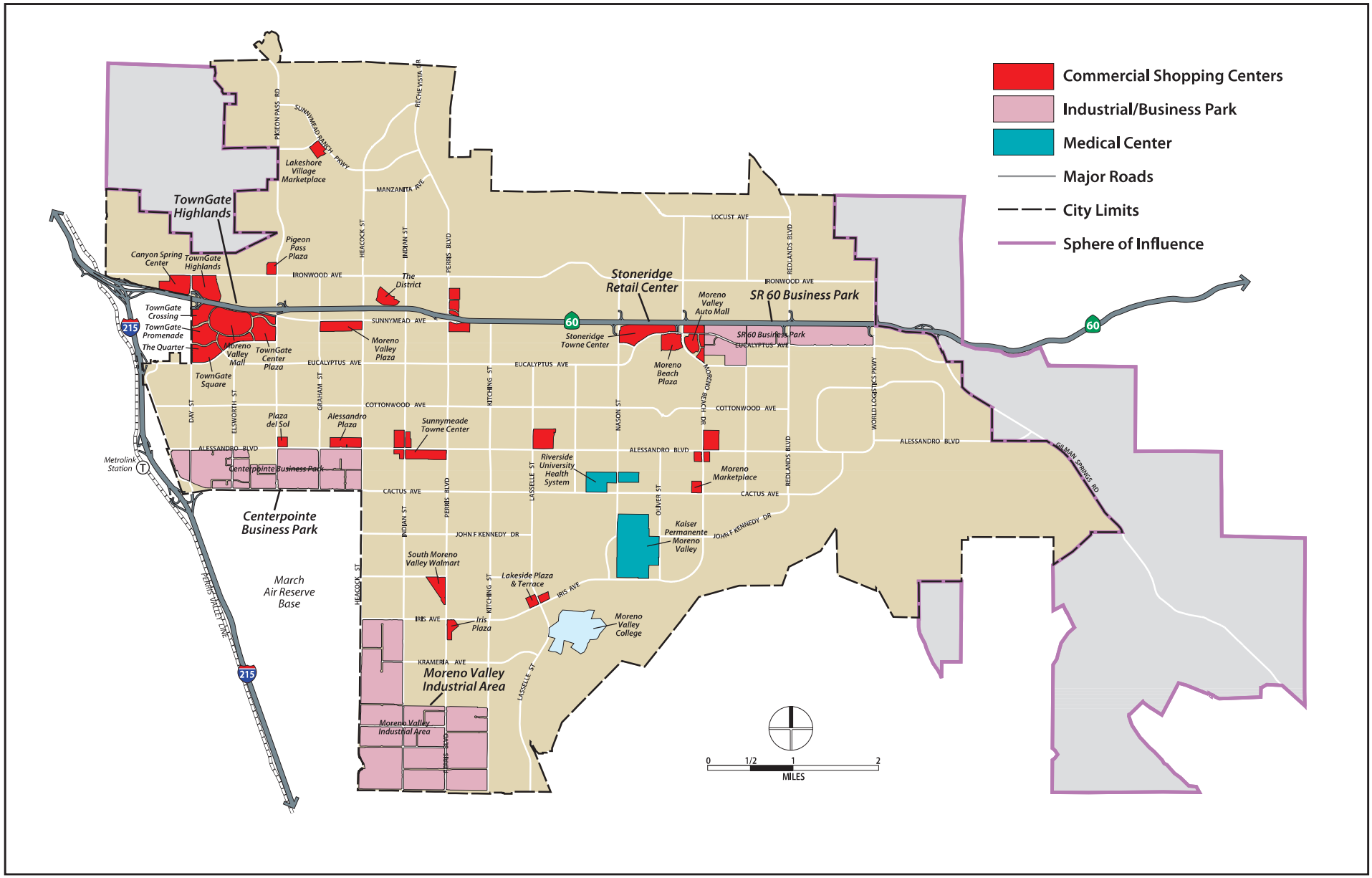


FIGURE 4.11-2
Distribution of Retail Centers and Business Parks

RECON

M:\JOBS5\9504\env\graphics\fig4.11-2.ai 03/23/21 fmm

Frederick Street, located in the western part of the city, runs from SR-60 south for 2.1 miles to Cactus Avenue. It provides direct access to SR-60 and connects the Towngate retail district via Centerpointe Drive and Towngate Boulevard, Sunnymead Boulevard, Moreno Valley City Hall, and the Moreno Valley Conference Center at Alessandro Boulevard. Frederick is a four-lane road with a wide center median that accommodates both a landscaped median and left-turn lane or in some locations, two left-turn lanes in the stretch between Sunnymead Boulevard and Eucalyptus Avenue. Frederick Street is lined with a mix of residential developments including Towngate Plaza, Moreno Valley Community Park, a small golf course, offices, small neighborhood retail centers, gas stations, City Hall, and the Moreno Valley Conference and Recreation Center, as well as distribution and storage facilities at the south end of the street. Building heights vary between one and two stories for single-family residential buildings, one to three stories for apartment buildings, one to two stories for office buildings, and one story for retail buildings. City Hall is a 2-story building, and distribution and storage buildings are up to 50 feet high.

e. Neighborhoods

Before the city experienced significant growth in the 1980s and became an incorporated city in 1984, three incorporated communities existed within current city limits: Edgemont, Sunnymead, and Moreno. Today, some of the original fabric is still recognizable, particularly in the area around Sunnymead Boulevard, which is characterized by smaller block and parcel sizes. Most of Moreno Valley's west side is developed with no clearly defined separation between Edgemont and Sunnymead.

The Southwest Area includes the west side of the city that includes the older Edgemont area, near the junction of SR-60 and I-215. Development along Alessandro Boulevard includes a mix of single-family residential areas, auto-oriented commercial centers, City Hall, other public facilities, and large distribution centers south of Alessandro Boulevard. Large-scale regional retail centers are located on the north side of Edgemont on both sides of State Route 60. Several shopping centers form the Towngate area: Canyon Spring Plaza, Towngate Highlands, Moreno Valley Mall, Towngate Crossing, Towngate Promenade, The Quarter, Towngate Square and Towngate Center. This area also includes several hotels up to four stories high. In the southern part of the Southwest Area are a business park area, civic uses, and some commercial uses including large distribution centers.

The Central Area is located east of Heacock Street and north of Alessandro Boulevard. It is situated along Sunnymead Boulevard and includes the older Sunnymead area. A finer-grained street grid creates smaller blocks in a quadrant south of Sunnymead Boulevard between Heacock Street, Perris Boulevard, and Dracaea Avenue. Similar to the older part of Edgemont, this area is characterized by stand-alone one-or two-story residential buildings. Commercial activity focuses on Sunnymead Boulevard and Alessandro Boulevard, with some neighborhood shopping centers also located at Perris Boulevard. A gateway sign to the east of the intersection with Frederick Street marks the entrance to the Sunnymead commercial area. The area has a large park, Sunnymead Park, at the corner of Fir Avenue and Perris Boulevard. Along Alessandro Boulevard, neighborhood shopping centers are auto-oriented with surface parking fronting the roadway. "The District" is a larger retail and business park

center on a 20-acre site with home improvement stores and smaller services that has recently been redeveloped. Generally, building heights in the Central Area are between one and two stories. Some multi-family buildings are three stories.

Southeast Area is generally the southeast portion of Moreno Valley. It features new schools, medical centers, stores, shopping centers and single-family and multi-family homes. It is located from Lasselle Road to the west, east to Gilman Springs Road, and from the southern City boundary with the Lake Perris State Recreation Area north to the northern city boundary, north of Ironwood Avenue and Locust Avenue. The majority of development has occurred in the western half of this area, with the eastern half remaining undeveloped. One exception is the Sketchers Factory Outlet and Distribution Warehouse on the south side of SR-60 in the eastern portion of the community. The Moreno Beach Plaza is also located on the south side of SR-60, to the west. The Riverside County Regional Medical Center and Riverside University Health System Medical Center are located at the northeast corner of Cactus Avenue and Nason Street.

Valley View High School, Mountain View Middle School, and Moreno Elementary School, and Riverside County Fire Station 99 are all located between Nason Street, Morrison Street, Cottonwood Avenue, and Eucalyptus Avenue, in the western portion of the area. Kaiser Permanente Moreno Valley, Moreno Valley College, Ridgecrest Elementary School, La Jolla Elementary School, Landmark Middle School, and Vista Del Lago High School are all located in the southwestern portion.

The Northwest Area is located at the foot of the Box Springs Mountain range, adjacent to Box Springs Mountain Reserve Park, which features open space, hiking trails and the Moreno Valley M. The Northwest Area community is entirely north of SR-60, with Ironwood Avenue and Manzanita Avenue forming the southern boundary, connected by the north/south running Heacock Street. The Northeast Area community is predominantly residential and features five elementary schools; Seneca Elementary School, Box Springs Elementary School, Honey Hollow Elementary School, Hidden Springs Elementary School, and Sugar Hill Elementary School. Canyon Springs High School is located on the east side of Pigeon Pass Road. The Northwest Area community is also served by Vista Heights Middle School. Other prominent land uses are Poorman's Reservoir and Sunnymead Ranch Lake Club. Local parks and neighborhood commercial land uses also serve the community.

The South Area is bounded by Alessandro Boulevard, Kitching Street, Heacock Street, and the industrial area to the south. The South Area community is located just east of Moreno Valley City Hall and March Air Reserve Base (MARB). This community features a mix of residential, commercial, and industrial land uses. Schools that serve this community are Chaparral Hills Elementary School, March Middle School, and Badger Springs Middle School. Several shopping centers are located on the south side of Alessandro Boulevard and at major intersections. There are also several distribution centers located in the southern portion of the community. John F. Kennedy Veteran's Memorial Park provides sports fields, tennis courts, and other recreational amenities. There are several large undeveloped parcels within the South Area community.

The South Industrial Area is located along the southern portion on both sides of Perris Boulevard. Land uses in the South Industrial Area are predominantly warehouse and distribution centers. The eastern portion of the South Industrial Area contains the Eastern Municipal Water District's Moreno Valley Regional Water Reclamation Facility, which on average treats 10.6 million gallons of wastewater per day. Large undeveloped lots remain within the South Industrial Area.

4.11.1.3 Specific Plans

A specific plan is a comprehensive planning and zoning document that implements the General Plan by providing a special set of development standards applied to a particular geographic area. Key specific plans are described below.

a. The Moreno Valley Auto Mall Specific Plan (SP 209, SP 209 PH3)

The Moreno Valley Auto Mall Specific Plan was prepared by a developer and adopted by the City in 1988, and has been amended. The planning area is approximately 140 acres of land located south of SR-60 at the Moreno Beach Drive off-ramp. The specific plan is intended to provide for the development of automobile sales uses, auto-related uses, and commercial uses. The General Plan designates the area as Commercial (C) on the General Plan Land Use Map.

The specific plan has resulted in the successful development of the Moreno Valley Auto Mall, the Inland Empire's largest dealership network. A KIA automobile dealer was recently approved for one of the remaining sites within the Auto Mall. Adjacent to the west of the Auto Mall, on the opposite side of Moreno Beach Drive, are portions of Moreno Beach Plaza (Walmart Supercenter location), which is located within a subsequent phase (SP 209 PH3) of the original specific plan. The Stoneridge Towne Center is located to the immediate west of Moreno Beach Plaza.

b. Moreno Valley Industrial Area Specific Plan (SP 208)

The Moreno Valley Industrial Area Specific Plan was prepared by the City and adopted in 1989, and has been subsequently amended. The planning area is approximately 1,380 acres in southwestern Moreno Valley adjacent to the March Air Reserve Base with I-215 located to the west. The Moreno Valley Industrial Area is envisioned as a major site for the development of industrial and related land uses, economic development, and expansion of its employment base. To date, this specific plan has resulted in large industrial buildings housing well-known companies such as Amazon, O'Reilly Auto Parts, Walgreens, Proctor and Gamble, and Ross. The Industrial Area Specific Plan Area is nearly built-out. Two development projects, the Moreno Valley Logistics Center (87 acres of vacant land) and the Indian Street Commerce Center (20 acres of already developed land), are in-progress.

c. The Village Specific Plan (SP 204)

The Village Specific Plan was prepared by the City and adopted in 1994 to cover a planning area of approximately 580 acres bounded by SR-60 to the north, Dracaea Avenue to the south, Frederick Street to the west, and Kitching Street to the east. The plan was developed as a

response to revitalize Sunnymead Boulevard and surrounding areas that were guided by the City's first specific plan in 1987 (Sunnymead Boulevard Plan). The overall goal of the Sunnymead Boulevard Plan and the Village Specific Plan is to promote and improve economic viability along the boulevard which acts as a freeway-oriented commercial focal point and provides a wide variety of office, retail, and service-related uses and employment opportunities.

d. Sunnymead Ranch (SP 168)

This specific plan was prepared by a developer and covers an area of approximately 880 acres known as Sunnymead Ranch in the northwestern portion of the city, with Pigeon Pass Road to the west and Perris Boulevard to the east. The vision was a high-quality planned neighborhood with residential and general/retail commercial uses. The majority of the planning area is built-out with single-family residences. The Lakeshore Village Marketplace, an 80,000-square-foot shopping center that was formerly anchored by a Ralph's grocery store until 2013, sits on a 14-acre parcel within this planning area.

e. Moreno Valley Ranch Specific Plan (SP 193)

This specific plan was prepared by a developer and adopted in 1986, and has been subsequently amended. The planning area is approximately 3,640 acres and is nearly built-out with Ranch single-family residences located in the southern portion of the city near the Lake Perris State Recreation Area. The plan has design guidelines for the development of the family-oriented community. The Moreno Valley campus of Riverside Community College is located within this planning area and the Kaiser Permanente Medical Center and some commercial areas are immediately adjacent. There is currently a multi-family project approved and under construction within the planning area and two that are approved but not yet constructed.

f. Hidden Springs Specific Plan (SP 195)

This specific plan was prepared by a developer and adopted in 1986 and includes approximately 340 acres of built-out single-family residential neighborhood development in the northwestern portion of the city adjacent with the Box Springs Mountain Reserve Park to the west and Pigeon Pass Road to the east.

g. TownGate Specific Plan (SP 200)

This specific plan was prepared by a developer and adopted in 1986. The planning area is approximately 500 acres located on the western portion of the city bounded by SR-60 to the north, Cottonwood Avenue to the south, and Frederick Street to the east. The planning area includes the Moreno Valley Mall, the city's major shopping center. More recent commercial developments in this planning area include TownGate Crossing, TownGate Promenade, TownGate Square, and TownGate Center/Plaza. New commercial/retail developments continue to this day. The Quarter project, which is a commercial development including two

hotels, is adjacent to the Specific Plan. The residential portions of the Specific Plan include single-family and multi-family are built-out.

h. Festival Specific Plan (SP 205)

This specific plan was prepared by a developer and adopted by the City in 1987 for mixed-use development with residential, retail/commercial, and office/commercial uses. The planning area is approximately 70 acres and is located on the north side of SR-60, east of Heacock Street, and south of Ironwood Avenue. The planning area allowed for general/retail commercial, including the existing shopping center. The plan was amended in early 2018 to allow a wider range of uses including Business Park/Light Industrial in some planning areas. The commercial center is now known as the District and redevelopment is underway with completion of a Floor and Décor which recently opened replacing a former big box tenant; the building had been vacant for nearly 25 years. Business Park uses (approximately 400,000 square feet on 19 acres) are under construction. A hotel is also approved within the southeastern portion of the Specific Plan just north of Route 60.

i. Eastgate Ranch Specific Plan (SP 207)

This specific plan was prepared by a developer and adopted by the city in 1991, and then amended in 2004. It includes approximately 150 acres of single-family residential neighborhood development near the Kaiser Permanente Medical Center bounded by Oliver Street to the west, Moreno Beach Drive to the east, Cactus Avenue to the north, and John F. Kennedy Drive to the south. La Jolla Elementary School and Celebration Park are located within this planning area. Landmark Middle School and Fairway Park are on the opposite side of John F. Kennedy Drive at the southern border of the Eastgate Ranch. This specific plan is completely built-out.

j. Aquabella Specific Plan (SP 218)

This specific plan was prepared by a developer and was adopted by the City in 2005 for the development of a gated active-adult community containing 2,900 dwelling units on approximately 730 acres near the Kaiser Permanente Medical Center between Brodiaea Avenue and Iris Avenue,. Site grading began two years following specific plan adoption but the project was put on hold due to economic recession and slowdown of the housing market.

k. World Logistics Center Specific Plan

The World Logistics Center Specific Plan was prepared by a developer and was adopted by the City in 2015. The WLC is a master-planned development encompassing up to 40.6 million square feet of building area specifically designed to support large-scale logistics operations. The WLC Specific Plan covers 2,610 acres (7.9 percent of citywide land) in the eastern portion of the city, bounded by SR-60 to the north, Cactus Avenue to the south, Redlands Boulevard to the west, and Gilman Springs Road to the east. The WLC Specific Plan implements all applicable elements of the General Plan and includes detailed information about the area's

infrastructure improvements such as roads, water, sewer, utilities, and flood control facilities.

4.11.2 Applicable Regulatory Requirements

This section describes the various planning documents and local planning initiatives that affect the Planning Area.

4.11.2.1 State and Regional

a. Riverside County General Plan

Within the SOI in the Planning Area lies 9,919 acres of land (23 percent of total Planning Area) that is currently unincorporated and under the direction of the Riverside County General Plan. The City of Moreno Valley General Plan has authority over territory within the city limit, while the Riverside County General Plan has jurisdiction over unincorporated territory within the County. Lands within Moreno Valley's sphere of influence can be given land use designations by both the City and the County, but the City's designation applies only if the land is annexed into the city, otherwise, the County's designation/plans prevail. The majority of the unincorporated Planning Area is designated by Riverside County as Open Space Rural, Conservation Habitat, and Conservation. Small pockets of Commercial Retail and Light Industrial designations are located adjacent Gilman Springs Road at the city's eastern limits, adjacent to the approved World Logistics Center.

b. March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

In November 2014, the Riverside County Airport Land Use Commission adopted the Airport Land Use Compatibility Plan (ALUCP) for the March Air Reserve Base/Inland Port Airport (MARB/IPA) located adjacent to the southwestern boundary of the city. The ALUCP is primarily based upon the U.S. Air Force's *Air Installation Compatibility Use Zones Study* for the March Air Reserve Base (AICUZ). The ALUCP incorporates noise and safety protection measures equivalent to or greater than recommended in the AICUZ. While no modifications to the existing airport runways or approaches are anticipated, the ALUCP studied potential future military and civilian aircraft activity to inform the development of unique Airport Compatibility Zones each with their own land use restrictions in consideration of projected future use by both military and civilian aircraft. The compatibility zones and their associated restrictions plan for noise and overflight factors as well as safety and airspace protection factors.

Within the city limit, there is a special zoning overlay for the AICUZ with the following description: *It is the intent and purpose of this AICUZ overlay district to limit public exposure to aircraft accidents and noise and to encourage future development that is compatible with the continued operation of March Air Force Base.* The ALUCP's Airport Compatibility Zones that occur within the city limit are summarized as follows and depicted in Figure 4.9-2.

Zone A – Clear Zone

- Acreage within city limit: 47.8 acres (approximate)
- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: All non-aeronautical structures; assemblages of people; objects exceeding Federal Aviation Regulations' height limits (Part 77); all storage of hazardous materials; hazards to flight

Zone B1 – Inner Approach/Departure Zone

- Acreage within city limit: 164.1 acres (approximate)
- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, restaurants, places of assembly; buildings with greater than 1 aboveground habitable floor in Accident Prone Zone (APZ) I or greater than 2 floors in APZ II and outside of APZs; hazardous materials manufacture/storage; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight; uses listed in AICUZ as not compatible in APZ I or APZ II

Zone B2 – High Noise Zone

- Acreage within city limit: 210.4 acres (approximate)
- Residential Land Use: No new dwellings allowed
- Prohibited Land Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, hotels/motels, places of assembly; buildings with greater than 3 aboveground habitable floors; noise sensitive outdoor non-residential uses; critical community infrastructure facilities; hazards to flight

Zone C1 – Primary Approach/Departure Zone

- Acreage within city limit: 656.8 acres (approximate)
- Residential Land Use: Less than or equal to 3.0 dwelling units per acre
- Prohibited Land Uses: Children's schools, day care centers, libraries; hospitals, congregate care facilities, places of assembly; noise-sensitive outdoor non-residential uses; hazards to flight

Zone D – Flight Corridor Buffer

- Acreage within city limit: 2,069.1 acres (approximate)
- Residential Land Use: No limit
- Prohibited Land Uses: Hazards to flight

Zone E – Other Airport Environs

- Acreage within city limit: 6,093.5 acres (approximate)
- Residential Land Use: No limit
- Prohibited Land Uses: Hazards to flight

High Terrain Zone

- Acreage within city limit 1,848.2 acres (approximate)
- Residential Land Use: Same as underlying zone
- Prohibited Land Uses: Hazards to flight; other uses restricted in accordance with criteria for underlying zone

Within the city limit, there are approximately 657 acres of land within Zone C1. The current land uses in Zone C1 include general/light industrial, general/retail commercial, office, public facilities, single-family residential, multi-family residential, church/religious facilities, limited and vacant land. Existing residential area in Zone C1 represents approximately 95 acres, detailed below with maximum density limits for dwelling units per acre (du/ac).

- Residential 30 (R30 – 30 du/ac): 17 acres
- Residential 15 (R15 – 15 du/ac): 30.63 acres
- Residential 10 (R10 – 10 du/ac): 38.42 acres
- Residential 5 (R5 – 5 du/ac): 9.03 acres

4.11.2.2 Local Plans and Projects

a. Momentum MoVal (2016)

In 2016, the City adopted Momentum MoVal, the City's first Strategic Plan to guide the community's growth in a three to five year timeframe from 2016 forwards. The City's top priorities are grouped into six categories: Economic Development; Library; Public Safety; Infrastructure; Youth Programs; and Beautification, Community Engagement, and Quality of Life. Through the General Plan Update process, the priorities identified in Momentum MoVal will be incorporated to guide the community's growth, with particular attention to land use, towards year 2040.

Momentum MoVal prioritized the establishment of the city as the worldwide model in logistics development and promoted small business development and entrepreneurship. As such, the quantity, location, and character of general/light industrial and commercial/office land uses will require consideration. Through project outreach, some community members have relayed desires for increased library services—this could potentially translate into plans for increased service/facilities on existing library sites or entirely new sites. The plan identifies that quality of life and community interaction should be enhanced through the creation of a town center that offers "Third Space" gathering opportunities outside of the workplace or home to encourage social exchange in a live, work, and play atmosphere.

b. Alessandro Boulevard Corridor Vision Plan

The Alessandro Boulevard Corridor Vision Plan (2010) focuses on the properties fronting the Alessandro Boulevard corridor between Old Highway 215 to the west and Nason Street to the east, a distance of approximately 5.5 miles. The plan also discusses adjacent properties to the north and south within a half mile of the corridor, specifically their role in and benefit from revitalization of the corridor that has a mix of vacant properties, general/retail commercial, single/multi-family residential, general/light industrial, and public facilities such as the Moreno Valley City Hall. The plan envisions a series of transit-ready nodes served by a planned Bus Rapid Transit (BRT) line extending from Nason Street to the Metrolink Station along I-215. Residential uses of the planning area include primarily existing single-family residences and some multi-family residences that are located generally immediately adjacent to Alessandro Boulevard. Retail and restaurant uses focused at transit-ready nodes are encouraged if higher levels of change are desired. Streetscape improvements focused on active transportation, such as walking and biking, and beautified landscaping are also highlighted by the plan.

c. SR-60 Corridor Study

The SR-60 Corridor Study (2014) is a vision for the SR-60 highway corridor stretching from Nason Street east to Theodore Street. The City has received this study, but it has not been adopted. The plan identifies land use scenarios, including strategies connecting surrounding land uses, and supports a pedestrian oriented development scenario along the regional transit corridor. This plan only includes a small area of land at Nason Street and SR-60, the planning process highlighted the gap in developed walkable town center places in Moreno Valley and the community's desire for having such places locally. The land use vision of the plan is organized into four areas, summarized below.

- Area 1: Single-family residential uses, commercial uses focused on retail but allowing office; storm water detention basins to provide visual/physical buffer for residences/freeway and potential recreation area for nearby residents

- Area 2: commercial retail uses for additional car dealerships for Moreno Valley Auto Mall expansion; industrial and logistics uses along Eucalyptus Avenue; multi-family residential uses between the industrial uses and Auto Mall expansion

- Area 3: area remains commercial and includes one hotel and dine-in restaurants; a portion of Area 3 has subsequently been developed as a Hyundai dealership; the other pads remain vacant

- Area 4: experiential commercial uses that attract residents and visitors; office commercial uses; hotel; single and multi-family residential uses

d. Nason Street Corridor Plan

The Nason Street Corridor Plan (2015) covers a planning area of approximately 2,133 acres and has overlapping areas from the Alessandro Boulevard Corridor Vision Plan (2010) and

the SR-60 Plan (2014). The City has received this plan, but it has not been adopted. These earlier plans were the first two pieces in creating a connected city center in Moreno Valley and the Nason Street Corridor Plan (2015) is the integrating plan that joins the three central areas and their land use plans within Moreno Valley and creates concepts for design and a way to implement in the future. The 2015 Nason Street Corridor Plan envisions the planning area as a town center, a mixed-use district that includes a combination of various land use types such as vertical mixed-use, retail, office, public parks and plazas, civic uses, and a mix of residential types. Within the planning area, the City owns approximately 60 acres of vacant land at the northwest corner of Nason Street and Alessandro Boulevard, adjacent to multiple vacant, privately-owned parcels. The focus of the Nason Street Corridor Plan is on the City-owned property and the parcels bounded by Nason Street, Alessandro Boulevard, and Cottonwood Avenue. The City-owned property is the planning area for Destination MoVal: Town Center (2019), a recent planning effort discussed below.

e. Destination MoVal Town Center

Destination MoVal: Town Center (2019) is a City of Moreno initiated project that published a Request for Proposals (RFP) in November 2019 to transform an approximately 56.42-acre City-owned site at the northwest corner of Nason Street and Alessandro Boulevard. Surrounded by the city's expanding medical corridor, the land use vision for the town center is a new landmark and identity for Moreno Valley—a vibrant, walkable downtown scene that attracts residents, daytime professionals, and visitors to experience a high-quality work/shop/stay/play atmosphere. Residential (apartments and/or condominiums) and corporate headquarter(s) campus are considered acceptable, flexible land use types. The City desires to enter into a Public-Private Partnership in order to achieve sustainable long-term economic and community benefits. The City would sell its acreage to a project that would be developed consistent with the City Council's vision at private expense.

f. Gateway and Streetscape Framework Plan

The Gateway & Streetscape Framework Plan (2019) describes the hierarchy of city gateway entrances, along with concepts and strategies that can foster enhancement of the city's curb appeal, such as improved landscaping, monument signage, expansion of medians, and crosswalk and sidewalk treatment. Five categories of recommendations are offered: Gateway Treatment and Streetscape Policies, Partnering with Local Agencies, Landscaping Standards and Maintenance, Place Making and Branding, and Capital Improvements. The recommendations presented are intended to help foster economic growth and investment in the city. The Gateway & Streetscape Framework Plan is a planning tool, not a regulatory document, and is not a final implementation plan. The concepts and strategies would be considered over an extended period (e.g., 20 years) and implemented only if and where funding resources are available and authorized. This document serves as a valuable, informative resource for the General Plan Update.

g. Kaiser Permanente Moreno Valley Medical Center Master Plan

The Kaiser Permanente Moreno Valley Medical Center Master Plan Project is an expansion of the existing medical center campus on 30 acres of land located in the southern portion of the city on the north side of Iris Avenue, west of Oliver Street, and east of Nason Street. The project includes a multi-phased, state-of-the-art medical center campus anticipated for realization by 2038. Highlighted developments include an approximately 460-bed hospital, hospital support buildings, outpatient medical office buildings, an energy center, and surface and structured parking. This plan/project is located within the city's Medical Use Overlay (MUO) District. The primary purpose of the MUO District is to create a medical corridor by limiting land uses to those that are supportive of and compatible with the city's two existing hospitals. Through the General Plan Update process, the plan for a town center can be linked to the city's expanding medical corridor for mutually beneficial synergy. Applications for the Kaiser Master Plan Project are currently in the review process, and are expected to be considered by decision makers in 2020.

h. Moreno Valley College Comprehensive Master Plan

The Moreno Valley College Comprehensive Master Plan describes the college's long-term education and facilities visions from 2019-2030. The Facilities Master Plan—one of two separate master plans that form the Comprehensive Master Plan—addresses the college's infrastructure/facilities needs. The plan identifies approximately 400,000 gross square feet of new construction and 55,000 gross square feet of building reconstruction at the college campus located south of Iris Avenue, east of Lasselle Street, and north of the Lake Perris Recreation Area.

4.11.3 Methodologies for Determining Impacts

Preparation of this section was based on review of existing land use conditions in the city including aerial images and geographical information systems (GIS) land use data available for the Planning Area. This was followed by an evaluation of how the proposed GPU land use, goals and policies would affect existing land uses within the Planning Area.

4.11.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to land use/planning are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact related to land use would occur if the project would:

1) Physically divide an established community; or

2) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.11.5 Impact Analysis

4.11.5.1 Topic 1: Physically Divide an Established Community

Would the project physically divide an established community?

Implementation of the project would not include new major infrastructure such as a freeway that could physically divide an established community. Currently, approximately 32 percent of the land within the city limit is vacant. Vacant lands include large undeveloped tracts of land at the interior of the city near the hospital complexes and vacant parcels interspersed among existing urban development. The project would primarily focus future development and redevelopment within the proposed Concept Areas, which consist of clusters of vacant and underutilized land within the city limit. Future development and redevelopment would utilize existing transportation facilities and would provide opportunities for new employment, housing, and recreational uses within the existing community framework. The changes envisioned within the proposed land use plan and supporting policies are designed to provide more opportunities for social connections and community. Therefore, the project would not physically divide the community, and impacts would be less than significant.

4.11.5.2 Topic 2: Conflicts with Applicable Plans and Policies

Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Buildout of the project would result in development of approximately 22,052 new homes and approximately 38,915 new jobs by 2040. As the project is a comprehensive update to the City's existing 2006 General Plan, the purpose of the plan is to guide development into the future based on the vision established through the planning process. As detailed in Section 4.11.2.2, there are a number of local planning initiatives and projects that have identified specific goals for the City, or would shape land uses within the city as they are buildout. All of these prior planning efforts and approved projects were considered during development of the 2021 GPU, and many of those prior goals are reflected in the proposed policy framework. For example, the 2021 GPU implements Momentum MoVal by prioritizing economic development and logistics development in the City, along with providing a land use plan that prioritizes creation of town centers and gathering spaces to encourage social exchange in a live, work, and play atmosphere.

In addition to the 2021 GPU, the project includes adoption of a CAP. The 2021 GPU land use plan and policy framework has been established to support implementation of the CAP and ensure internal consistency between the plans. For example, by planning for approximately 22,052 new homes and 38,915 new jobs by 2040, the jobs to housing balance should improve, providing a balance of jobs and housing in the community that would allow more city residents to work locally, cutting down commute times, vehicle miles traveled, and GHG emissions. The project identifies housing sites necessary to meet Regional Housing Needs Allocation (RHNA) goals and ensure consistency with the state housing targets. Project

buildout would result in a total of 72,737 households in 2040, which would be less than the 2040 SCAG household projection of 73,000. Similarly, the project's projected population size of 252,179 would be less than the 2040 SCAG projection of 256,600. This difference in population is due to the greater share of multi-family units that would likely result under buildout of the project compared to buildout of the existing 2006 General Plan, as multi-family units typically have a lower household population. The project would slightly increase the number of jobs to 83,246 compared to the SCAG 2040 growth projection of 83,200. However, this slight increase in approximately 46 jobs would have a negligible effect on future growth that would be offset by the decrease in population and households compared to SCAG 2040 growth projections. Consequently, the project would not generate growth that would exceed 2040 SCAG projections. Furthermore, the project would be subject to the following goals, policies, and actions in the 2021 GPU Land Use and Community Character (LCC) Element.

Goal

LCC-1: Establish an identifiable city structure and a flexible land use framework that accommodates growth and development over the planning horizon.

Identifiable Structure

Policies

LCC.1-1 Foster a balanced mix of employment, housing, educational, entertainment, and recreational uses throughout the city to support a complete community.

LCC.1-2 Expand employment opportunities locally and provide sufficient lands for commercial, industrial, residential and public/quasi-public uses while ensuring that a high quality of life is maintained in Moreno Valley.

LCC.1-3 Locate manufacturing, logistics and industrial uses in areas with good access to the regional transportation network near the periphery of the city.

LCC.1-4 Focus new development in centers and corridors so as to support the vitality of existing businesses, optimize the use of utility infrastructure, and reduce vehicle trip frequency, length, and associated emissions.

LCC.1-5 Encourage mixed use development in either a vertical or horizontal configuration in the Downtown Center, the Moreno Valley Mall/Towngate Center area, and at key intersections along major transit routes.

LCC.1-6 Promote infill development along Alessandro, Sunnymead, and Perris to create mixed use corridors with a range of housing types at mid-to-high densities along their lengths and activity nodes at key intersections with re-tail/commercial uses to serve the daily needs of local residents.

LCC.1-7 Support the continued buildout of residential areas as needed to meet the community's housing needs.

Actions

LCC.1-A Use development agreements, impact fees, benefit districts and other mechanisms to ensure the provision of adequate infrastructure to serve new development.

Growth Management

Policies

LCC.1-8 Promote a land and resource efficient development pattern in order to support efficient delivery of public services and infrastructure, conserve open space lands surrounding the city, reduce vehicle trip lengths and improve air quality.

LCC.1-9 Maintain City boundaries that are logical in terms of City service capabilities, economic development needs, social and economic interdependencies, citizen desires, and City costs and revenues.

LCC.1-10 Plan comprehensively for the annexation of any new areas and approve annexation only after City approval of an appropriate area-wide plan (e.g., master plan, specific plan) that addresses land use, circulation, housing, infrastructure, and public facilities and services. Exceptions to this requirement for area-wide plans include annexations of:

- Existing developed areas;
- Areas of less than five acres; and
- Housing developments for very-low and low-income households.

LCC.1-11 Require that new development be compatible with the standards for land uses, density and intensity specified in the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (March ALUC Plan).

LCC.1-12 Balance levels of employment and housing within the community to provide more opportunities for Moreno Valley residents to work locally, cut com-mute times, and improve air quality.

Actions

LCC.1-B Map all planning actions, such as rezonings on a large display map, keyed to the year action was taken. Use this map to pinpoint areas which re-quire special studies and possible amendment on the General Plan land use map.

Goal

LCC-2: Foster vibrant gathering places for Marino Valley residents and visitors.

Policies

LCC.2-1 Create a Downtown Center with a vibrant mix of uses that will serve as the primary hub and focal point of Moreno Valley economic and cultural engine in the region.

LCC.2-2 Require that proposed projects in the Downtown Center prepare an area plan demonstrating consistency with the principles outlined in Table LCC-2 and the illustrative development program shown in Table LCC-3 prior to approval. Development on smaller parcels may satisfy this requirement with a site plan.

LCC.2-3 Within the Downtown Center, ensure the high intensity of development is concentrated so as to create a central core with a mix of uses to activate it throughout the day and evening and to promote strong connectivity be-tween new uses and RUMC, Aquabella, and the Kaiser hospital campus.

LCC.2-4 Leverage the presence of the hospitals and large tracts of vacant land to at-tract new higher-wage employers to the Downtown Center.

LCC.2-5 Integrate new employment-oriented uses into the fabric of the Downtown Center as employment, educational, corporate, and research campuses and/or as part of mixed use developments.

LCC.2-6 Create a Central Park facility to serve as a defining feature of the Downtown Center.

LCC.2-7 Recognize recreation and entertainment as key contributors to the vitality of the Downtown Center and accommodate a world class sports/recreational facility to provide activities and entertainment for Moreno Valley residents.

LCC.2-8 Transform Nason Street and Alessandro Boulevard into a grand boulevard with a distinctive, inviting character that announces arrival in Downtown Moreno Valley.

LCC.2-9 Support the vitality of commercial and retail development downtown with significant new housing in and adjacent to the Downtown Center.

LCC.2-10 Create an attractive, safe environment for bicycles and pedestrians that promotes "micro-mobility" and connectivity within the Downtown Center as well as encourage electric and autonomous vehicles.

LCC.2-11 Allow for the evolution of the Downtown Center and encourage site planning that facilitates redevelopment of sites within the core of the area in the future as land values increase and higher development intensities become more financially feasible.

LCC.2-12 Introduce medium to high density housing to the site and provide town-homes, apartments, and condominiums that cater to the needs of residents of all ages and stages of life.

LCC.2-13 Allow the maximum permitted FAR to be calculated across multiple parcels in a single proposed development at the Moreno Valley Mall in order to incentivize signature development that makes a positive contribution to com-munity character at this prominent gateway site.

LCC.2-14 Focus on attracting essential services to the site, such as medical clinics, a grocery store, banks, and dry cleaners to the site to provide for the needs of area residents and ensure the vitality of the site over time.

LCC.2-15 Encourage mixed use development and the co-location of residential and commercial uses within sight distance of one another on the site to promote day and evening vitality.

LCC.2-16 Design residential buildings adjacent to the freeway with adequate ventilation and sound proofing to minimize air and noise impacts.

LCC.2-17 Provide restaurants, cafes and bars with terraces, as well as public plazas, parks, public art, and family-friendly amenities that activate public spaces and build sense of place.

LCC.2-18 Design and build new internal roadways with narrower widths, ample sidewalks, and street parking to help create a more intimate walkable feel in the areas.

LCC.2-19 Provide a network of interconnected streets, paseos, pathways, and bicycle routes onsite that facilitates travel through the site for pedestrians, cyclists and other non-motorized modes of transportation.

LCC.2-20 Encourage site designs that create an active street frontage and screen parking from the frontages of Alessandro, Sunnymead and Perris.

LCC.2-21 Orient residential uses to the street and discourage the use of walls and fences. Employ a variety of techniques to buffer residential uses on the corridors from traffic and noise, including setbacks, landscaping, stoops, and raised entries.

LCC.2-22 Encourage new mixed-use and commercial development to incorporate visual quality and interest in architectural design on all visible sides of buildings through the following approaches:

- Utilizing varied massing and roof types, floor plans, detailed planting de-sign, or color and materials;
- Maintaining overall harmony while providing smaller-scale variety; and
- Articulating building facades with distinctive architectural features like awnings, windows, doors, and other such elements.

LCC.2-23 Ensure that commercial uses are designed to incorporate ground floor transparency and pedestrian activity.

LCC.2-24 At intersections on the mixed use corridors, prioritize retail and other uses that promote pedestrian activity on the ground floor of buildings.

LCC.2-25 Encourage the development of bicycle, pedestrian, and transit access that reduces the need for on-site parking. Improve the pedestrian experience within these corridors through street trees and landscaping.

LCC.2-26 Provide streetscape improvements along the mixed use corridors of Alessandro, Sunnymead, and Perris to enhance livability, vitality, and safety for all modes of travel.

LCC.2-27 Where possible, require that adjacent uses share driveways in order to limit the number of curb cuts along Alessandro, Sunnymead, Nason, and Perris.

LCC.2-28 Encourage landscaped common public spaces to be incorporated into new mixed-use development.

LCC.2-29 Design of public spaces should ensure they are:

- Lined with active uses at-grade and located near building entrances, windows, outdoor seating, patios, or balconies that overlook park spaces, and other areas with strong pedestrian activity.
- Be completely visible from at least one street frontage and as feasible, be at least 50% visible from a secondary street frontage.
- Primarily defined by adjacent buildings, which will contribute to the unity and environmental quality of the space.
- be located at the same grade level as the public sidewalk when possible. Where changes in grade are an important element of the overall design and programming, clear and direct access from the public sidewalk should be accommodated, and universal accessibility pro-vided.
- Reflect the design and placemaking elements of the surrounding area through the use of architectural styles, signage, colors, textures, materials and other elements.
- Be constructed with low impact and permeable paving materials to efficiently manage the stormwater and minimize the area's heat is-land effect.
- Connect to bike and pedestrian facilities and be a part of an inter-connected pathway or parkway system where feasible.

LCC.2-30 Establish parks and plazas to serve as meeting areas in new neighborhoods and ensure a safe and secure environment through the development review and approval process.

LCC.2-31 Support development of the Moreno Valley College campus in ways that both strengthen its ties to the community and enhance its status as a major activity center for the neighborhood.

Actions

LCC.2-A Establish flexible zoning regulations to guide development in the Downtown Center.

LCC.2-B Prioritize the completion of catalyst projects for the Downtown Center, including the Town Center development at Nason and Alessandro and the Aquabella Specific Plan.

LCC.2-C Work with property owners at the Moreno Valley Mall and Towngate Center to facilitate redevelopment of underutilized parcels.

Goal

LCC-3: Build a distinctive sense of place and pride in Moreno Valley.

General

Policies

LCC.3-1 Insist on high-quality development that is sensitive to surrounding context throughout the city and particularly in centers and corridors.

LCC.3-2 Use development standards to ensure smooth transitions for areas that border one another so that neighborhoods and districts maintain their unique qualities while being compatible with one another.

LCC.3-3 Promote the Moreno Valley College as a community asset that contributes to local identity and seek to better integrate the College with the rest of the city, including the Downtown Center and adjacent neighborhoods through urban design, transportation linkages, and promotion of College events.

Gateways

Policies

LCC.3-4 Strengthen the sense of arrival into Moreno Valley and the Downtown Center with gateway design at the locations shown on Figure LCC-4. Gateway design elements shall include streetscape design, signage, building massing, and similarly-themed design elements.

LCC.3-5 Incorporate prominent corner architectural features, such as prominent entries or corner towers, on new development at key intersections or gate-ways.

LCC.3-6 Maintain continuity in streetscape design along major streets and avenues that traverse the city north to south and east to west.

LCC.3-7 Continue to support community identity with streetscape improvement and beautification projects in both existing residential areas and commercial centers, as well as new mixed-use areas that incorporate unified landscaping and pedestrian amenities. Amenities should include bus shelters, pedestrian safety treatments such as sidewalk bulb-outs and widening and improved crosswalks, and city-branded decorative elements such as street lighting, concrete pavers, tree grates, and theme rails.

Actions

LCC.3-A Establish a unified gateway design palette and guidelines that address streetscape design, signage, lighting, and building massing and setbacks to heighten sense of place.

LCC.3-B Develop a program of branding, signage, and wayfinding to promote connections with Lake Perris. The program should apply on key access routes to Lake Perris, including Moreno Beach Drive, Alessandro and Cactus and should seek to build visual connections and foster land uses and businesses that encourage recreational activities.

Arts and Culture

Policies

LCC.3-8 Encourage development and display of public art to promote the history, heritage, culture and contemporary identity of Moreno Valley.

LCC.3-9 Promote cooperative arrangements with other public or private agencies that facilitate the temporary or permanent display of works of art for display within or upon public or private facilities and land.

Actions

LCC.3-C Consider establishing a public art ordinance that would require large pro-jects to install public art or contribute an in lieu fee that can be put toward the cost of public art installations.

LCC.3-D Continue to support and fund local artists and students to create public art.

LCC.3-E Explore a range of public and private funding sources to support the visual and performing arts and cultural development goals and activities.

Historic Resources

Policies

LCC.3-10 Balance the preservation of historic resources with the desire of property owners of historic structures to adopt energy efficient strategies.

LCC.3-11 Require any application that would alter or demolish an undesignated and unsurveyed resource over 50-years-old to be assessed on the merits of the structure.

Residential Areas

Policies

LCC.3-12 Promote the preservation, maintenance, and improvement of property through code enforcement to mitigate or eliminate deterioration and blight conditions, and to help encourage new development and reinvestment.

LCC.3-13 New and retrofitted fences and walls should incorporate landscape elements and changes in materials or texture to deter graffiti and add visual interest.

LCC.3-14 Within individual residential projects, a variety of floor plans and elevations should be offered.

LCC.3-15 Encourage building placement variations, roofline variations, architectural projections, and other embellishments to enhance the visual interest along residential streets.

LCC.3-16 Design large-scale small lot single family and multiple family residential pro-jects to group dwellings around individual open space and/or recreational features.

LCC.3-17 Screen and buffer nonresidential projects to protect adjacent residential property and other sensitive land uses when necessary to mitigate noise, glare and other adverse effects on adjacent uses.

LCC.3-18 Design internal roadways so that direct access is available to all structures visible from a particular parking area entrance in order to eliminate unnecessary vehicle travel, and to improve emergency response.

Actions

LCC.3-F Establish residential design guidelines for single-family and multi-family development that address site design, building materials, roof lines, and landscaping.

Commercial Areas

Policies

LCC.3-19 Ensure that neighborhood shopping centers are designed in a manner compatible with adjacent residential areas.

LCC.3-20 Rely on strong landscape treatments, setbacks, sign controls, and, where feasible, underground utilities and street improvements to prevent visual chaos where businesses are competing for attention.

LCC.3-21 Ensure that neighborhood shopping centers conform to regulations limiting the size, location, and general character of signage and facades so as not to disrupt the residential character of the neighborhood.

LCC.3-22 Preserve and encourage neighborhood stores that enable shoppers to walk or bike for everyday needs, provide access to healthy foods, and promote a sense of community.

LCC.3-23 Require reciprocal parking and access agreements between individual parcels where practical.

Actions

LCC.3-G Work with existing business owners to promote the improvement and maintenance of facades of commercial uses.

LCC.3-H Pursue funding and programs to underground utilities and overhead wires.

Goal

LLC-4: Expand the range of housing types in Moreno Valley and ensure a variety of options to suit the needs of people of all ages and income levels.

Policies

LCC.4-1 Promote a range of residential densities throughout the community to encourage a mix of housing types in varying price ranges and rental rates.

LCC.4-2 Promote the development of a greater variety of housing types, including single-family homes on small lots, accessory dwelling units, townhomes, lofts, live-work spaces, and senior and student housing to meet the needs of future demographics and changing family sizes.

LCC.4-3 Encourage a mix of for sale and rental housing units in centers and corridors.

LCC.4-4 Encourage multi-family developments and live-work units in residential mixed use areas to provide housing options that are affordable for artists, creative entrepreneurs, emerging industries, and home-based business operators.

LCC.4-5 Encourage the use of innovative and cost-effective building materials, site design practices and energy and water conservation measures to conserve resources and reduce the cost of residential development.

LCC.4-6 Cater to the needs of larger, multi-generational families by both promoting the development of 3 and 4-bedroom homes and by facilitating construction of accessory dwelling units.

LCC.4-7 Promote availability of senior and independent assisted living facilities distributed equitably throughout the community to meet the needs of the community's aging population.

LCC.4-8 Facilitate opportunities to incorporate innovative design and program features into affordable housing developments, such as on-site health and hu-man services, community gardens, car-sharing, and bike facilities. Support the development of projects that serve homeless and special needs populations.

LCC.4-9 Densities in excess of the maximum allowable density for residential pro-jects may be permitted pursuant to California density bonus law.

Therefore, the project would not cause a significant environmental impact due to a conflict with any applicable plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.

a. Specific Plans

Implementation of the 2021 GPU would be consistent with specific plans, as the 2021 GPU would provide an updated guide for development within specific plan areas with remaining development potential. Some of the proposed Concept Areas where growth is focused have specific plans that have already been approved. In areas where existing specific plans have been newly adopted, or where unbuilt capacity remains and circumstances have not changed, including industrial areas in the east and southwest of the city, the 2021 GPU envisions continued implementation of the adopted specific plans. Where existing specific plan areas have achieved their useful life, or there is no specific plan in place, the 2021 GPU presents a vision and a set of policies and actions to implement the plan based on community input. Outside of the Concept Areas and specific plan areas, the 2021 GPU envisions new development on vacant parcels in a manner consistent with the existing land use pattern and character of the surrounding area.

For example, within the planned Downtown Center, approximately 80 percent of the land is vacant and undeveloped, including the 730-acre Aquabella Specific Plan area and a 56-acre parcel at the northwest corner of Nason and Alessandro owned by the City. The 2021 GPU envisions the integration of the Aquabella Specific Plan area into the Downtown Center,

allowing for development of supportive medical facilities, a hotel, and shops and services oriented to patients and their families adjacent to the hospitals, while also permitting development of the low-to-mid density development consistent with the underlying zoning for the Specific Plan Area. No conflicts have been identified between the 2021 GPU and Specific Plans, and impacts would be less than significant.

b. County of Riverside General Plan

As discussed in Section 4.2.1.1 above, the Riverside County General Plan has jurisdiction over unincorporated territory within the County, including lands within the City's SOI. Although the 2021 GPU identifies land use designations within the City's sphere that are not consistent with the Riverside County General Plan, no conflicts would occur because the Riverside County General Plan would continue to apply until such time that an annexation were to occur to bring lands into the City boundary. Therefore, the 2021 GPU would not conflict with the Riverside County General Plan, and impacts would be less than significant.

c. March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan

Within the city limit, the MARB/IPA ALUCP affects over 250 sites (parcels) previously identified by the 2014-21 Housing Element as housing opportunity sites. Approximately 75 out of the 95 acres of residential area located within the Edgemont are inconsistent with the ALUCP due to densities that exceed allowances in the ALUCP. While existing nonconforming land uses are not considered to be inconsistent with the ALUCP, any future development/expansion of uses would need to be consistent with the ALUCP. The proposed 2021 GPU land use designations have been developed to allow for compatibility with the MARB/IPA ALUCP. A new designation called Business-Flex has been planned and strategically sites to promote compatibility with airport regulations. This designation would allow light manufacturing, research and development, warehousing and distribution, and other uses consistent with applicable airport land use compatibility regulations. In addition, the Land Use Element includes a policy that requires new development to be compatible with the standards for land uses, density and intensity specified in the MARB/IPA ALUCP. The 2021 GPU proposed land uses, combined with implementation of a required consistency analysis with the MARB/IPA ALUCP at the time of future development, would ensure no conflicts would occur with this plan, and impacts would be less than significant.

4.11.6 Cumulative Analysis

Development consistent with the proposed land use framework would be subject to site-specific policy consistency analysis and compliance with applicable regulations such as the municipal code. Application of regulations for each individual site-specific project would ensure that cumulative impacts related to land use consistency would be avoided. The project has incorporated policies to guide development consistent with the 2021 GPU that would ensure land use compatibility and avoid physical division of community. Individual site-specific projects would be subject to applicable 2021 GPU policies and municipal code

regulations. Therefore, the project would not contribute to a cumulative impact related to land use.

4.11.7 Significance of Impacts before Mitigation

4.11.7.1 Topic 1: Physically Divide an Established Community

Implementation of the project would not include new major infrastructure, such as a freeway, that could physically divide an established community. The changes envisioned with the land use plan and supporting policies are designed to increase community connections. Therefore, the project would not physically divide the community, and impacts would be less than significant.

4.11.7.2 Topic 2: Conflicts with Applicable Plans and Policies

The project would implement various City planning initiatives, identifies housing sites necessary to meet RHNA goals and ensure consistency with the state housing targets, and would facilitate implementation of the CAP. Furthermore, the project would not generate growth that would exceed 2040 SCAG projections. Therefore, the project would not cause a significant environmental impact due to a conflict with any applicable plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.

4.11.8 Mitigation

4.11.8.1 Topic 1: Physically Divide an Established Community

Impacts would be less than significant. No mitigation is required.

4.11.8.2 Topic 2: Conflicts with Applicable Plans and Policies

Impacts would be less than significant. No mitigation is required.

4.11.9 Significance of Impacts after Mitigation

4.11.9.1 Topic 1: Physically Divide an Established Community

Impacts would be less than significant. No mitigation is required.

4.11.9.2 Topic 2: Conflicts with Applicable Plans and Policies

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Mineral Resources remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.12 Mineral Resources

This section analyzes potentially significant impacts related to mineral resources that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan. The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refers to those areas where the GPU proposes land use changes as shown on Figure 3-1. This analysis relies on secondary sources including state and regional mineral mapping.

4.12.1 Existing Conditions

There are no active mineral resource extraction facilities within the Planning Area. The existing 2006 General Plan land use map, as well as the proposed GPU land use map, do not delineate any mineral resource recovery sites, or designate any land for mineral resource production. The Land Use Plan of the County of Riverside Reche Canyon/Badlands Subarea designates land along Jack Rabbit Road within the southeastern portion of the Planning Area under the Mineral Resources designation (County of Riverside 2020).

4.12.2 Applicable Regulatory Requirements

4.12.2.1 Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) of 1975 established policies for the conservation, development, and reclamation of mineral lands. It also contained specific provisions for the California Geological Survey to classify the regional significance of mineral resources through the use of Mineral Resource Zones (MRZs). The objective of these zones is to identify the significance of mineral deposits and ensure that the mineral potential of land is recognized and considered by local government decision-makers before they make land use decisions that could preclude mining. The highest priority areas are those within the state that are subject to urban expansion or other irreversible land uses that would preclude mineral extraction. The following provides a description of the four different MRZs:

- MRZ-1 designates areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2 designates areas underlain by mineral deposits where geologic data indicates that significant measured or indicated mineral resources are present.

- MRZ-3 designates areas that contain known mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4 designates areas where available information is inadequate for assignment to an MRZ zone.

Figure 4.12-1 presents the distribution of each MRZ category within the Planning Area, while Table 4.12-1 presents the approximate acreage of each MRZ category within the Planning Area. The majority of land within the Planning Area is designated as MRZ-3, land for which the significance of mineral resources cannot be determined. Some land within the southwestern portion of the city is designated as MRZ-1, land where adequate geologic information indicates that no significant mineral deposits are present (1,190 acres), and a small amount of land in the southeastern portion of the Planning Area is categorized as MRZ-2, areas underlain by mineral deposits where geologic data indicates that significant measured or indicated mineral resources are present (70 acres).

Table 4.12-1
Acreage of Mineral Resource Zones within the Planning Area

Category	Acres
MRZ-1	1,190
MRZ-2	70
MRZ-3	41,657
MRZ-4	0
TOTAL	42,917

4.12.3 Methodologies for Determining Impacts

The impact evaluation began with a review to determine if existing mineral resource extraction activities occur within the Planning Area, and mapping the acreage of each MRZ category within the Planning Area.

4.12.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to air quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact related to mineral resources would occur if the project would:

1) 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; or

2) 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.

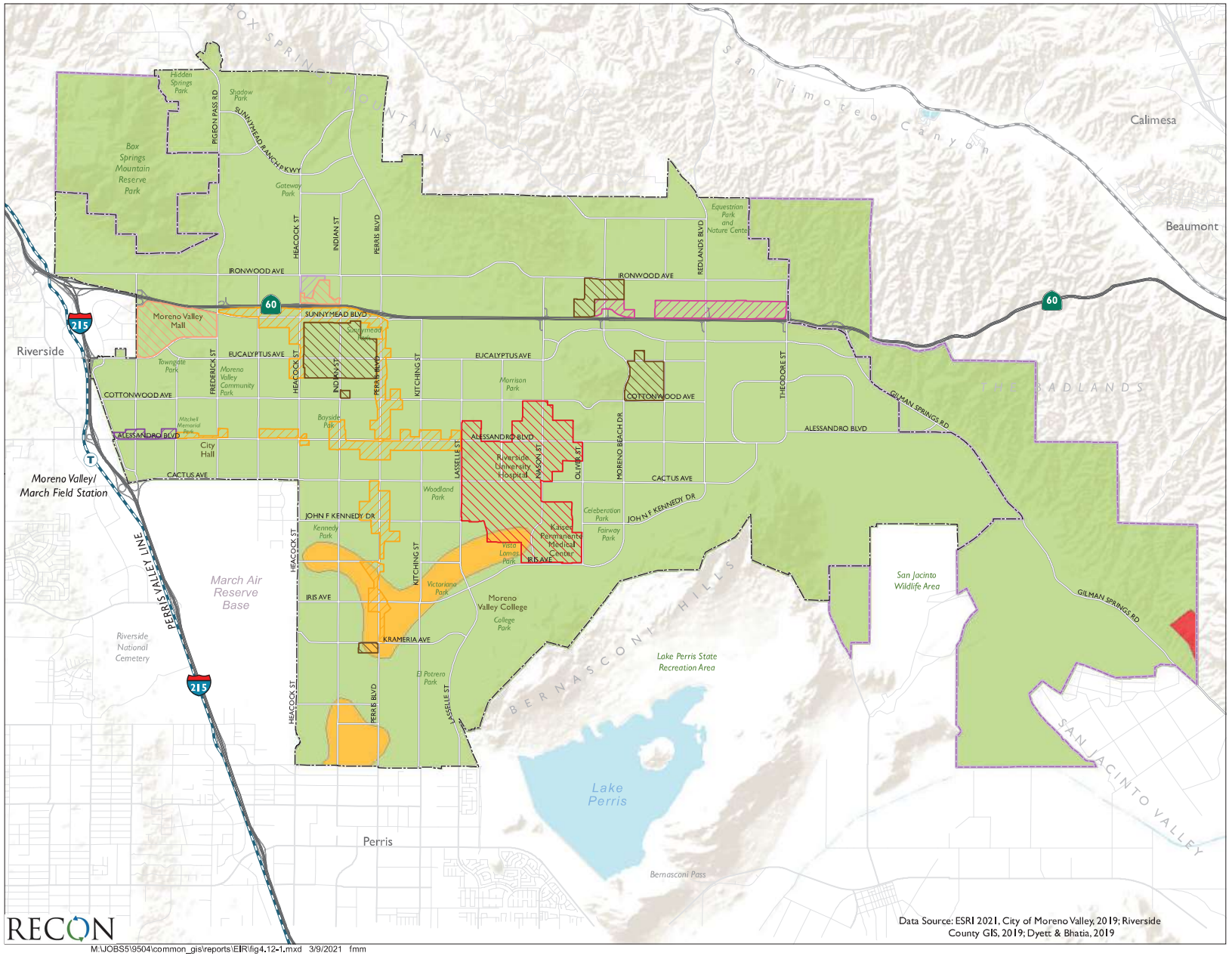


FIGURE 4.12-1
Mineral Resource Zones

4.12.5 Impact Analysis

4.12.5.1 Topic 1: Mineral Resources

Would the project 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?

Implementation of the GPU would primarily focus new development and redevelopment within the Concept Areas. These areas are largely within or surrounded by existing urbanization, which would make them infeasible for mining. As described in Section 4.12.2.1 above, the majority of land within the Planning Area is designated as MRZ-3, land for which the significance of mineral resources cannot be determined, or MRZ-1, land for which adequate geologic information indicates that no significant mineral deposits are present. Neither of these MRZ categories are considered significant mineral resources. The small amount of land designated as MRZ-2, areas underlain by mineral deposits where geologic data indicates that significant measured or indicated mineral resources are present, is not located within any of the proposed Concept Areas. Furthermore, this area is not currently used for mineral resource extraction. Therefore, the project would not result in the loss of availability of regionally valuable mineral resources, and impacts would be less than significant.

4.12.5.2 Topic 2: Mineral Resource Recovery Site

Would the project 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?

As described in Section 4.12.1 above, there are no active mineral resource extraction facilities within the Planning Area. The existing 2006 General Plan land use map, as well as the proposed GPU land use map do not delineate any mineral resource recovery sites, or designate any land for mineral resource production. Therefore, implementation of the project would not result in the loss of a designated mineral recovery site and no impact would occur.

4.12.6 Cumulative Analysis

The majority of land within the Planning Area is designated as MRZ-3, land for which the significance of mineral resources cannot be determined, or MRZ-1, land for which adequate geologic information indicates that no significant mineral deposits are present. Neither of these MRZ categories are considered significant mineral resources. The small amount of land designated as MRZ-2, areas underlain by mineral deposits where geologic data indicates that significant measured or indicated mineral resources are present, is not located within any of the proposed Concept Areas. The Planning Area does not possess any mineral resource recovery sites. Therefore, the project would not contribute to a cumulative impact related to mineral resources.

4.12.7 Significance of Impacts before Mitigation

4.12.8.1 Topic 1: Mineral Resources

Impacts would be less than significant. No mitigation is required.

4.12.8.2 Topic 2: Mineral Resource Recovery Site

No impact would occur. No mitigation is required.

4.12.8 Mitigation

4.12.8.1 Topic 1: Mineral Resources

Impacts would be less than significant. No mitigation is required.

4.12.8.2 Topic 2: Mineral Resource Recovery Site

No impact would occur. No mitigation is required.

4.12.9 Significance of Impacts after Mitigation

4.12.9.1 Topic 1: Mineral Resources

Impacts would be less than significant. No mitigation is required.

4.12.9.2 Topic 2: Mineral Resource Recovery Site

No impact would occur. No mitigation is required.

This page intentionally left blank.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.13, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

4.13 Noise

This section analyzes the noise impacts that could result from implementation of the Project, which consists of the 2024 General Plan Update ("GPU"), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan ("CAP"). The analysis area covers the City of Moreno Valley ("City") and its sphere of influence, which are collectively referred to as the Planning Area. The analysis in this section is based on the existing and proposed land use patterns, existing and buildout traffic volumes on Planning Area freeways and roadways, and vehicle miles traveled ("VMT") documented in the VMT Assessment (Appendix E). Noise measurement and modeling data is provided in Appendix D.

4.13.1 Existing Conditions

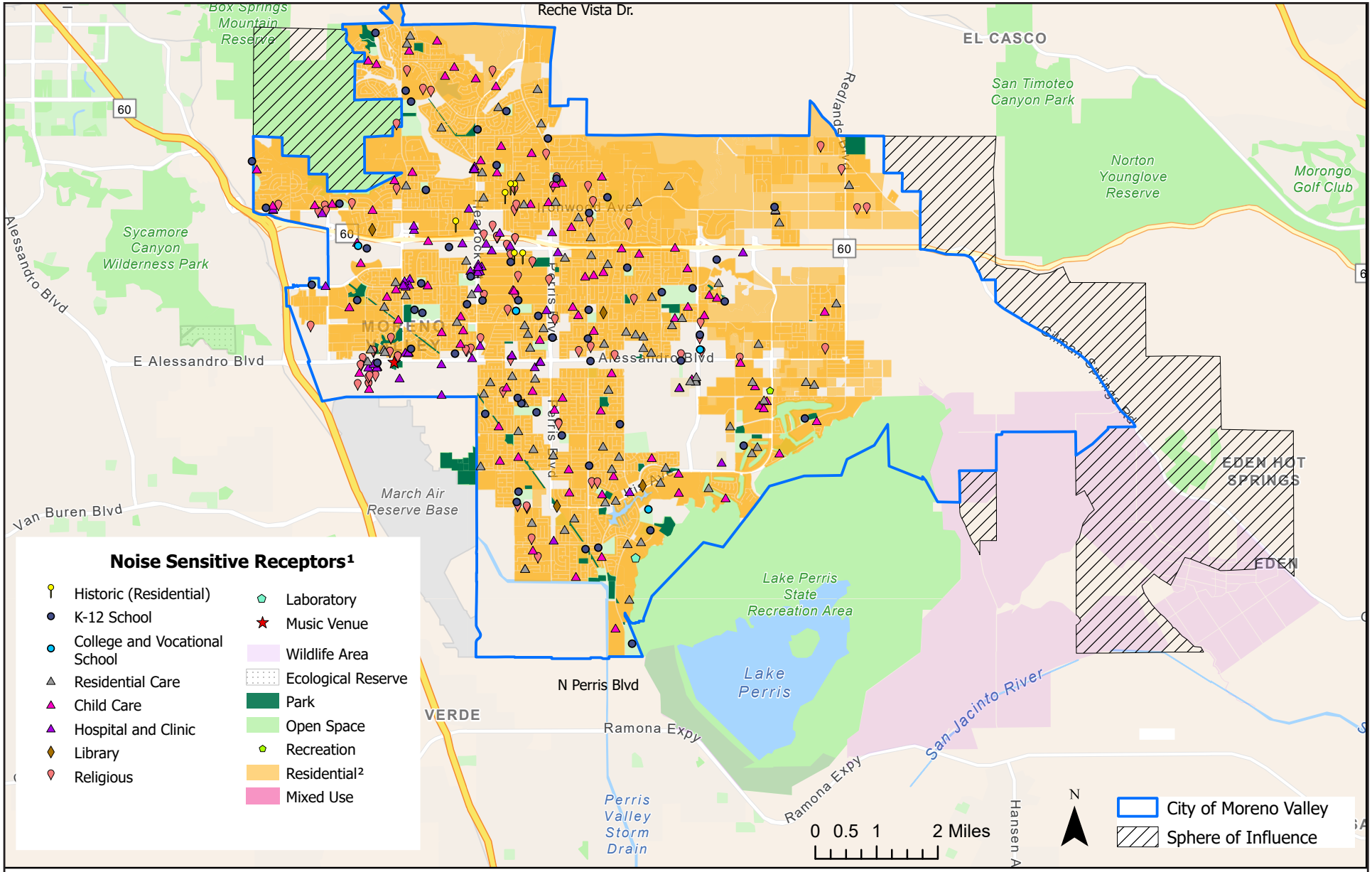
The Planning Area is subject to typical urban noises such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. The Planning Area also has several transportation-related noise sources, including airport noise, railroad operations, major arterials, Interstate 215 (I-215), and State Route 60 (SR 60). Noise sources that are not directly related to transportation include noise from commercial and industrial centers, construction, and property maintenance activities.

4.13.1.1 Noise-Sensitive Receptors

Noise-sensitive receptors are associated with land uses wherein quiet environments are necessary for enjoyment, public health, and safety. Noise-sensitive receptors include residential (single and multiple dwelling unit development and similar uses); transient lodging (which are sensitive at night including hotels, motels, and similar uses); facilities for long-term medical care; daycare facilities; private or public educational facilities; libraries; churches; and other places of public gathering. Exterior use areas may additionally be considered a noise-sensitive receptor where frequent human use for prolonged periods (at least an hour) may reasonably occur. Common examples of exterior use areas include residential backyards, multiple dwelling unit communal areas, patios, picnic areas, recreation areas, playgrounds, active sports areas, and parks. See Figure 4.13-1: Existing Noise Sensitive Receptors.

4.13.1.2 Vibration-Sensitive Receptors

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. The federal government has established standards for the human response and the effects on buildings resulting from continuous vibration in terms of peak particle velocity (PPV).



¹ South Coast Air Quality Management District (SCAQMD), CEQA Air Quality Handbook, 1993
² Residential and Mixed Used zones per City of Moreno Valley General Plan 2006 Zoning Map

FIGURE 4.13-1: EXISTING NOISE SENSITIVE RECEPTORS MAP
MoVal 2040 Revised Draft Program EIR

Kimley»Horn

4.13.1.3 Fundamentals of Noise and Vibration

a. Fundamentals of Noise

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while often confused, are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw}, is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an ear drum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. Additionally, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL). The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies a 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and a 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point

when viewed over some time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dB(A) per doubling of distance.

Human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 dB(A) barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (California Department of Transportation [Caltrans] 2013).

b. Fundamentals of Vibration

Vibration consists of energy waves transmitted through solid material.[1] Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.[2]

Groundborne vibration is measured by its PPV, which is normally described in inches per second (in/sec). PPV is appropriate for determining potential structure damage but does not evaluate human response to vibration. The ground motion caused by vibration may also be described in decibel notation (vibration decibels), referenced as VdB, which serves to compress the range of numbers required to describe vibration relative to human response. The general human response to different levels of groundborne vibration velocity levels is described in Table 4.13-1.

Table 4.13-1
Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations

Maximum PPV (in/sec)	Caltrans Vibration Annoyance Potential Criteria	Caltrans Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--

[1] Federal Transit Administration (FTA), 2018, *Transit Noise and Vibration Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018.

[2] Federal Transit Administration (FTA), 2018, *Transit Noise and Vibration Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018.

Table 4.13-1
Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibrations

Maximum PPV (in/sec)	Caltrans Vibration Annoyance Potential Criteria	Caltrans Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.08	Readily Perceptible	--	--
0.1	Begins to Annoy	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	Annoying	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry
0.4	Unpleasant	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)

SOURCE: California Department of Transportation, Transportation and Construction Vibration Guidance Manual, 2020; Federal Transit Administration, Transit Noise and Vibration Assessment Manual, 2018.

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

Groundborne vibration can be a concern for nearby residents along a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. Groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains; buses on rough roads; and construction activities such as blasting, pile-driving, and operating heavy earth-moving equipment.

4.13.1.4 Ambient Noise Measurements

To quantify existing ambient noise levels in the Planning Area, Kimley-Horn conducted ten short-term (15-minute) measurements on Thursday, August 8, 2024. The noise measurement

sites were selected to be representative of the existing noise exposure within the Planning Area. The 15-minute daytime measurements were taken between 9:15 a.m. and 3:16 p.m. The average noise levels measured at each location are listed in Table 4.13-2: Existing Noise Measurement Locations and Measurements and shown in Figure 4.13-2: Noise Measurement Locations.

Table 4.13-2
Existing Noise Measurement Locations and Measurements

Site	Location	Measurement Period	Duration	Daytime Average L_{eq} (dB[A])
ST-1	Old 215 Frontage Road, facing west towards SR-215	9:15 a.m.- 9:30 a.m.	15 minutes	67.3
ST-2	Gateway Drive and Memorial Way	10:00 a.m. - 10:15 a.m.	15 minutes	54.3
ST-3	Olive wood Plaza Drive, facing northeast towards SR 60	11:37 a.m. – 11:42 a.m.	15 minutes	60.3
ST-4	Quebrada Court	11:16 a.m. – 11:31 a.m.	15 minutes	52.7
ST-5	Gateway Park	11:41 a.m. - 11:56 a.m.	15 minutes	54.7
ST-6	Twilight Way and Locust Avenue	12:22 p.m. -12:37 p.m.	15 minutes	56.3
ST-7	Canterbury Downs Way and Dracaea Avenue	1:16 p.m. – 1:31 p.m.	15 minutes	52.9
ST-8	Brodiaea Ave, facing east towards Neason Street	1:48 p.m. -2:03 p.m.	15 minutes	50.0
ST-9	Lynx Avenue and Krameria Ave	2:26 p.m. – 2:41 p.m.	15 minutes	62.0
ST-10	Moreno Valley City Hall	3:01 p.m. – 3:16 p.m.	15 minutes	54.3

SOURCE: Noise measurements taken by Kimley-Horn and Associates, Inc., August 8, 2024. See Appendix D.

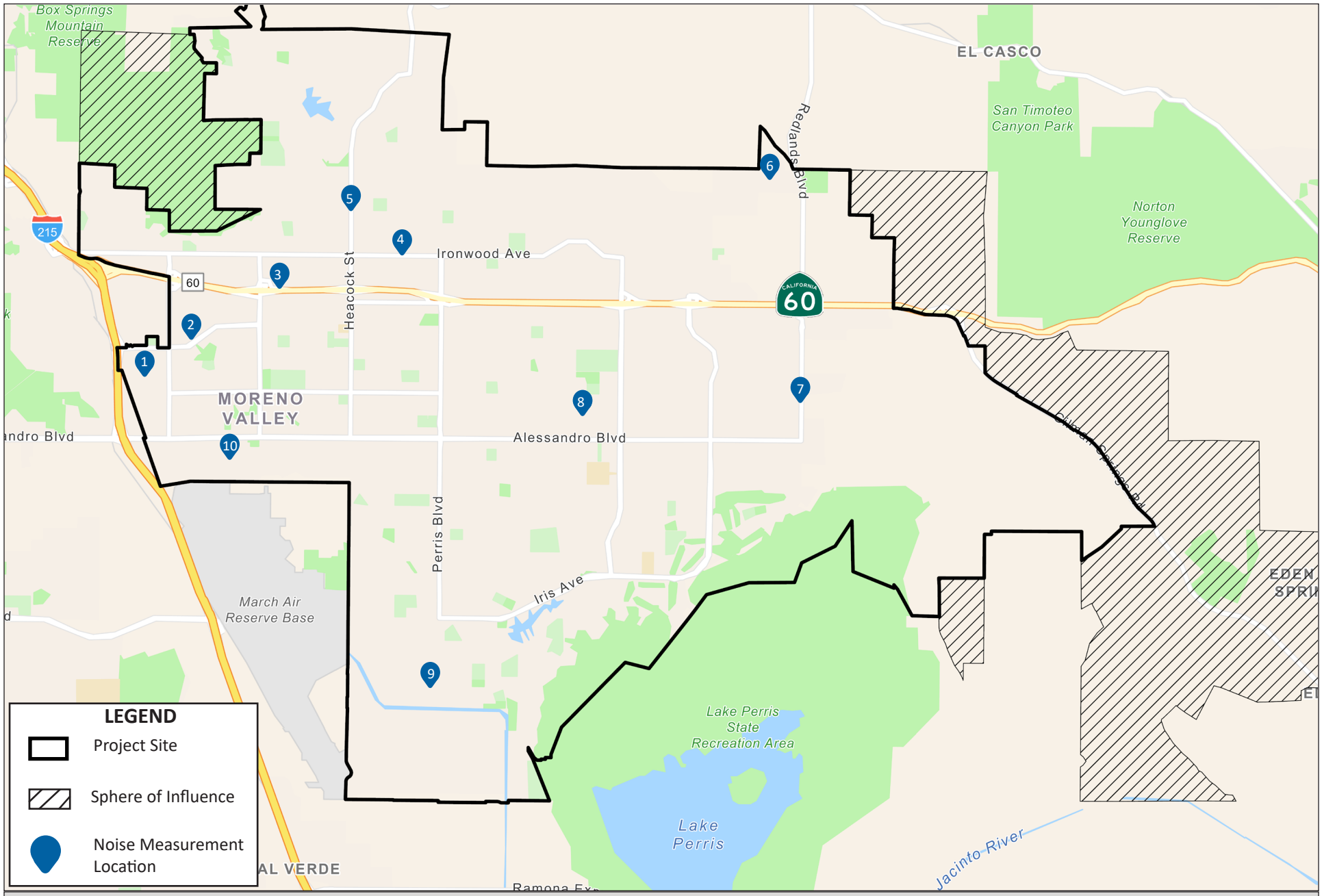


FIGURE 4.13-2: NOISE MEASUREMENT LOCATIONS

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

Measurement 1 was taken along Old 215 Frontage Road, facing west towards SR-215. The main source of noise at this measurement location was vehicle traffic on I-215. The average measured noise level was 67.3 dB(A) L_{eq}.

Measurement 2 was located at Gateway Drive and Memorial Way. The main source of noise at this location was vehicle traffic and a carwash. Other noise sources included parking lot activities and buses. The average measured noise level was 54.3 dB(A) L_{eq}.

Measurement 3 was located along Olive Wood Plaza Drive, south of SR 60. The main source of noise at this location was vehicle traffic along SR 60. The average measured noise level was 60.3 dB(A) L_{eq}.

Measurement 4 was taken on Quebrada Court, east of Perris Boulevard and north of Ironwood Avenue. The main source of noise at this location was vehicle traffic. Other sources of noise included airplanes. The average measured noise level was 52.7 dB(A) L_{eq}.

Measurement 5 was taken at Gateway Park along Heacock Street. The main source of noise at this location was vehicle traffic on Heacock Street. The average measured noise level was 54.7 dB(A) L_{eq}.

Measurement 6 was taken at Twilight Way and Locust Avenue, west of Redlands Boulevard. The main source of noise at this location was vehicle traffic. Other sources included landscaping equipment. The average measured noise level was 56.3 dB(A) L_{eq}.

Measurement 7 was taken at Canterbury Downs Way and Dracaea Avenue, west of Redlands Boulevard. The main source of noise at this location was vehicle traffic. The average measured noise level was 52.9 dB(A) L_{eq}.

Measurement 8 was taken along Brodiaea Avenue near Nason Street. The main source of noise was vehicle traffic. Other sources of noise included aircraft from March Air Reserve Base (MARB). The average measured noise level was 50.0 dB(A) L_{eq}.

Measurement 9 was taken along Krameria Avenue near at Lynx. The main source of noise was vehicle traffic. Other sources of noise included aircraft from MARB. The average measured noise level was 62.0 dB(A) L_{eq}.

Measurement 10 was taken at Moreno Valley City Hall. The main source of noise at this location was vehicle traffic. Other sources of noise included and airplanes. The average measured noise level was 54.3 dB(A) L_{eq}.

4.13.1.5 Existing Traffic Noise

Major roads generating the greatest noise level in the Planning Area are I-215, SR 60, Alessandro Boulevard, and Perris Boulevard. Additionally, numerous other roads within the Planning Area are also major sources of noise. The noise contour distances represent the predicted noise level for each roadway without the attenuating effects of noise barriers, structures, topography, or dense vegetation. As intervening structures, topography, and dense vegetation would affect noise exposure at a particular location, the noise contours

should not be considered site-specific but are rather guides to determine when detailed acoustic analysis should be undertaken.

Figure 4.13-3: Existing Traffic Noise Contours shows the existing vehicle traffic noise contours for the Planning Area. As shown, existing noise levels at areas located closest to the roadways exceed 60 CNEL. The local freeways are the dominant noise sources in the Planning Area. Noise contours from the freeways in many cases overlap with and encompass the noise contours from local roadways.

4.13.1.6 March Air Reserve Base Noise Contours

The MARB is a joint-use civilian and military facility located immediately adjacent to the southwestern boundary of the Planning Area. The MARB is bordered by the City to the east/northeast, City of Riverside to the northwest, the City of Perris to the south, and unincorporated Riverside County to the west. Aircraft overflights, takeoffs, and landings at the MARB contribute to the ambient noise environment. The MARB Airport Influence Area (AIA) extends into the Planning Area. Specifically, the MARB Compatibility Zones A, B1, B2, C1, D, and E extend into the City and are shown in Figure 4.13-4: MARB Compatibility Zone Map.

Land uses in the immediate vicinity of the MARB and within the Planning Area generally consist of commercial and industrial uses to the north, open space and residential uses to the northeast, and commercial, industrial, residential, and open space uses to the east. The MARB noise contours are shown in Figure 4.13-5: MARB Noise Contours. The noise contours for the compatibility zones are shown in Figure 4.13-6: MARB Airport Influence Area Noise Contours**.**

Compatibility Zone A is within the 70 and 75 CNEL contour, Zone B1 is within the 65 CNEL contour, Zone B2 is within the 60 CNEL contour, and Zone C1 is within or near the 60 CNEL contour. Compatibility Zone D and Zone E are not located within a noise contour.

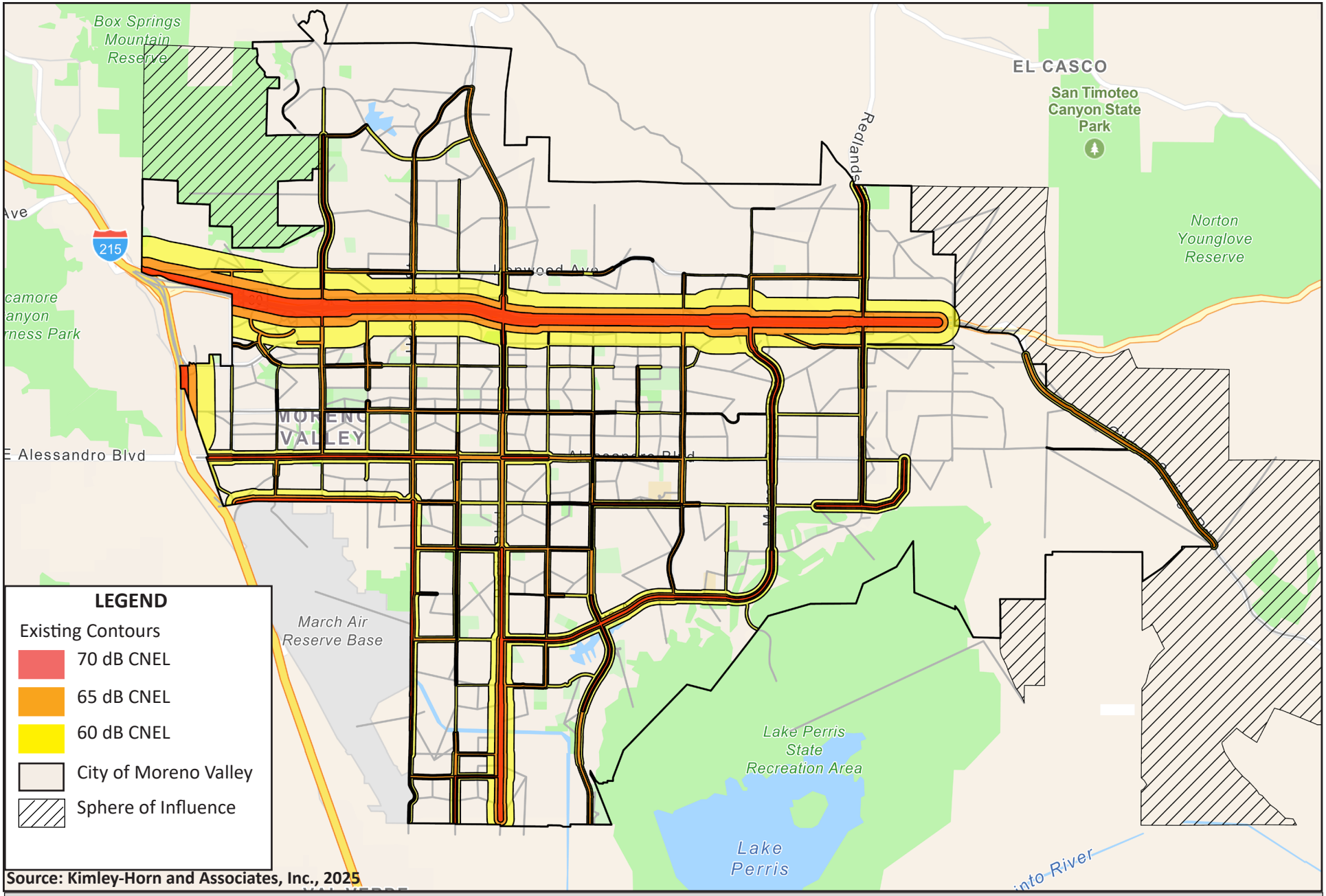
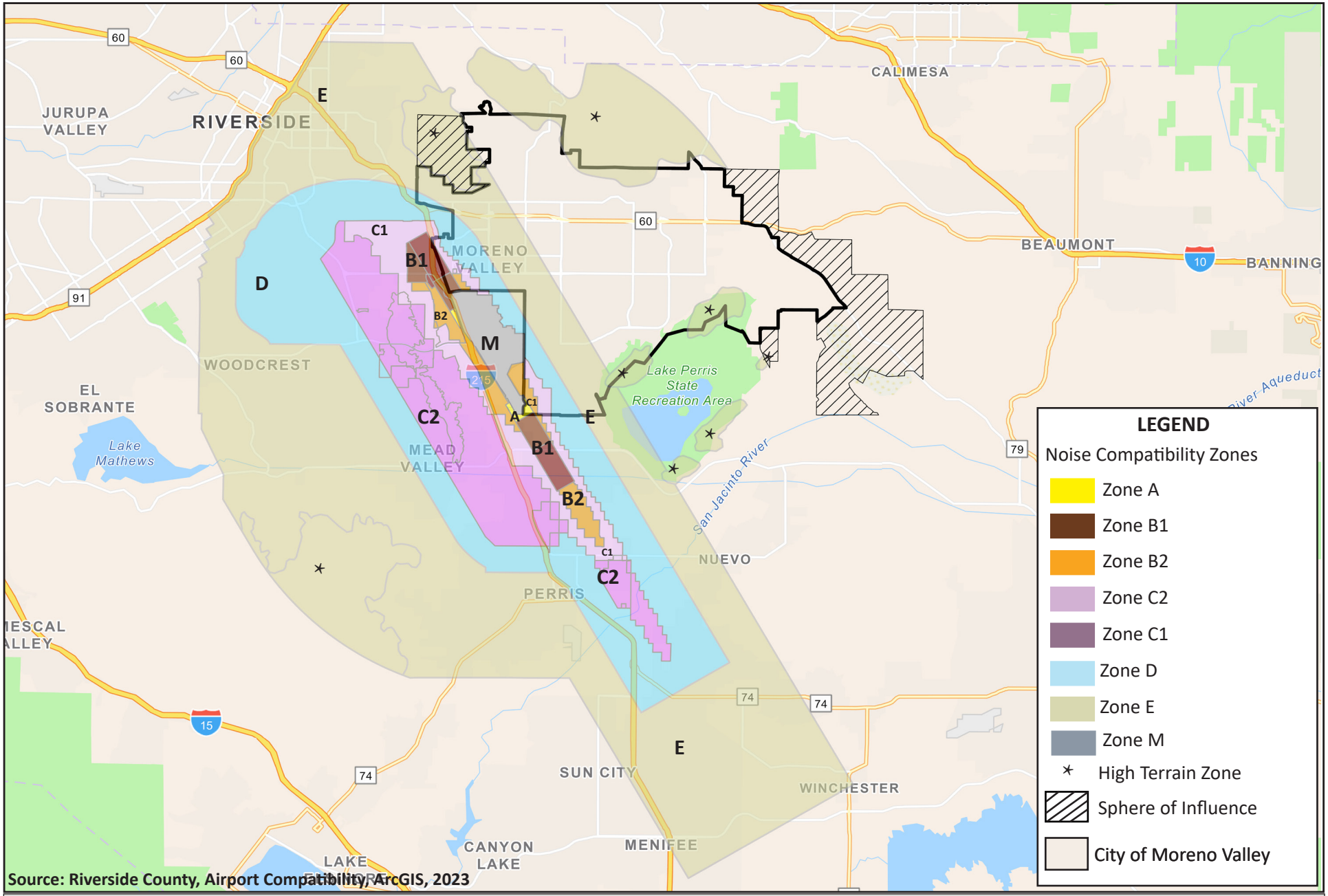


FIGURE 4.13-3: EXISTING TRAFFIC NOISE CONTOURS
MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn



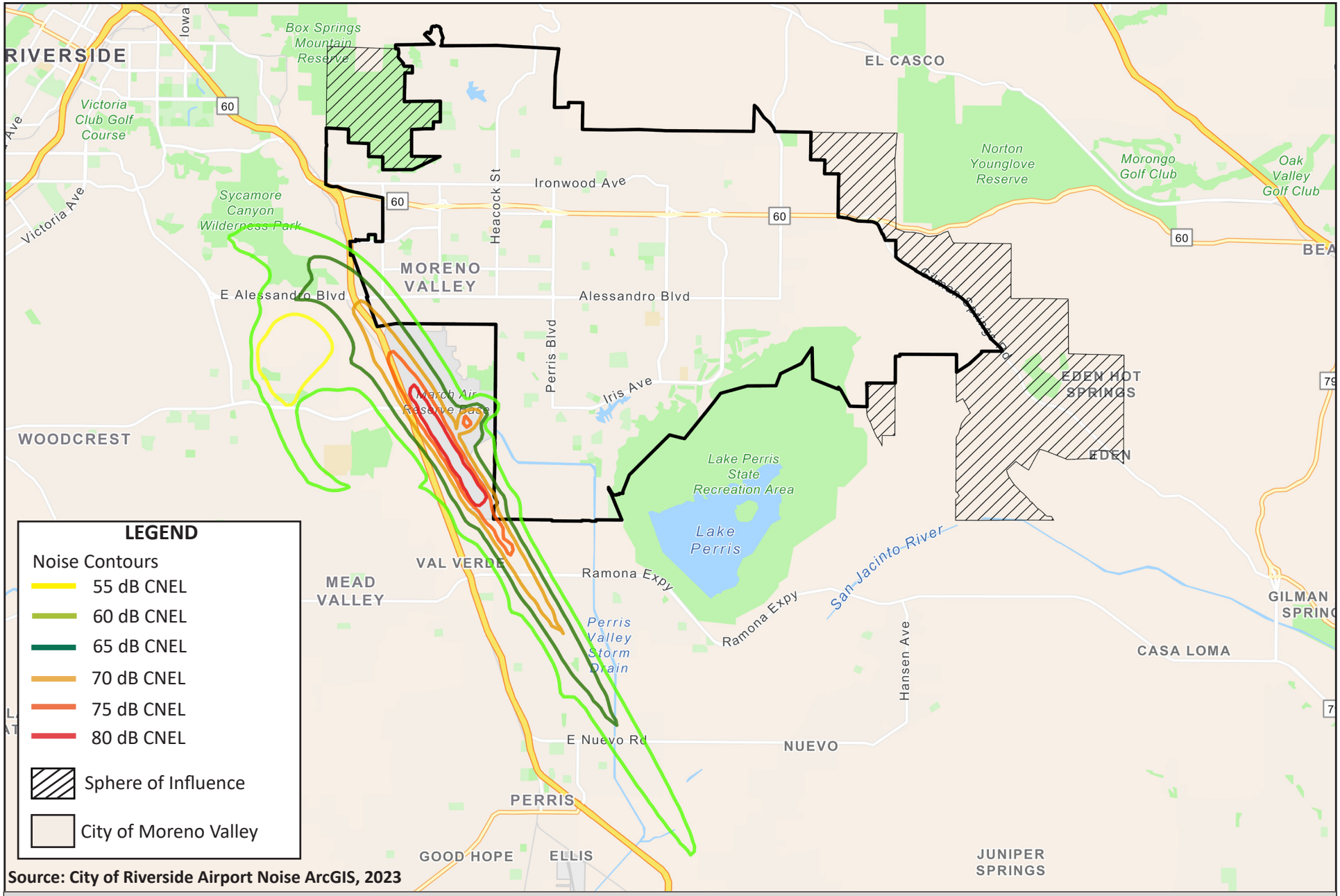
Source: Riverside County, Airport Compatibility, ArcGIS, 2023

FIGURE 4.13-4: MARCH AIR RESERVE BASE COMPATIBILITY ZONE MAP

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn



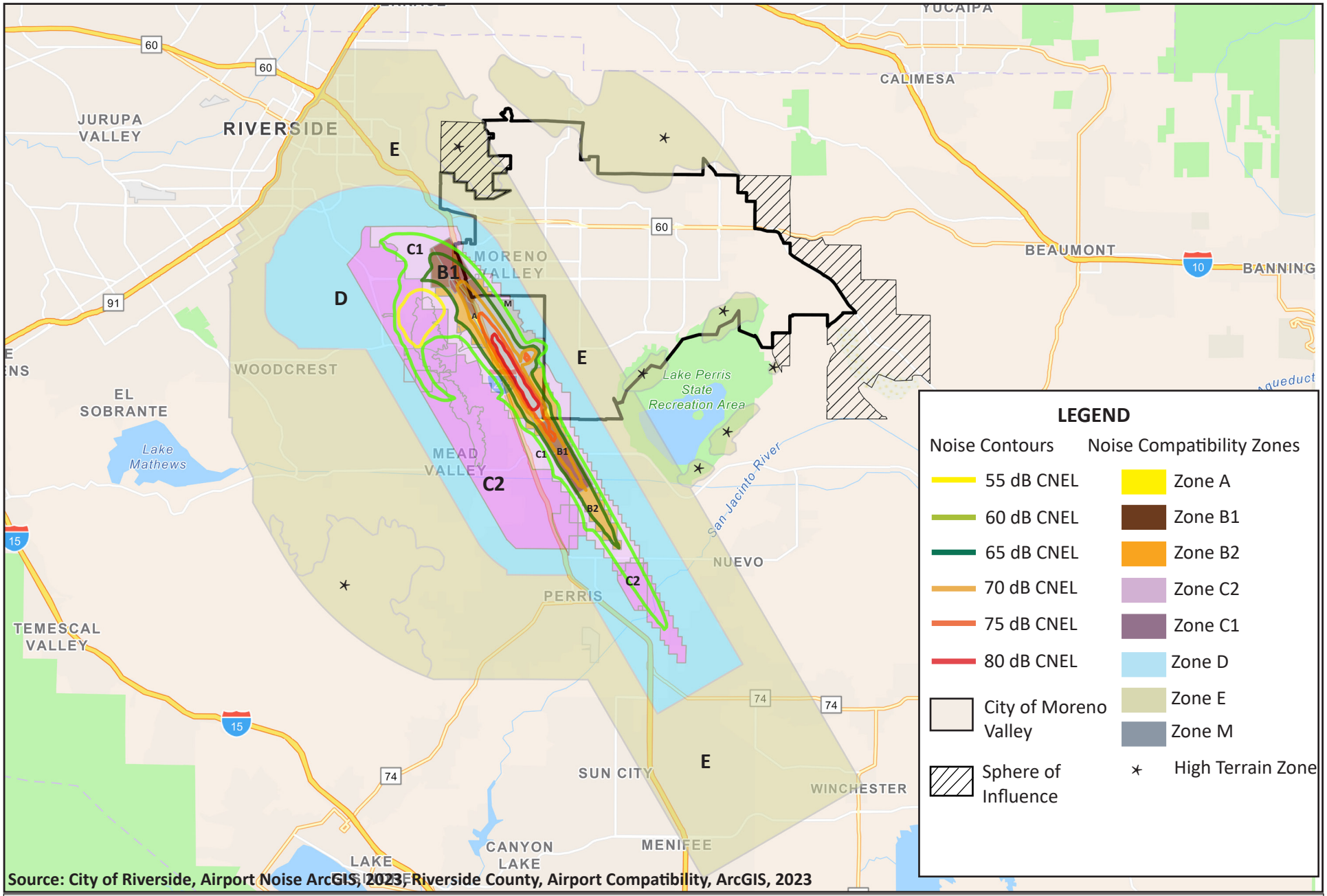
Source: City of Riverside Airport Noise ArcGIS, 2023

FIGURE 4.13-5: MARCH AIR RESERVE BASE NOISE CONTOURS

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn



Source: City of Riverside, Airport Noise ArcGIS, 2023; Riverside County, Airport Compatibility, ArcGIS, 2023

FIGURE 4.13-6: MARCH AIR RESERVE BASE INFLUENCE AREA NOISE CONTOURS

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

4.13.1.7 Railroad Noise

Railroad use produces noise that may disrupt receptors in proximity to railroad tracks. Railroad noise is dependent on several factors: the number of operations per day, the times these operations occur, the numbers of engines and railcars, the average speed, the type of rail (i.e., continuous or bolted), and the presence of "at-grade" crossings that require the engineer to sound a warning horn. An at-grade crossing is where a highway and railroad cross and raises the noise produced by the engines by approximately 10 dB(A). Ten times as many operations could occur if a horn were not sounded to achieve the same 10 dB(A) increase. Trains are required by the Federal Railroad Administration (FRA) to sound a warning horn at one-quarter mile from all at-grade crossings. The warning horn would have a maximum noise level of 110 dB(A) at 100 feet.

The San Jacinto Branch Line (SJBL) follows the I-215 corridor and borders the western edge of the City. The SJBL begins at the BNSF mainline in the City of Perris and ends in the City of San Jacinto. A commuter passenger line (Metrolink) and freight train line travel along the SJBL.

The Metrolink 91/Perris Valley Line is a commuter rail line that stops at the Moreno Valley/March Field Station, located between Eucalyptus Avenue and Cactus Avenue on the western border of the City. The 91/Perris Valley Line has 11 daytime (i.e., 7 a.m. to 10 p.m.) and three nighttime (i.e.,10 p.m. to 7 a.m.) operations that pass through the Moreno Valley/March Field Station.[3] The Federal Transit Administration (FTA) Noise Impact Assessment spreadsheet incorporates the procedures for a General Noise Assessment contained in Section 4.4 of the FTA's guidance manual and allows the user to estimate noise levels from transit sources.[4] Utilizing the FTA Noise Impact Assessment spreadsheet model, the 91/Perris Valley Line would generate noise levels of approximately 62 dB(A) at 50 feet.

Two freight trains pass along the SJBL daily.[5] Assuming that an equal number of operations would occur during the daytime and nighttime, the noise level from total operations on the SJBL would be approximately 71 dB(A) at 50 feet.

4.13.1.8 Stationary Noise

Stationary noise sources are generally restricted within the immediate area of the noise source. The most prominent stationary noise is associated with industrial land uses, located primarily within the southwestern portion (adjacent to the MARB and I-215) and eastern portion (north of the San Jacinto Wildlife Preserve) of the City. Industrial uses may generate noise from mechanical equipment (e.g., heating, ventilation, and air conditioning [HVAC] systems), loading docks, trucks braking and backing-up, and generators, etc. The sound of industrial processes may be readily audible at exterior residential locations in areas where residential land uses abut industrial land uses. Other stationary noise within the Planning

[3] Metrolink, 91/Perris Valley, https://metrolinktrains.com/schedules/?type=line&lineName=91+Line. Accessed January 2025.

[4] Federal Transit Administration, 2018, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

[5] Riverside County Transportation Commission, Perris Valley Line Commuter Rail, March 2010.

Area is associated with commercial, public, and outdoor institutional uses. While these latter stationary noise sources are readily audible at proximate residential locations, they represent the existing setting and are short in duration.

4.13.1.9 Vibration

The primary existing vibration sources in the Planning Area are truck traffic and rail operations. Perceptible vibration levels can be caused by heavy trucks hitting discontinuities in the pavement from gaps and potholes. However, under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way. The screening distance for vibration from freight train operations is 600 feet from the centerline. Rail operations in the SJBL consist of two daily freight trains. A pass-by event from a 25-car train at 20 miles per hour would last less than one minute; therefore, train pass-bys would have the potential to generate perceptible vibration levels at receptors within 600 feet of the railroad track for a few seconds, twice a day. According to vibration measurements taken at the Perris Valley Line just north of the SJBL, vibration levels did not exceed the FTA thresholds for annoyance for residential uses for receptors beyond 100 feet from the tracks.[6]

Industrial operations can generate varying degrees of groundborne vibration from the use of heavy-duty equipment. As stated above, industrial uses are primarily located to the southwestern and eastern portion of the City. The vibration from industrial operations generally remains within the immediate vicinity and quickly dissipates into the surrounding soil.

4.13.2 Applicable Regulatory Requirements

To limit population exposure to physically or psychologically damaging, as well as intrusive, noise levels, the Federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

4.13.2.1 Federal

a. Noise

The Noise Control Act of 1972 recognized the role of the federal government in dealing with major commercial noise sources that require uniform treatment. Since Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The federal government specifically preempts local control of noise from aircraft, railroads, and interstate highways.

[6] Riverside County Transportation Commission, Perris Valley Line Commuter Rail, March 2010.

The FTA provides financial, safety, and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys and ferries. The FTA's Transit Noise and Vibration Impact Assessment Manual indicates that 80 dB(A) L_{eq} is a reasonable criterion for assessing construction noise levels at residential uses.[7]

The U.S. Department of Housing and Urban Development (HUD) sets the maximum exterior standard for residential units developed with HUD funding at 65 dB(A) L_{dn}. While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provide in excess of 20 dB(A) of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dB(A).

b. Vibration

The FTA provides criteria for acceptable levels of groundborne vibration for various types of buildings (see Table 4.13-1) and for land uses near railroads (shown in Table 4.13-3).

Table 4.13-3
Guidelines for Determining the Significance of Ground-borne Vibration and Noise Impacts

Land Use Category	Ground-borne Vibration Impact Levels (VdB re 1 micro-inch per second)			Groundborne Noise Impact Levels (dB re 20 micro Pascals)		
	Frequent Events	Occasional Events	Infrequent Events	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where low ambient vibration is essential for interior operations (research & manufacturing facilities with special vibration constraints)[6]	65 VdB	65 VdB	65 VdB	N/A	N/A	N/A
Category 2: Residences and buildings where people normally sleep (hotels, hospitals, residences, & other sleeping facilities)[6]	72 VdB	75 VdB	80 VdB	35 dB(A)	38 dB(A)	43 dB(A)
Category 3: Institutional land uses with primarily daytime use (schools, churches, libraries, other institutions, & quiet offices)[6]	75 VdB	78 VdB	83 VdB	40 dB(A)	43 dB(A)	48 dB(A)

SOURCE: FTA 2018.
VdB = vibration decibel; re = relative; N/A = not applicable
"Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
"Occasional Events" is defined as 30 to 70 vibration events per day. Most commuter trunk links fall into this category
"Infrequent Events" is defined as fewer than 30 vibration events per day. This category includes most commuter rail systems.

For Category 1 uses such as vibration sensitive equipment, the screening distance from the right-of-way is 600 feet. For Category 2 land uses such as residences and buildings where

[7] Federal Transit Administration (FTA), 2018, *Transit Noise and Vibration Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018.

people would normally sleep, the screening distance is 200 feet. The screening distance for Category 3 land uses such as institutional land uses with primarily daytime uses, is 120 feet.

4.13.2.2 State

a. General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels, expressed in CNEL (Governor's Office of Planning and Research 2017). This table provides a tool to gauge the compatibility of land uses relative to existing and future noise levels. It provides land use compatibility guidelines that local jurisdictions can use as a guide for establishing their own General Plan noise compatibility levels that reflect the noise-control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The compatibility guidelines identify normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. A conditionally acceptable designation implies new construction or development should be undertaken only after detailed analysis of the noise reduction requirements for each land use, and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

b. Government Code, Section 65302(f)

Government Code, Section 65302(f), requires that every city and every county prepare a noise element as a mandatory component of its required general plan. It may include general community noise guidelines developed by the California Department of Health Services and specific planning guidelines for noise/land use compatibility developed by the local jurisdiction. The state guidelines also recommend that the local jurisdiction consider adopting a local noise control ordinance. The California Department of Health Services developed guidelines for community noise acceptability for use by local agencies. Selected relevant levels are as follows:

- CNEL below 60 dB(A) – normally acceptable for low-density residential use
- CNEL of 55 dB(A) to 70 dB(A) – conditionally acceptable for low-density residential use
- CNEL below 65 dB(A) – normally acceptable for high-density residential use
- CNEL of 60 to 70 dB(A) – conditionally acceptable for high-density residential use, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dB(A) – normally acceptable for playgrounds and neighborhood parks

"Normally acceptable" is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. "Conditionally acceptable" may require some additional noise attenuation or special study. Under most of these land use

categories, overlapping ranges of acceptability and conditionally acceptable are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

c. California Building Code

The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1206.4, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate a composite sound transmission class rating of at least 50. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dB(A) L_{eq} in occupied areas during any hour of operation.

d. Aircraft Noise Standards

Public Utilities Code (PUC) Section 21676(b) requires that prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the AIA established by the Airport Land Use Commission (ALUC), the local agency shall first refer the proposed action to the ALUC. If the ALUC determines that the proposed action is inconsistent with the Airport Land Use Compatibility Plan (ALUCP), the referring agency shall be notified. Consistency with the ALUCP is based on consistency with noise and safety standards. The local agency may, after a public hearing, overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes stated in PUC Section 21670.

e. Industrial Siting Standards

AB 98, signed into law by Governor Newson on September 28, 2024, adds various design and build standards to new or expanded "logistics uses" (a building where cargo, goods, or products are moved or stored for distribution, and heavy-duty trucks are primarily involved in the transport of these cargo, goods, or products). The bill exempts uses that serve retail customers for onsite purchases and buildings primarily served by rail. The bill's design and build standards depend on whether a new or expanded logistics use is within 900 feet of a sensitive receptor, whether a zone change is required, and whether the logistics use is within the "warehouse concentration region" (the Counties of Riverside and San Bernardino and the Cities of Chino, Colton, Fontana, Jurupa Valley, Moreno Valley, Ontario, Perris, Rancho Cucamonga, Redlands, Rialto, Riverside, and San Bernardino).

These standards include buffering, screening, and siting standards, and depending on the site's location and building location may also require additional medium- and heavy-duty truck charging or charging readiness beyond CALGreen requirements, electric forklifts, photovoltaic energy generation and battery storage, etc.

4.13.2.3 Riverside County Airport Land Use Commission

As described in Section 4.13.1.6 above, the MARB is located immediately adjacent to the southwestern boundary of the Planning Area. The Riverside County ALUC has prepared the ALUCP in order to promote compatibility between airports and the land uses surrounding them. ALUCPs set compatibility criteria applicable to local agencies in their preparation or amendment of land use plans and ordinances. The Riverside County ALUCP was adopted in 2004, and provides general guidelines applicable to all airports under Riverside County ALUC jurisdiction.[8] The MARB/Inland Port Airport (IPA) ALUCP was adopted in 2014 and provides guidelines specific to the MARB.[9] The MARB/IPA ALUCP provides the following noise guidelines for the MARB:

a. Countywide Policy 4.1.5: The CNEL considered normally acceptable for new residential land uses in the vicinity of the MARB/IPA is 65 dB.

b. Countywide Policy 4.1.6: Single-event noise levels from aircraft operations can be particularly intrusive at night. Compared to other airports in the county, current and projected nighttime activity by large aircraft at the MARB/IPA warrants a greater degree of sound attenuation for the interiors of buildings housing certain uses as cited below.

    1. The maximum, aircraft-related, interior noise level that shall be considered acceptable shall be CNEL 40 dB for all new residences, schools, libraries, museums, hotels and motels, hospitals and nursing homes, places of worship, and other noise-sensitive uses. For office uses, the interior standard shall be CNEL 45 dB, the same as the countywide criterion.

    2. To ensure compliance with these criteria, an acoustical study shall be required to be completed for any development proposed to be situated where the aviation-related noise exposure is more than 20 dB above the interior standard (e.g., within the CNEL 60 dB contour where the interior standard is CNEL 40 dB). Standard building construction is presumed to provide adequate sound attenuation where the difference between the exterior noise exposure and the interior standard is 20 dB or less.

[8] Riverside County Airport Land Use Compatibility Plan, 2004, Volume 1 Policy Document. Adopted by Riverside County Airport Land Use Commission October 14, 2004

[9] March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Adopted by Riverside County Airport Land Use Commission November 13, 2014

Furthermore, future developments under the following circumstances must show evidence to the Riverside County ALUC that the design plans would comply with the above criteria under the following circumstances:

- Mobile homes situated within an airport's 55 dB CNEL contour. A typical mobile home has an average exterior-to-interior noise level reduction of approximately 15 dB with windows closed.
- Single- or multi-family residence situated within an airport's 60 dB CNEL contour. Standard building construction is presumed to provide adequate sound attenuation where the noise level reduction is approximately 20 dB or less.
- Hotel, motel, hospital, nursing home, church, meeting hall, office building, mortuary, school, library, or museum situated within an airport's 65 dB CNEL contour.

4.13.2.4 City of Moreno Valley

a. Municipal Code

The City regulates noise through the Municipal Code under Title 8: Buildings and Construction, Chapter 8.14: General and Title 11: Peace, Morals and Safety, Chapter 11.80: Noise Regulation.

Operational Noise

The City regulates noise through the Municipal Code under Title 11 Peace, Morals and Safety, Chapter 11.80, Noise Regulation. Tables 4.13-4 and 4.13-5 summarize the maximum continuous and maximum impulsive noise level limits specified in Section 11.80.030(B)(1) of the Municipal Code.

Table 4.13-4
Maximum Continuous Sound Levels

Duration per Day Continuous Hours	Sound Level Limit [dB(A) L_{eq}]
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5.	110
0.2.5	115

dB(A) = A-weighted decibels.
L_{eq} = one-hour equivalent noise level.

Table 4.13-5 Maximum Impulsive Sound Levels	
Number of Repetitions per 24-Hour Period	Sound Level Limit [dB(A) L_{eq}]
1	145
10	135
100	125
dB(A) = A-weighted decibels. L_{eq} = one-hour equivalent noise level.	

Section 11.80.030(C) provides noise level limits for non-impulsive noise. The section states "No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any non-impulsive sound which exceeds the limits set forth for the source land use category in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property." The sound level limits provided in Table 11.80.030-2 of the Municipal Code are summarized in Table 4.13-6.

Table 4.13-6 Maximum Sound Levels for Source Land Uses [dB(A) L_{eq}]			
Residential		Commercial	
Daytime	Nighttime	Daytime	Nighttime
60	55	65	60
dB(A) = A-weighted decibels. L_{eq} = one-hour equivalent noise level.			

Construction Noise

The Municipal Code limits construction activities in two parts of the Code: Sections 8.14.040(E) and 11.80.030(D)(7). Section 8.14.040(E) states that construction within the City shall only occur from 7:00 a.m. to 7:00 p.m. from Monday through Friday excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturdays. Section 11.80.030(D)(7) states that no person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 8:00 p.m. and 7:00 a.m. such that the sound creates a noise disturbance. For power tools, specifically, Section 11.80.030(D)(9) states that no person shall operate or permit the operation of any mechanically, electrically or gasoline motor-driven tool during nighttime hours that causes a noise disturbance across a residential property line. A noise disturbance is defined as any sound that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible (as measured at a distance of 200 feet from the property line of the source of the sound if the sound occurs on privately owned property, or public right-of-way, public space, or other publicly owned property).

Airport Noise

Section 9.07.060 (Airport Land Use Compatibility Plan) minimizes noise associated with airport operations by reinforcing the PUC and Riverside ALCUP regulations.

Vibration

The Municipal Code does not establish quantified limits for vibration levels. Section 9.10.170 states that "No vibration shall be permitted which can be felt at or beyond the property line."

4.13.3 Methodologies for Determining Impacts

4.13.3.1 Vehicle Traffic Noise

Traffic noise occurs adjacent to every roadway and is directly related to the traffic volume, speed, and mix of vehicles. Existing and future traffic volumes and truck percentages for each roadway segment in the Planning Area were obtained from traffic data provided by Kimley-Horn (January 2025) and speed data is based on the posted speed limits. The FHWA-RD-77-108 model was used to calculate the noise level at 50 feet from the roadway centerline and the distances to noise contours along each roadway. Noise impacts were determined by comparing the change in noise levels between the existing condition and buildout of the 2024 GPU to the significance criterion listed below.

Long-term traffic noise would constitute a significant noise impact if the 2024 GPU would:

1. Increase noise levels by 5 dB or more where the "no project" noise level is less than 60 CNEL;

2. Increase noise levels by 3 dB or more where the "no project" noise level is 60 CNEL to 65 CNEL; or

3. Increase noise levels by 1.5 dB or more where the "no project" noise level is greater than 65 CNEL.

The analysis of the noise environment considered that the topography was flat with no intervening terrain between sensitive land uses and roadways. Because modeled predicted noise levels do not account for obstructions, they are higher than those which would actually occur. In actuality, buildings and other obstructions along the roadways would shield distant receivers from the traffic noise. Existing and future vehicle traffic noise calculations are provided in Appendix D.

4.13.3.2 Railroad Noise

As stated under Section 4.13.1.7, the railroad noise was modeled using the FTA Noise Impact Assessment spreadsheet.[10] The railroad noise was evaluated against the thresholds in Table 4.13-3.

[10] Federal Transit Administration, 2018, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

4.13.3.3 Stationary Noise

Stationary sources of noise include activities associated with a given land use. The Planning Area includes multiple land uses, including residential, commercial, industrial, and mixed-use land uses. Various land uses contain on-site stationary noise sources, including rooftop HVAC equipment; mechanical equipment; emergency electrical generators; parking lot activities; loading dock operations; and recreation activities. Stationary noise is considered a "point source" and attenuates over distance at a rate of 6 dB(A) for each doubling of distance. The exact location and nature of future stationary noise sources is not known at this time, and therefore cannot be calculated in this analysis. Impacts were assessed in this analysis by identifying potential types of stationary sources and locations of mixed-use land use interfaces and identifying applicable regulations and mitigation framework for addressing impacts.

4.13.3.4 Construction Noise

Construction noise levels were based on typical noise levels generated by construction equipment published by the FTA and the FHWA. Construction noise is assessed in dB(A) L_{eq}. This unit is appropriate because L_{eq} can be used to describe noise level from operation of each piece of equipment separately, and levels can be combined to represent the noise level from all equipment operating during a given period.

Reference noise levels are used to estimate construction equipment noise based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Since the exact location and nature of future development is not known at this time, the future noise level from construction was analyzed qualitatively.

4.13.3.5 Vibration

Groundborne vibration levels associated with construction activities for the 2024 GPU were evaluated utilizing FTA published ground-borne vibration levels associated with construction equipment. Since the City currently does not have a quantified significance threshold to assess vibration impacts, potential ground-borne vibration impacts related to building/structure damage and human annoyance were evaluated considering the FTA criterion of 0.02 in/sec for buildings and Caltrans criterion of 0.04 in/sec for human annoyance (shown in Table 4.13-1). Vibration impacts due to railroad operations were evaluated using the FTA criteria shown in Table 4.13-3. Vibration impacts due to stationary sources were addressed qualitatively. Since the exact location and nature of future development is not known at this time, the future ground-borne vibration from construction, railroad tracks, and stationary sources were conservatively analyzed.

4.13.4 Basis for Determining Significance

Thresholds used to evaluate noise impacts are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Generate 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;

2) Generate excessive groundborne vibration or groundborne noise levels; or

3) 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, expose people residing or working in the project area to excessive noise levels.

4.13.5 Impact Analysis

4.13.5.1 Topic 1: Increase in Ambient Noise

Would the project generate 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?

General Plan

The 2024 GPU Noise Element provides noise compatibility guidelines. Table 4.13-7: Land Use Community Noise Compatibility summarizes the 2024 GPU noise compatibility guidelines provided in Table N-1 of the Noise Element.

Table 4.13-7
Land Use Community Noise Compatibility

Land Use Category	Community Noise Equivalent Level (CNEL)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential - Low Density Single Family, Duplex, Mobile Homes	50 - 65	65 - 70	70 - 75	75 - 85
Residential - Multiple Family	50 - 65	65 - 70	70 - 75	75 - 85
Transient Lodging - Motels, Hotels	50 - 65	65 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	-	70 - 80	80 - 85

Table 4.13-7
Land Use Community Noise Compatibility

Land Use Category	Community Noise Equivalent Level (CNEL)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Auditoriums, Concert Halls, Amphitheaters	-	50 - 70	70 - 85	-
Sports Arena, Outdoor Spectator Sports	-	50 - 75	75 - 85	-
Playgrounds, Neighborhood Parks	50 - 70	70 - 75	75 - 85	-
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	-	75 - 80	80 - 85
Office Buildings, Businesses, Commercial, and Professional	50 - 70	70 - 77	77 - 85	-
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	75 - 80	80 - 85	-

SOURCE: City of Moreno Valley, *MoVal 2040 General Plan, Chapter 7: Noise, Table N-1: Community Noise Compatibility Matrix*, 2024.

1. Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements
2. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
3. New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
4. New construction or development generally should not be undertaken.

The 2024 GPU Noise Element contains the following goals, policies, and actions that are intended to address ambient noise.

Goal

N-1: Design for a pleasant, healthy sound environment conducive to living and working.

Policies

N.1-1: Protect occupants of existing and new buildings from exposure to excessive noise, particularly adjacent to freeways, major roadways, the railroad, and within areas of aircraft overflight.

N.1-2: Guide the location and design of transportation facilities, industrial uses, and other potential noise generators to minimize the effects of noise on adjacent land uses.

N.1-3: Apply the community noise compatibility standards (Table N-1) to all new development and major redevelopment projects outside the noise and safety compatibility zones established in the March Air Reserve Base/Inland Port Airport Land Use Compatibility (ALUC) Plan in order to protect against the adverse effects of noise exposure. Projects within the noise and safety compatibility zones are subject to the standards contained in the ALUC Plan.

N.1-4: Require a noise study and/or mitigation measures if applicable for all projects that would expose people to noise levels greater than the "normally acceptable" standard and for any other projects that are likely to generate noise in excess of these standards.

N.1-5: Noise impacts should be controlled at the noise source where feasible, as opposed to at receptor end with measures to buffer, dampen, or actively cancel noise sources. Site design, building orientation, building design, hours of operation, and other techniques, for new developments deemed to be noise generators shall be used to control noise sources.

N.1-6: Require noise buffering, dampening, or active cancellation, on rooftop or other outdoor mechanical equipment located near residences, parks, and other noise sensitive land uses.

N.1-7: Developers shall reduce the noise impacts on new development through appropriate means (e.g. double-paned or soundproof windows, setbacks, berming, and screening). Noise attenuation methods should avoid the use of visible sound walls where possible.

Actions

N.1-A: Continue to review proposed projects for conformance with the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, including consideration of the Compatibility Zone Factors shown in Table MA-1 and the Basic Compatibility Criteria shown in Table MA-2, as may be amended.

N.1-B: Require dedication of an aviation easement as a condition of development approval for projects within the noise and safety compatibility zones identified by the march Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, as may be amended. The intention of this action is to alert interested individuals, including property buyers and developers, to the proximity of aircraft operations and related noise and safety compatibility protections.

N.1-C: Study the feasibility of using alternative pavement materials such as rubberized asphalt pavements on roadways to reduce noise generation. Update City standards as appropriate.

Goal

N-2: Ensure that noise does not have a substantial, adverse effect on the quality of life in the community.

Policies

N.2-1: Use the development review process to proactively identify and address potential noise compatibility issues.

N.2-2: Continue to work with community members and business owners to address noise complaints and ensure voluntary resolution of issues through the enforcement of Municipal Code provisions.

N.2-3: Limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the Municipal Code that address allowed days and hours of construction, types of work, construction equipment, and sound attenuation devices.

N.2-4: Collaborate with the March Joint Powers Authority, March Inland Port Airport Authority, Riverside County Airport Land Use Commission, and other responsible agencies to formulate and apply strategies to address noise and safety compatibility protection from airport operations.

N.2-5: Encourage residential development heavily impacted by aircraft-related noise to transition to uses that are more compatible.

Actions

N.2-A: Continue to maintain performance standards in the Municipal Code to ensure that noise generated by proposed projects is compatible with surrounding land uses.

N.2-B: Update the Municipal Code to establish controls on outdoor noise in public places, such as outdoor dining terraces in commercial mixed use areas, public plazas, or parks. Controls may include limits on noise levels or hours of operation.

a. Traffic Noise

Increase in Ambient Noise

Long-term traffic noise that affects sensitive land uses would be considered substantial and constitute a significant noise impact if the 2024 GPU would:

- Increase noise levels by 5 dB or more where the "no project" noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the "no project" noise level is 60 CNEL to 65 CNEL; or

- Increase noise levels by 1.5 dB or more where the "no project" noise level is greater than 65 CNEL.

The noise analysis is based on the baseline (2024) and future (2040) traffic volume data. The analysis includes 405 roadway segments located within the Planning Area. The change in noise level was calculated for all 405 roadway segments, including I-215 and SR 60, for buildout of the 2024 GPU. Noise impacts were determined by comparing the change in noise levels between the existing condition and buildout of the 2024 GPU to the criteria listed above.

Based on the impact criteria above, 2024 GPU buildout would result in a significant noise increase over existing ambient noise levels at noise sensitive receptors adjacent to 198 of the analyzed roadway segments and at noise sensitive receptors adjacent to 5 of the analyzed freeway segments. The impacted segments are summarized in Table 4.13-8: Roadway Segments with Potentially Significant Traffic Noise Increases. Complete calculations for all roadways segments are included in Appendix D.

As indicated in Table 4.13-8**,** existing traffic noise levels along roadway segments with the potential for significant increase in noise range between 38.6 CNEL and 83.6 CNEL calculated at 50 feet from the roadway center, with the highest noise levels occurring along I-215 between SR 60 and Eastridge Avenue.

The 2024 GPU contains policies to minimize the potential noise sources and impacts generated by vehicular traffic on existing roadways. Policies include considering the compatibility of proposed land uses with the noise environment, requiring mitigation where sensitive uses are to be placed along transportation routes to ensure that noise levels are minimized, encouraging the proper site planning and architecture to reduce noise impacts, and employing noise mitigation practices when designing future streets and highways.

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Alessandro Blvd	Old 215 Frontage Rd to Day St	24,358	74.2	50,322	78.0	3.8
Alessandro Blvd	Day St to Elsworth St	21,471	73.1	46,534	77.1	4.0
Alessandro Blvd	Elsworth St to Courage St	25,098	73.9	46,296	77.1	3.2
Alessandro Blvd	Courage St to Frederick St	23,834	73.3	44,354	76.6	3.3
Alessandro Blvd	Frederick St to Graham St	28,099	73.5	42,360	75.3	1.8
Alessandro Blvd	Graham St to Heacock St	24,439	72.8	40,538	74.8	2.0
Alessandro Blvd	Heacock St to Indian St	31,227	73.5	43,435	75.0	1.6
Alessandro Blvd	Indian St to Perris Blvd	19,834	71.4	40,941	74.8	3.4
Alessandro Blvd	Perris Blvd to Flaming Arrow Dr	26,472	73.5	45,197	76.2	2.7
Alessandro Blvd	Flaming Arrow Dr to Kitching St	24,299	73.1	48,325	76.5	3.4
Alessandro Blvd	Kitching St to Chara St	12,285	69.7	46,639	75.9	6.3
Alessandro Blvd	Chara St to Lasselle St	12,285	69.7	44,923	75.8	6.1
Alessandro Blvd	Lasselle St to Darwin Dr	6,414	66.8	44,770	75.7	8.9

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Alessandro Blvd	Darwin Dr to Morrison St	6,414	66.5	44,075	75.3	8.8
Alessandro Blvd	Morrison St to Country Squire Dr	7,981	67.0	40,728	75.0	8.0
Alessandro Blvd	Country Squire Dr to Nason St	7,981	67.4	32,634	74.4	7.0
Alessandro Blvd	Nason St to Marian Rd	4,456	63.3	15,841	69.8	6.6
Alessandro Blvd	Marian Dr to Moreno Beach Dr	3,808	63.0	14,560	70.1	7.1
Alessandro Blvd	Moreno Beach Dr to Walnut Ct	2,159	57.6	6,312	65.1	7.6
Alessandro Blvd	Walnut Ct to Redlands Blvd	1,203	55.3	4,525	64.7	9.4
Alessandro Blvd	World Logistics Center Pkwy to Virginia St	1,320	59.0	11,114	72.0	13.0
Alessandro Blvd	Virginia St to Gilman Springs Rd	1,320	58.6	6,133	67.7	9.1
Box Springs Rd	West of Douglas Ct	12,762	68.8	19,366	70.5	1.6
Box Springs Rd	Douglas Ct to Clark St	12,762	68.8	19,366	70.5	1.6
Box Springs Rd	Clark St to Pine Cone Ln	12,762	67.7	19,366	69.3	1.6
Box Springs Rd	Pine Cone Ln to Day St	16,961	68.4	25,894	70.3	1.9
Cactus Ave	Gilbert St to Heacock St	9,765	71.0	41,981	75.6	4.6
Cactus Ave	Heacock St to Unity Ct	11,245	66.9	24,263	70.2	3.3
Cactus Ave	Unity Ct to Indian St	11,245	66.9	21,952	69.6	2.7
Cactus Ave	Indian St to Philo St	8,108	64.9	19,199	68.8	3.9
Cactus Ave	Philo St to Perris Blvd	7,157	64.3	19,399	68.8	4.5
Cactus Ave	Perris Blvd to Agave St	8,442	63.8	16,667	67.0	3.2
Cactus Ave	Agave St to Kitching St	7,137	62.8	14,836	66.3	3.6
Cactus Ave	Lasselle St to Nason St	20,154	69.9	27,183	71.5	1.6
Cactus Ave	Nason St to Wildmill Ln	11,036	66.9	33,343	72.0	5.1
Cactus Ave	Windmill Ln to Oliver St	3,738	62.5	16,011	69.6	7.2
Cactus Ave	Oliver St to Moreno Beach Dr	4,153	63.3	20,509	70.9	7.6
Cactus Ave	Moreno Beach Dr to Quincy St	4,674	63.3	21,443	70.9	7.6
Cottonwood Ave	Edgemont St to Day St	713	52.3	2,172	59.3	7.0
Cottonwood Ave	Elsworth St to Pan Am Blvd	4,089	59.7	3,730	64.9	5.2
Cottonwood Ave	Fredrick St to Dunhill Dr	11,915	65.2	10,867	69.1	3.9
Cottonwood Ave	Dunhill Dr to Graham St	11,915	65.2	10,400	68.8	3.6
Cottonwood Ave	Lasselle St to Burney Pass Dr	8,068	64.0	16,106	67.2	3.3
Cottonwood Ave	Burney Pass Dr to Morrison St	5,246	62.2	14,329	67.8	5.7
Cottonwood Ave	Nason St to Oliver St	2,241	58.8	6,381	69.1	10.3
Cottonwood Ave	Oliver St to Moreno Beach Dr	2,241	58.8	5,355	68.3	9.5
Cottonwood Ave	Moreno Beach Dr to Redlands Blvd	3,161	62.9	11,148	70.8	7.9
Day St	Box Springs Rd to SR 60	17,945	67.7	19,911	74.0	6.3
Day St	SR 60 to Ramp	27,427	70.6	28,585	75.2	4.6
Dracaea Ave	Kitching St to Pepperbush Dr	1,570	53.8	1,992	77.0	23.2
Dracaea Ave	Pepperbush Dr to Lasselle St	816	50.6	576	62.6	12.1
Elsworth St	Eucalyptus Ave to Dracaea Ave	3,525	60.8	5,914	64.5	3.8
Elsworth St	Ella Ave to Bay Ave	3,820	59.8	6,182	71.0	11.2
Elsworth St	Bay Ave to Alessandro Blvd	3,820	59.8	6,117	67.3	7.5
Elsworth St	Business Center Dr to Goldencrest Dr	6,286	65.6	11,443	68.2	2.6
Elsworth St	Goldencrest Dr to Cactus Ave	6,286	66.0	11,443	68.0	2.0

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Eucalyptus Ave	Carnaby St to Elsworth St	12,735	67.4	13,854	69.7	2.3
Eucalyptus Ave	Elsworth St to Frederick St	6,757	64.5	11,923	69.2	4.7
Eucalyptus Ave	Frederick St to Kochi Dr	9,346	65.1	23,988	69.6	4.4
Eucalyptus Ave	Kochi Dr to Graham St	11,132	65.8	20,903	69.6	3.8
Eucalyptus Ave	Sunbird Dr to Running Deer Rd	5,172	62.6	22,360	66.3	3.7
Eucalyptus Ave	Running Deer Rd to Heacock St	5,172	62.6	17,234	65.9	3.2
Eucalyptus Ave	Liberty Ln to Indian St	7,561	62.6	15,254	66.4	3.9
Eucalyptus Ave	Indian St to Perris Blvd	4,375	60.0	13,193	66.2	6.3
Eucalyptus Ave	Perris Blvd to Foreman Ave	5,015	60.7	17,314	67.2	6.6
Eucalyptus Ave	Foreman Ave to Kitching St	173	49.2	15,884	67.1	18.0
Eucalyptus Ave	Kitching St to Raenette Way	5,513	61.5	19,398	65.1	3.6
Eucalyptus Ave	Raenette Way to Lasselle St	4,611	60.7	18,817	63.8	3.1
Eucalyptus Ave	Barbazon Dr to Morrison St	3,616	59.7	8,686	65.5	5.8
Eucalyptus Ave	Cheyenne St to Nason St	28	38.6	12,014	60.3	21.7
Eucalyptus Ave	Auto Mall Pkwy to Auto Mall Dr	126	47.9	104	61.6	13.7
Eucalyptus Ave	B St to Redlands Blvd	11,994	66.0	1,978	73.2	7.2
Eucalyptus Ave	Redlands Blvd to World Logistics Cir Pkwy	2,419	64.7	1,954	69.7	5.0
Frederick St	Alessandro Blvd to Brodiaea Ave	2,317	60.0	4,227	67.0	6.9
Frederick St	Brodiaea Ave to Cactus Ave	2,495	61.5	3,325	67.6	6.1
Gentian Ave	Canyonstone Dr to Indian St	557	55.5	7,113	65.5	10.0
Gentian Ave	Perris Blvd to Patricia St	1,647	57.4	9,918	69.0	11.6
Gentian Ave	Patricia Ln to Kitching St	1,647	57.4	11,158	66.1	8.7
Gentian Ave	Kitching St to Casa Grarde St	10,187	66.1	19,402	78.3	12.3
Gentian Ave	Casa Grarde St to Lasselle St	7,365	64.0	10,911	78.5	14.6
Gilman Springs Rd	SR 60 to Eucalyptus Ave	9,732	69.7	28,876	72.9	3.1
Gilman Springs Rd	South of Alessandro Blvd	9,732	68.7	21,541	71.0	2.3
Graham St	Sunnymead Blvd to Old Valley Dr	9,732	67.1	25,830	71.4	4.3
Graham St	Old Valley Dr to Eucalyptus Ave	12,458	67.7	27,781	71.4	3.7
Graham St	Eucalptus Ave to Dracaea Ave	13,555	67.7	29,192	71.2	3.6
Graham St	Dracaea Ave to Sunline Dr	1,704	57.6	29,133	70.4	12.8
Graham St	Sunline Dr to Cottonwood Ave	12,027	67.2	27,766	71.1	3.8
Graham St	Cottonwood Ave to Bay Ave	6,726	64.7	22,726	71.1	6.5
Graham St	Bay Ave to Alessandro Blvd	6,726	64.7	27,237	70.3	5.6
Graham St	Brodiaea Ave to Cactus Ave	1,373	58.5	20,071	68.3	9.8
Heacock St	Perris Blvd to Sunnymead Ranch Pkwy	5,440	65.7	7,859	68.2	2.5
Heacock St	Manzanita Ave to Badger Springs Trail	16,009	68.1	15,628	69.8	1.7
Heacock St	Badger Springs Trail to Sunbow St	16,009	68.1	18,846	69.8	1.7
Heacock St	Myers Ave to Eucalyptus Ave	13,944	66.3	10,783	68.3	1.9
Heacock St	Cottonwood Ave to Alessandro Blvd	22,588	69.3	16,890	74.6	5.3

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Heacock St	Alessandro Blvd to Cactus Ave	17,064	68.9	15,470	74.4	5.6
Heacock St	Iris Ave to San Michele Rd	11,763	72.5	31,209	74.5	2.0
Hidden Springs Dr	Pigeon Pass Rd to Country Crest Dr	61	38.9	68	57.8	18.9
Hidden Springs Dr	Country Crest Dr to Mountain View Rd	4,013	57.7	4,180	68.4	10.8
Hidden Springs Dr	Mountain View Rd to Pigeon Pass Rd	3,938	57.6	4,053	68.5	10.9
Highland Blvd	Redlands Blvd to Juniper Ave	218	52.2	2,971	61.5	9.3
Highland Blvd	Juniper Ave to Ironwood Ave	117	49.8	2,916	59.1	9.4
Indian St	Dracaea Ave to Cottonwood Ave	7,215	61.4	7,284	66.3	4.9
Indian St	Cottonwood Ave to Bay Ave	8,255	64.4	7,240	71.3	6.9
Indian St	Bay Ave to Alessandro Blvd	10,189	65.1	12,227	70.7	5.6
Indian St	John F Kennedy Dr to Gentian Ave	9,418	68.9	12,622	73.2	4.3
Indian St	Gentian Ave to Iris Ave	6,982	68.5	14,735	72.4	3.9
Indian St	Iris Ave to Krameria Ave	3,174	63.7	15,045	71.6	7.9
Indian St	South of Krameria Ave	1,464	62.2	14,148	75.9	13.7
Indian St	North of San Michele Rd	4,450	67.2	15,827	73.7	6.5
Indian St	San Michele Rd to Nandina Ave	6,313	69.9	30,218	75.5	5.6
Iris Ave	Indian St to Emma Ln	3,345	63.3	10,665	74.8	11.4
Iris Ave	Emma Ln to Perris Blvd	3,345	63.7	10,665	76.8	13.0
Iris Ave	Perris Blvd to Kitching St	18,723	72.4	28,968	77.8	5.4
Iris Ave	Kitching St to Lasselle St	19,094	73.3	35,690	77.6	4.3
Iris Ave	Lasselle St to Mesa Verde Dr	34,844	74.9	57,447	77.1	2.3
Iris Ave	Mesa Verde Dr to Nason St	30,595	74.5	52,979	77.2	2.7
Iris Ave	Nason St to Turnberry St	22,944	73.4	44,009	76.7	3.3
Ironwood Ave	Heritage Dr to Pigeon Pass Rd	8,451	64.8	14,458	68.6	3.8
Ironwood Ave	Indian St to Harclare Dr	6,229	61.7	10,070	66.9	5.2
Ironwood Ave	Harclare Dr to Perris Blvd	6,229	61.7	10,720	67.6	5.9
Ironwood Ave	Perris Blvd to Franklin St	10,642	66.0	13,840	67.6	1.6
Ironwood Ave	Franklin St to Kitching St	463	52.4	16,221	67.6	15.2
Ironwood Ave	Lasselle St to Steeplechase Dr	10,231	65.7	9,379	67.8	2.0
Ironwood Ave	Steeplechase Dr to Nason St	5,744	62.3	11,121	68.0	5.7
Ironwood Ave	Redlands Blvd to Highland Blvd	364	53.8	1,267	70.0	16.2
Kitching St	Cottonwood Ave to Bay Ave	7,175	62.5	10,708	68.7	6.2
Kitching St	Bay Ave to Alessandro Blvd	7,119	62.6	8,948	67.7	5.1
Kitching St	Alessandro Blvd to Brodiaea Ave	12,958	65.6	22,404	69.3	3.7
Kitching St	Brodiaea Ave to Cactus Ave	10,330	64.0	19,697	69.5	5.4
Kitching St	Cactus Ave to Delphinium Ave	10,259	65.1	23,400	70.4	5.3
Kitching St	Delphinium Ave to John F Kennedy Dr	10,259	65.1	24,208	69.3	4.3
Kitching St	John F Kennedy Dr to Gentian Ave	14,481	68.2	23,601	73.0	4.9
Krameria Ave	Indian St to Tarano Ln	3,486	60.3	5,080	71.9	11.6

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Krameria Ave	Tarano Ln to Perris Blvd	3,486	60.4	7,881	71.9	11.5
Lake Vista Rd	Sunnymead Ranch Pkwy to Lake Summit Dr	2,067	55.1	3,576	68.0	12.9
Lasselle St	Fir Ave to Eucalyptus Ave	2,432	58.3	2,452	67.9	9.6
Lasselle St	Eucalyptus Ave to Dracaea Ave	4,959	62.5	16,811	68.3	5.8
Lasselle St	Dracaea Ave to Cottonwood Ave	5,096	62.6	16,772	68.4	5.8
Lasselle St	Cottonwood Ave to Bay Ave	10,110	65.3	19,711	69.1	3.8
Lasselle St	Bay Ave to Alessandro Blvd	10,110	65.3	20,524	69.9	4.6
Lasselle St	Alessandro Blvd to Brodiaea Ave	16,672	68.3	19,368	70.1	1.8
Lasselle St	Brodiaea Ave to Cactus Ave	15,702	68.0	23,110	71.1	3.1
Lasselle St	Cactus Ave to John F Kennedy Dr	15,916	68.2	22,994	70.1	1.9
Lasselle St	John F Kennedy Dr to Margaret Ave	20,375	69.9	25,562	71.9	2.1
Lasselle St	Margaret Ave to Gentian Ave	20,375	69.9	20,248	72.9	3.0
Manzanita Ave	Davis St to Indian St	702	53.6	759	69.9	16.3
Manzanita Ave	Indian St to Perris Blvd	1,267	57.1	680	70.3	13.2
Moreno Beach Dr	Locust Ave to Juniper Ave	2,741	59.3	3,362	69.6	10.3
Moreno Beach Dr	Juniper Ave to Ironwood Ave	2,707	59.2	3,230	77.2	17.9
Moreno Beach Dr	Ironwood Ave to SR 60	9,296	68.3	13,533	77.2	8.9
Moreno Beach Dr	SR 60 to Eucalyptus Ave	23,045	74.8	41,697	76.6	1.8
Moreno Beach Dr	Trail Ridge Way to Auto Mall Dr	14,133	72.6	38,680	76.9	4.2
Moreno Beach Dr	Auto Mall Dr to Cottonwood Ave	13,827	72.5	36,941	76.8	4.2
Moreno Beach Dr	Cottonwood Ave to Bay Ave	12,522	72.3	42,094	76.4	4.1
Moreno Beach Dr	Bay Ave to Alessandro Blvd	12,522	72.3	40,643	74.7	2.5
Moreno Beach Dr	Brodiaea Ave to Cactus Ave	12,051	70.1	41,521	76.9	6.8
Morrison St	Fir Ave to Eucalyptus Ave	842	54.1	1,881	66.5	12.5
Morrison St	Eucalyptus Ave to Dracaea Ave	9,204	65.1	12,012	66.9	1.8
Morrison St	Cottonwood Ave to Bay Ave	5,500	63.1	13,856	77.9	14.8
Morrison St	Bay Ave to Alessandro Blvd	5,497	63.0	14,094	78.4	15.4
Nandina Ave	Indian St to Perris Blvd	4,377	69.5	4,241	71.5	2.0
Nason St	Ironwood Ave to SR 60	9,429	65.6	13,979	70.6	5.1
Nason St	Fir Ave to Eucalyptus Ave	14,956	68.1	24,411	70.3	2.2
Nason St	Dracaea Ave to Cottonwood Ave	14,196	67.8	24,758	71.2	3.3
Old 215 Frontage Rd	Dracaea Ave to Cottonwood Ave	4,322	61.3	4,627	64.8	3.5

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
Old 215 Frontage Rd	Alessandro Blvd to Cactus Ave	5,332	62.6	464	69.4	6.9
Old Lake Dr	Pigeon Pass Rd to Sunnymead Ranch Pkwy	10,703	65.2	11,737	69.0	3.9
Oliver St	Cactus Ave to Rockwood Ave	5,424	64.3	16,353	68.2	3.8
Oliver St	Rockwood Ave to John F Kennedy Dr	5,424	64.3	15,572	68.3	3.9
Oliver St	John F Kennedy Dr to Iris Ave	3,007	61.2	14,390	69.9	8.7
Perris Blvd	North of Sunnymead Ranch Pkwy	10,136	68.0	11,691	69.8	1.7
Perris Blvd	Manzanita Ave to Jaclyn Ave	12,764	68.7	17,510	70.8	2.1
Perris Blvd	Jaclyn Ave to Kalmia Ave	14,701	69.2	17,753	73.4	4.2
Perris Blvd	Kalmia Ave to Ironwood Ave	17,955	69.9	22,737	75.9	6.0
Perris Blvd	Cactus Ave to Delphinium Ave	24,086	70.5	25,035	75.7	5.2
Perris Blvd	Delphinium Ave to John F Kennedy Dr	24,086	70.5	27,548	74.3	3.8
Perris Blvd	John F Kennedy Dr to Filaree Ave	35,488	74.5	45,840	74.6	0.1
Perris Blvd	Gentian Ave to Santiago Dr	28,981	73.9	33,494	77.4	3.5
Perris Blvd	Santiago Dr to Iris Ave	28,981	73.9	37,151	78.5	4.6
Perris Blvd	Iris Ave to Krameria Ave	40,944	76.3	51,656	78.7	2.3
Pigeon Pass Rd	Hidden Springs Dr to Lawless Rd	1,167	56.2	1,257	62.1	5.9
Pigeon Pass Rd	Lawless Rd to Sunnymead Ranch Pkwy	1,167	56.2	1,257	70.9	14.7
Pigeon Pass Rd	Sunnymead Ranch Pkwy to Old Lake Dr	5,893	63.3	4,341	71.5	8.2
Pigeon Pass Rd	Harland Dr to Ironwood Ave	21,213	71.5	24,531	73.9	2.4
Pigeon Pass Rd	Ironwood Ave to Hemlock Ave	27,538	70.5	30,596	73.3	2.8
Redlands Blvd	Ironwood Ave to SR 60	14,836	70.8	21,775	72.6	1.8
Redlands Blvd	SR 60 to Eucalyptus Ave	12,308	70.8	24,701	73.1	2.3
San Michele Rd	Heacock St to Indian St	122	46.4	8,567	69.5	23.1
San Michele Rd	Indian St to Perris Blvd	5,297	65.9	6,039	67.4	1.5
Sunnymead Ranch Pkwy	Pigeon Pass Rd to Lake Vista Rd	486	52.3	2,350	64.9	12.6
Sunnymead Ranch Pkwy	Lake Vista Rd to Old Lake Dr	2,318	59.3	5,450	65.4	6.1
Sunnymead Ranch Pkwy	Old Lake Dr to Heacock St	7,450	64.8	7,639	69.3	4.5
Theodore St	Ironwood Ave to SR 60	436	54.8	3,783	66.8	12.0
Town Cir	Centerpoint Dr to Heritage Way	6,374	61.2	6,057	69.0	7.8
Towngate Blvd	Eucalyptus Ave to Heritage Way	5,590	62.2	6,901	69.3	7.1
Via Del Lago	Iris Ave to Alta Calle	5,131	62.7	15,001	88.3	25.6
Via Del Lago	South of Alta Calle	297	49.9	2,290	86.3	36.3
SR 60	Heacock St to Perris Blvd	104,638	82.8	126,695	85.5	2.8
SR 60	Perris Blvd to Nason St	85,489	82.2	112,163	83.9	1.7
SR 60	Moreno Beach Dr to Redlands Blvd	72,123	81.8	94,973	85.0	3.2

Table 4.13-8
Roadway Segments with Potentially Significant Traffic Noise Increases

Roadway	Segment	Existing ADT Volumes	Existing CNEL (dB[A] at 50 feet)	Future Buildout ADT Volumes	Buildout CNEL (dB[A] at 50 feet)	Increase in CNEL (dB[A] at 50 feet)
SR 60	Redlands Blvd to World Logistics Cir Pkwy	63,183	81.1	94,057	85.4	4.3
I-215	SR-60 to Eastridge Ave	113,294	83.6	162,330	85.4	1.8
See Appendix D for traffic noise level changes along all studied routes.						

The 2024 GPU Noise Element includes measures to reduce vehicle noise. Policy N.1-1 of the 2024 GPU seeks to protect existing uses from exposure to excessive noise adjacent to freeways and major roads, and Action N.1-C calls for the City to study the feasibility of using alternative pavement materials, such as rubberized asphalt pavements on roadways to reduce noise generation. The City is currently using rubberized asphalt pavement in some locations within the Planning Area. These measures would help minimize the increase in ambient traffic noise described above. However, the increase in ambient noise levels adjacent to the roadway segments listed above would likely remain at levels that would expose existing noise-sensitive receptors to a significant increase in ambient noise levels, and impacts would be significant.

Land Use Compatibility

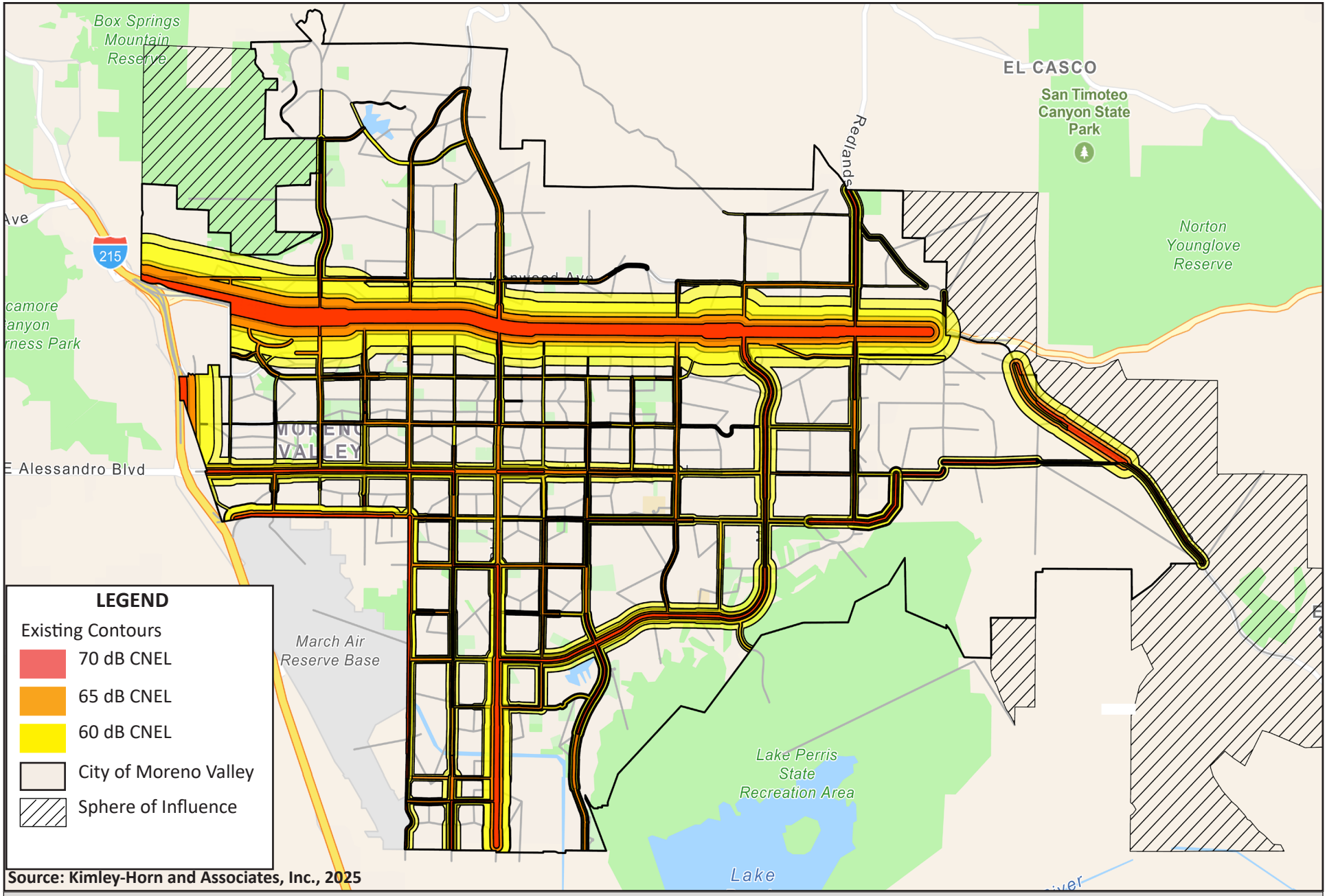
Future vehicle traffic noise contours are shown in Figure 4.13-7: Future Traffic Noise Contours Map. A significant impact would occur if implementation of the 2024 GPU resulted in an exposure of people to current or future motor vehicle traffic noise levels that exceed standards established in the 2024 GPU Noise Element (see Table 4.13-7). The 2024 GPU land use plan proposes a variety of land uses, including residential, commercial, office, industrial, public, and parks. See Figure 4.13-8: 2040 Project Noise Sensitive Receptors. The 2024 GPU primarily focuses future development and redevelopment within proposed Concept Areas. Noise-sensitive uses developed within the Concept Area near higher-volume roadways could experience noise levels in excess of the noise standards. The following is a discussion of the land use noise compatibility in each of the Concept Areas and based on the noise level at 50 feet from the surrounding roadway center.

Downtown Center. The Downtown Center Concept Area would be located in the central portion of the City, bordered by Cottonwood Avenue to the north, Iris Avenue to the south, Lasselle Street to the west, and Oliver Street to the east. The Downtown Center designation would allow for a mix of business, entertainment, residential, primarily within the Aquabella Specific Plan area, cultural, and civic uses. The Downtown Center also encompass the two major medical centers in the Planning Area. Residential uses are “normally acceptable” with noise levels up to 65 CNEL and “conditionally acceptable” with noise levels up 70 CNEL. Office buildings, business commercial, and professional uses are “normally acceptable” with noise levels up to 70 CNEL and “conditionally acceptable” with noise levels up to between 75 and 80 CNEL.

Future vehicle traffic noise levels at the Downtown Center would range from 60 CNEL to 80 CNEL. Noise sensitive uses located closest to Iris Avenue could be exposed to noise levels over 75 CNEL, however noise levels would not exceed 80 CNEL. Noise compatibility impacts at the commercial uses within the Downtown Center Concept Area would be less than significant; however, impacts at proposed residential uses would be potentially significant.

Community Centers. Two Community Center Concept Areas are proposed in the western portion of the City at the existing Moreno Valley Mall and The District shopping centers. The Moreno Valley Mall is generally bounded by SR 60 to the north, Towngate Boulevard to the south, Frederick Street to the east, and Day Street to the west. The District Community Center is generally bounded by Ironwood Avenue to the north, Hemlock Avenue and SR 60 to the south, Indian Street to the east, and Heacock Street to the west. The Center Mixed Use (CEMU) designation would allow for pedestrian-oriented places with a mix of uses including retail, dining, entertainment, offices, lodging, recreational and cultural facilities along with higher-density residential uses. Residential and lodging uses are "normally acceptable" with noise levels up to 65 CNEL and "conditionally acceptable" with noise levels up 70 CNEL.

Future vehicle traffic noise levels at the Moreno Valley Mall Concept Area would range from 60 to 75 CNEL. However, the noise level at noise sensitive uses located near SR 60 could exceed 85 CNEL. Noise compatibility impacts at residential uses adjacent to impacted roadways within the Moreno Valley Mall Concept Area and the District Concept Area would be potentially significant.



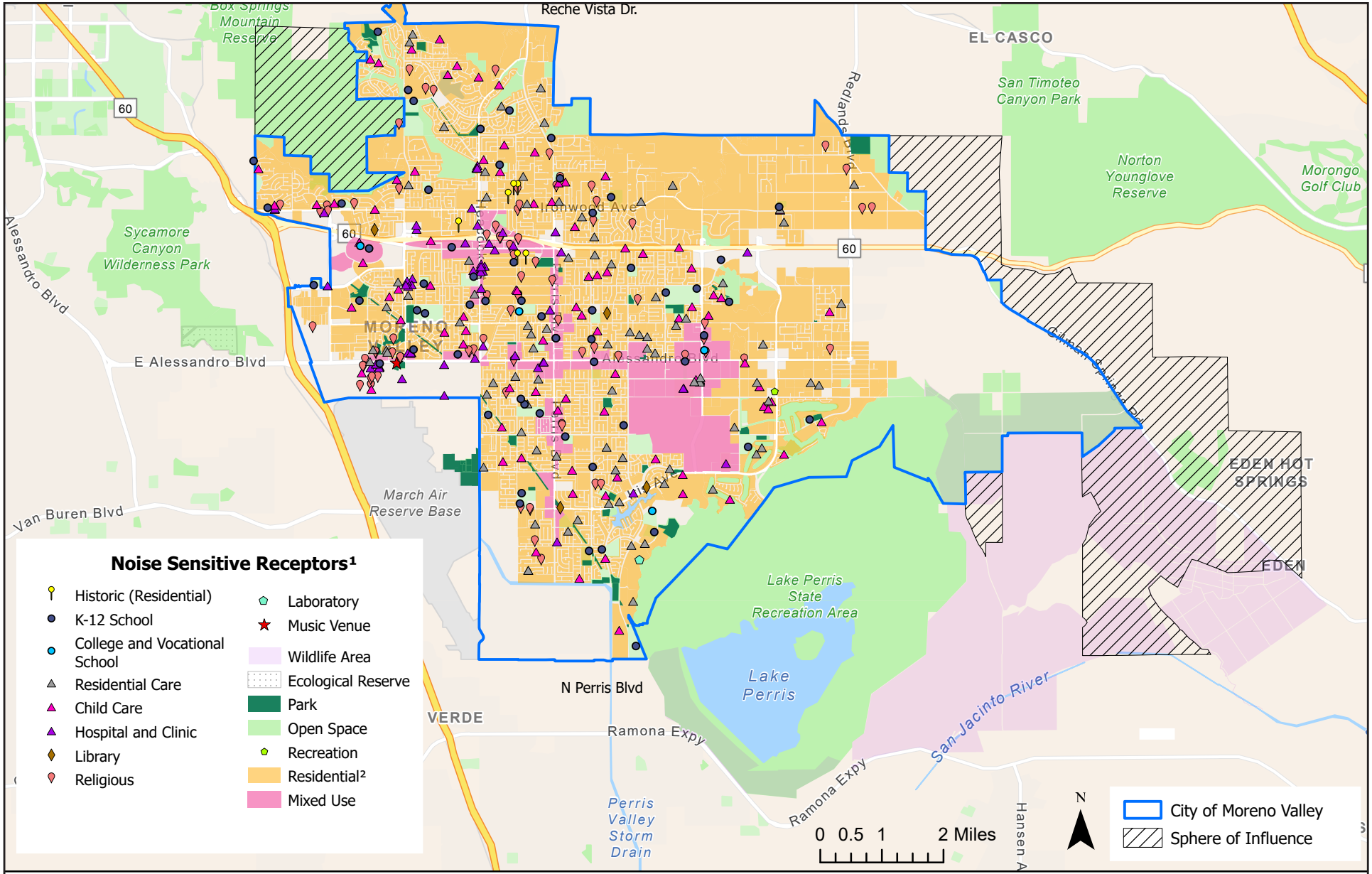
Source: Kimley-Horn and Associates, Inc., 2025

FIGURE 4.13-7: FUTURE TRAFFIC NOISE CONTOURS

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn



¹ South Coast Air Quality Management District (SCAQMD), CEQA Air Quality Handbook, 1993
² Residential and Mixed Used zones per City of Moreno Valley General Plan 2040 Zoning Map, https://moval.gov/cdd/pdfs/2040GP-Update/Zoning.pdf. Accessed October 2024.

FIGURE 4.13-8: 2040 PROJECT NOISE SENSITIVE RECEPTORS MAP
MoVal 2040 Revised Draft Program EIR

Kimley»Horn

The 2024 GPU would change the land use designation of the parcels adjacent to The District Concept Area to Business Park/Light Industrial. Industrial uses are "normally acceptable" with noise levels up to 75 CNEL and "conditionally acceptable" with noise levels up 80 CNEL. Future vehicle traffic noise levels in this area would range from 60 to 70 CNEL. Noise compatibility impacts at the Business Park/Light Industrial parcels would be less than significant.

Community Corridors. Community Corridors Concept Areas are proposed along existing major transit corridors of Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, Heacock Street, Indian Street, and Perris Boulevard. The Corridor Mixed-Use (COMU) designation would promote a mix of residential, commercial, and professional office uses. Residential uses are "normally acceptable" with noise levels up to 65 CNEL and "conditionally acceptable" with noise levels up 70 CNEL. Office buildings, business commercial, and professional uses are "normally acceptable" with noise levels up to 70 CNEL and "conditionally acceptable" with noise levels up to between 75 and 80 CNEL.

Future vehicle traffic noise levels adjacent to major transit corridors within the Community Corridors Concept Areas would range from 60 to over 75 CNEL. Noise compatibility impacts at the commercial and professional uses within the Community Corridors Concept Area would be less than significant, however, impacts at proposed residential uses located adjacent to transit corridors would be potentially significant.

Highway Office/Commercial. The Highway Office/Commercial Concept Area is proposed in the northeastern portion of the City, north of SR 60, south of Ironwood Avenue, west of World Logistics Parkway, and east of Moreno Beach Drive. The Highway Office/Commercial Concept Area envisions the creation of an inviting gateway of retail, commercial, office, and other uses (e.g., employment campus; educational campus). Office buildings, business commercial, and professional uses are "normally acceptable" with noise levels up to 70 CNEL and "conditionally acceptable" with noise levels up to between 75 and 80 CNEL.

Future vehicle traffic noise levels adjacent to roadways in this area would mostly range from 55 to 75 CNEL. Noise sensitive uses located closest to SR 60 could be exposed to noise levels over 85 CNEL. Noise compatibility impacts at the Highway Office/Commercial Concept Area would be potentially significant.

Business Flex. A Business Flex Concept Area is proposed in the western portion of the City, south of SR 60, generally along Alessandro Boulevard, and adjacent to the MARB. The Business Flex concept allows a range of light industrial and commercial businesses consistent with ALUCP regulations. The Business Flex Concept Area would provide for business activities involving production, distribution, or repair with supporting office and commercial space. Industrial and manufacturing uses are "normally acceptable" with noise levels up to 75 CNEL and "conditionally acceptable" with noise levels up to 80 CNEL.

Future vehicle traffic noise levels adjacent to roadways in this area would range from 60 to 80 CNEL. Noise compatibility impacts at the industrial and commercial uses within the Business Flex Concept Area would be potentially significant.

Residential Density Changes. The 2024 GPU includes targeted residential density changes to provide for higher density housing to support the meeting of State obligations under the Regional Housing Needs Allocation (RHNA) that were implemented through the adoption of the 2021-2029 Housing Element in 2021. Residential uses are "normally acceptable" with noise levels up to 65 CNEL and "conditionally acceptable" with noise levels up 70 CNEL. The residential density change areas are located in the following four general areas:

- Between Sunnymead Boulevard, Cottonwood Avenue, Heacock Street, and Perris Boulevard. Future vehicle traffic noise levels in this area would range from less than 60 CNEL to 80 CNEL. Noise compatibility impacts at proposed residential uses located adjacent to roadways would be potentially significant.

- South of Ironwood Avenue and north of SR 60 along Moreno Beach Drive. Future vehicle traffic noise levels in this area would range from less than 60 CNEL to 75 CNEL and may exceed 75 CNEL at areas closest to SR 60. Noise compatibility impacts at proposed residential uses located adjacent to roadways would be potentially significant.

- The area between Moreno Beach Drive, Eucalyptus Avenue, Quincy Street, and Cottonwood Avenue. Future vehicle traffic noise levels in this area would range from less than 60 CNEL to 75 CNEL. Noise compatibility impacts at proposed residential located adjacent to roadways would be less than significant.

- Southwest of the intersection of Krameria Avenue and Perris Boulevard. Future vehicle traffic noise levels in this area would range from 65 CNEL to 80 CNEL. Noise compatibility impacts at proposed residential uses adjacent to Perris Boulevard would be potentially significant.

2024 GPU Policies N.1-1, N.1-2, N.1-3, N.1-4, N.1-7, and N.2-1 strive to reduce transportation-related noise and require developers to reduce noise impacts on new development through appropriate means including double-paned or soundproof windows, setbacks, berming, and screening. Future discretionary proposals within the City would be required to conduct site-specific exterior noise analyses to demonstrate that the proposed development would not place sensitive receptors in locations where the exterior existing or future noise levels would exceed the land use compatibility standards. Additionally, future development located in areas where exterior noise levels exceed the land use compatibility standards as defined in the 2024 GPU Noise Element, site-specific interior noise analyses demonstrating compliance with the interior noise standards of Title 24 and the 2024 GPU. These requirements for site-specific noise analyses would be implemented through submission of a Title 24 Compliance Report to demonstrate interior noise levels of 45 CNEL. Through implementation of this regulatory framework, exterior and interior traffic noise impacts associated with new development would be less than significant.

b. Railroad Noise

The Planning Area boundary is located approximately 200 feet from the SJBL railroad tracks, which is located further than the screening distances for the FTA defined Category 2 and Category 3 land uses. The I-215 is parallel to and lies between the railroad tracks and the Planning Area in most locations. Rail noise increases proximate to the I-215 would be masked by the freeway noise and shielded by structures. The actual noise level in all cases could be reduced due to the presence of intervening topography and structures. Furthermore, the City has limited authority to regulate railroad operations and the resulting noise. Future development under implementation of the 2024 GPU is not anticipated to result in increases or changes to existing rail activity, and impacts related to rail noise would be less than significant.

c. Stationary Noise

A significant impact would occur if implementation of the 2040 GPU resulted in the exposure of people to noise levels that exceed property line limits established in Municipal Code. Title 11, Peace, Morals and Safety, Chapter 11.80, Noise Regulation. Stationary sources of noise include activities associated with a given land use. For example, noise sources from commercial land uses would include car washes, fast food restaurants, auto repair facilities, parking lots, and a variety of other uses. Operational stationary noise sources from residential, industrial, commercial, and school land uses vary in duration and noise level. Operational noise associated with future development facilitated by the 2024 GPU is likely to occur from stationary sources, such as HVAC units, tankless water heaters, generators, lawn maintenance equipment, and swimming pool pumps.

Industrial uses are largely concentrated in the southwest of the City, adjacent to the MARB and I-215. Additionally, logistics uses have been approved at the World Logistics Center site at the eastern edge of the City. Noise sources from commercial and industrial uses would include mechanical equipment, generators, trucks, forklifts, and back-up beepers. Mechanical equipment (e.g., HVAC equipment) typically generates noise levels of approximately 52 dB(A) at 50 feet.[11] Cargo forklifts generate noise levels of approximately 85 dB(A) at 3 feet.[12] Back-up beepers generated by medium and heavy-duty trucks reversing into loading docks would produce a typical volume of 97 dB(A) at one meter (3.28 feet) from the source (Environmental Health Perspectives, 2011).[13] Noise-sensitive residential land uses could be exposed to excess noise associated with the operation of commercial and industrial uses when the land uses abut.

The type of land uses proposed under the 2024 GPU would be similar to the land uses that currently exist in the Planning Area. Although the 2024 GPU would introduce five new land

[11] Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden 2010, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010

[12] Noise Testing Workplace Noise Consultants 2014, Warehouse & Forklift Workplace Noise Levels, November 2014.

[13] Environmental Health Perspectives 2011, Vehicle Motion Alarms, January 2011.

use designations, the allowed uses would be similar to what currently exists within the Planning Area. The 2024 GPU would primarily focus future development and redevelopment within the proposed Concept Areas that consist of clusters of vacant and underutilized land within the City limit that would increase density along existing corridors. Noise levels within the Planning Area are currently dominated by vehicle traffic on freeways and heavily traveled area roadways, and would continue to be the primary source of noise under buildout of the 2024 GPU. Therefore, future noise levels from stationary sources throughout the Planning Area would not be expected to increase the hourly or daily average sound level with respect to current conditions. While noise-sensitive residential land uses would be exposed to noise associated with the operation of commercial and industrial uses, future development would be required to show compliance with the Noise Regulation of the Municipal Code. As detailed in Section 4.13.2.4, the City regulates specific noise level limits allowable between land uses including limits on hours of operation for various noise-generating activities, guidance for measuring potential noise violations, and violation procedures. Additionally, 2024 GPU Policy N.2-2 and Actions N.2-A and N.2-B state that the City will continue to work with the community to address noise complaints through enforcement of Municipal Code provisions, and to update the Municipal Code to establish controls on outdoor noise in public places. Enforcement of the Noise Regulation of the Municipal Code and 2024 GPU policies and actions would ensure that future development would not result in a substantial permanent increase in ambient noise levels, and impacts would be less than significant.

d. Construction Noise

Future development implemented under the 2024 GPU could result in a temporary ambient noise increase due to construction activities. Due to the developed nature of the Planning Area, there is a high likelihood that construction activities would take place adjacent to existing structures and that sensitive receptors would be located in proximity to construction activities.

Noise impacts occur largely due to the physical modification of land and structures within the City. The 2024 GPU does not include physical alterations to the City. Instead, the 2024 GPU reflects zoning and land use updates resulting from the 2021-2029 Housing Element, which addresses the City's RHNA growth allocation of 13,627 housing units.

Implementation of the 2024 GPU could result in various development projects being constructed simultaneously and over the duration of buildout of the 2024 GPU. Due to the developed nature of the City, there is a high likelihood that construction activities would take place adjacent to existing structures and that sensitive receptors would be close to construction activities. Future development would involve construction activities that would generate on-site noise from heavy construction equipment and off-site noise from heavy haul trucks and construction worker commutes. Construction activities associated with future housing development facilitated by the 2024 GPU is anticipated to occur in incremental phases over time based on market demand and economic and planning considerations. As a result, construction-related noise would not be concentrated in any one area of the City.

Construction activities typically involve the following construction sequences: (1) site preparation and/or demolition; (2) grading and utilities construction; (3) building construction; (4) paving; and (5) architectural coatings. Typical construction equipment would include backhoes, excavators, graders, loaders, compactors, cranes, trucks, pavers, pneumatic tools, generator sets, and air compressors. Typical noise levels generated by construction equipment at 25, 50, and 100 feet are shown in Table 4.13-9: Typical Construction Equipment Noise Levels. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

Table 4.13-9
Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dB[A]) at 25 feet from Source	Typical Noise Level (dB[A]) at 50 feet from Source	Typical Noise Level (dB[A]) at 100 feet from Source
Air Compressor	86	80	74
Backhoe	86	80	74
Compactor	88	82	76
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Concrete Vibrator	82	76	70
Crane, Mobile	89	83	77
Dozer	91	85	79
Generator	88	82	76
Grader	91	85	79
Impact Wrench	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pneumatic Tool	91	85	79
Pump	83	77	71
Roller	91	85	79
Saw	82	76	70
Scraper	91	85	79
Shovel	88	82	76
Truck	90	84	78

SOURCE: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

Because specific project-level information for future development is inherently not available at this time, it is not possible nor appropriate to quantify the construction noise impacts at specific sensitive receptors. In most cases, construction of individual developments associated with implementation of the 2024 GPU would temporarily increase the ambient noise environment in the vicinity of existing and future noise-sensitive receptors. The nearest sensitive uses (e.g., residential uses) could be located within approximately 25 feet of

construction activities associated with the implementation of the 2024 GPU. Intermittent construction equipment could reach or exceed 94 dB(A) (shown in Table 4.13-9). Because of the high degree of variability in construction noise, exposure to such sound level incursions could be brief, and the maximum noise levels at adjacent uses would lessen as the noisiest piece of construction equipment moved farther away, reduced the necessary power setting, and/or changed the interaction with the work piece

Construction noise impacts would be restricted through enforcement of Section 8.14.040 of the Municipal Code, which states that construction within the City is restricted to the hours of 7:00 a.m. to 7:00 p.m. from Monday through Friday excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturdays. The City's allowable construction hours acknowledges that construction activity is a normal function of typical urban and suburban activities during daytime hours. 2024 GPU Policy N.2-3 would also require the enforcement of the regulations in the Municipal Code to reduce potential construction noise impacts. However, construction activities associated with any individual development may occur near noise-sensitive receptors. Depending on the project type, equipment list, time of day, phasing, and overall construction durations, noise disturbances may occur for prolonged periods of time or during the more sensitive nighttime hours. Therefore, construction noise impacts would be considered potentially significant.

4.13.5.2 Topic 2: Vibration

Would the project generate excessive groundborne vibration or groundborne noise levels?

a. Construction

Future development under the 2024 GPU would involve construction activities that would generate on-site noise from heavy equipment, power tools, generators, and other vibration sources. Construction activities could result in groundborne vibration impacts at noise sensitive receptors within the City depending on the site location, duration of construction activities, and equipment used at the construction site. Groundborne vibration would primarily impact vibration sensitive land uses located adjacent to or within the vicinity of individual development sites. The types of construction vibration impacts include human annoyance and building damage.

Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage. The effect on buildings located near a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). Furthermore,

groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Table 4.13-10: Typical Vibration Levels for Construction Equipment identifies anticipated vibration velocity levels for standard types of construction equipment at 25 and 50 feet from the source. As shown in Table 4.13-10, vibration velocities from typical heavy construction equipment operations that would potentially be used during construction of future development under implementation of the 2024 GPU range from 0.003 to 0.644 in/sec PPV at 25 feet from the source of activity.

Table 4.13-10
Typical Vibration Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)	PVV at 50 feet (in/sec)
Large bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Jackhammer	0.035	0.012
Pile Driver	0.644	0.228
Vibratory hammer	0.035	0.012

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Table 12-2,* September 2018.
1. Calculated using the following formula: PPV *equip* = PPV*ref* x $(25/D)^{1.5}$ where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance, PPV (ref) = the reference vibration level in in/sec, and D = the distance from the equipment to the receiver.

Because specific project-level information is inherently not available, it is not possible nor appropriate to quantify the construction vibration impacts at specific sensitive receptors. Construction of future developments would generate temporary vibrations from the use of heavy-duty construction equipment. The nearest sensitive uses (e.g., residential uses) could be located within approximately 25 feet of future construction activities. Pile driving has the potential to generate the highest groundborne vibration levels and is the primary concern for structural damage when it occurs within close proximity of structures. As shown in Table 4.13-10, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA criteria for architectural damage (e.g., 0.12 PPV for fragile or historical resources, 0.2 PPV for non-engineered timber and masonry buildings, and 0.3 PPV for engineered concrete and masonry). As previously noted, construction equipment could generate vibration velocities at 25 feet that exceed the FTA building damage threshold of 0.2 in/sec and the Caltrans' human annoyance threshold of 0.4 in/sec. Therefore, construction vibration impacts would be considered potentially significant.

b. Railroad

As discussed in Section 4.13.1.7 above, the SJBL closely follows the I-215 corridor, bordering the western edge of the City. Both the Metrolink commuter rail and freight trains travel along the corridor. Caltrans notes that train vibration levels are dependent on the speed, load, track condition, and amount of ballast used to support the track. Caltrans prepared a train groundborne vibration contour from recorded train vibration levels. The 0.2 in/sec and

0.08 in/sec vibration contour would extend to 7.5 feet and 25 feet from the rails, respectively. No Category 1 land uses would be constructed within 600 feet of the railroad tracks. For Category 2 land uses such as residences and buildings where people would normally sleep, the screening distance is 200 feet. The screening distance for Category 3 land uses such as institutional land uses within primarily daytime uses, is 120 feet. Since the Planning Area boundaries are located more than 200 feet away from the SJBL, and future development under implementation of the 2024 GPU would not involve railroads, the vibrational impacts associated with future railroad activity would be less than significant.

c. Stationary Sources

Industrial manufacturing operations occasionally utilize equipment or processes that have the potential to generate groundborne vibration levels in their immediate proximity. The residual vibrations from industrial machinery are typically of such low amplitude that they quickly dissipate into the surrounding soil and are rarely perceivable at the surrounding land uses. While the level of this vibration is indeterminate, it would not be expected to exceed that of railroad operations. Railroad operations are shown to create vibration levels under the most stringent Caltrans threshold levels at 25 feet from the rails. Any piece of heavy vibration-causing equipment would be situated further than this distance from any sensitive land uses. Furthermore, residential and commercial uses do not typically generate vibration. Therefore, the vibration impact from stationary sources would be less than significant.

4.13.5.3 Topic 3: Airports

Would the project expose people residing or working in the project area to excessive aircraft noise levels?

As discussed in Section 4.13.1.7 above, the MARB is a joint-use civilian and military facility located southwest of the Planning Area. Portions of the Planning Area are located within the Airport Compatibility Zones A, B1, B2, C1, D, and E. The MARB noise contours in relation to the Planning Area are shown in Figure 4.5-5. Compatibility Zone A is within the 70 and 75 CNEL contour, Zone B1 is within the 65 CNEL contour, Zone B2 is within the 60 CNEL contour, and Zone C1 is within or near the 60 CNEL contour. Compatibility Zone D and Zone E are not located within a noise contour.

The MARB/IPA ALCUP defines the maximum acceptable exterior noise level for new residential land uses as 65 dB(A) CNEL and the maximum interior noise level for noise-sensitive land uses (residences, schools, libraries, museums, hotels and motels, hospitals and nursing homes, places of worship, etc.) as 40 dB(A) CNEL and 45 dB(A) CNEL for office uses. The MARB/IPA ALUCP requires that an acoustical study be complete for new noise-sensitive land uses that are located within the MARB's 60 CNEL contour. In addition, the MARB/IPA ALUCP prohibits the development of new residential uses, except for single-family residences, within the MARB's 60 CNEL noise contour.

The 70 and 75 CNEL noise contours cross into the City in Compatibility Zone A. The existing and proposed land us is Open Space. The 65 CNEL noise contour crosses into the City in two locations identified as Compatibility Zone B1: the southwestern corner of the City west of

Indian Street and south of San Michele Road, and the western edge of the City near the intersection of Old 215 Frontage Road and Alessandro Boulevard. The proposed land use designations in these areas are Business Park/Light Industrial, Business Flex, Commercial, and Open Space. No residential land uses are located in areas where the MARB noise levels exceed 65 CNEL. The 60 CNEL contour crosses into the western portion of the City in locations identified as Compatibility Zone C1. The proposed designations in these areas include those identified above for Compatibility Zone B1 as well as R3 Residential.

The land use restrictions for each of the compatibility zones provides limitations to development to minimize potential hazards including noise exposure. Development within the Air Installation Compatible Use Zone is subject to development standards and restrictions as set forth in Municipal Code Section 9.07.060. Future development that would be located within the City's special zone and/or within the ALUC Compatibility Zones would be required to adhere to all special regulations, including Municipal Code development standards and specific land use regulations regarding aircraft noise. 2024 GPU Policies N.1-3, N.2-4, and N.2-5 and Action N.1-A also reinforce the standards contained in the ALUCP. Therefore, adherence with the noise requirements of the ALUCP, the Municipal Code, and associated FAA requirements would ensure that future development would not expose people to excessive aircraft noise levels, and impacts would be less than significant.

4.13.6 Cumulative Analysis

The analysis of vehicle traffic noise provided above is cumulative in nature because the analysis considers noise impacts associated with buildout of the entirety of the Planning Area and the traffic assumptions used in the analysis include cumulative traffic associated with regional growth. Cumulatively, there would be a substantial amount of additional new future development and associated travel demand within the Planning Area and in the surrounding region. The residences and other sensitive land uses located along most of the Planning Area roadways are currently affected by the existing traffic noise, and cumulative growth would result in a significant increase in ambient noise and would potentially result in noise levels that exceed the City's compatibility standards. Therefore, noise impacts associated with ambient noise increases and land use compatibility would be cumulatively considerable and would remain significant and unavoidable.

Stationary source of noise, construction noise, and vibration are generally localized impacts that do not have regional or cumulative considerations. Noise sources associated with past, present, and future development in the region include construction equipment, landscape and building maintenance activities, mechanical equipment, solid waste collection, parking lots, commercial, office, and industrial activities, and residential, school, and recreation activities and events. Noise sources that are adjacent to one another could combine to increase cumulative noise levels. However, stationary noise sources within the Planning Area would not generally combine with noise sources outside the Planning Area to create a cumulative increase in stationary noise. Through enforcement of the Municipal Code, cumulative noise and vibration impacts associated with stationary sources would be less than significant. However, noise and vibration impacts associated with construction activities would be potentially cumulatively significant.

4.13.7 Significance of Impacts before Mitigation

4.13.7.1 Topic 1: Increase in Ambient Noise

a. Traffic Noise

Increase in Ambient Noise

The increase in ambient noise levels adjacent to 198 roadway segments listed in Section 4.13.5.1 could expose existing noise-sensitive receptors to a significant increase in ambient noise levels, and impacts would be significant.

Land Use Compatibility

Future development proposals within the Planning Area would be required to conduct site-specific noise analyses to demonstrate that the proposed development would not place sensitive receptors in locations where the existing or future noise levels would exceed the land use compatibility standards. Impacts associated with future development would be less than significant.

b. Railroad Noise

Railroad noise levels would not exceed 60 CNEL within the Planning Area, and impacts would be less than significant.

c. Stationary Noise

Through enforcement of the Noise Regulation of the Municipal Code and 2024 GPU policies and actions, impacts associated with stationary sources of noise would be less than significant.

d. Construction Noise

Construction activities associated with any individual development may occur near noise-sensitive receptors and noise disturbances may occur. Therefore, construction noise impacts would be considered potentially significant.

4.13.7.2 Topic 2: Vibration

a. Construction

Construction details, locations, and equipment for future project-level developments under the 2024 GPU are not known at this time but may cause vibration impacts. Therefore, construction vibration impacts would be considered potentially significant.

b. Railroad

Vibration impacts due to railroad activities and stationary source would be less than significant.

c. Stationary Sources

Since vibration associated with stationary sources would be localized to the immediate vicinity, vibration impacts due to stationary source would be less than significant.

4.13.7.3 Topic 3: Airports

Adherence with the noise requirements of the ALUCP, the Municipal Code, and associated FAA requirements would ensure that future development would not expose people to excessive aircraft noise levels, and impacts would be less than significant.

4.13.8 Mitigation

4.13.8.1 Topic 1: Increase in Ambient Noise

a. Traffic Noise

Impacts associated with the increase in traffic volumes would be significant without mitigation. For existing noise sensitive land uses, possible noise-reduction measures would include retrofitting older structures with acoustically rated windows and doors featuring higher Sound Transmission Class ratings, which is a measure of exterior noise reduction performance. However, there is no mechanism in place for implementing such a retrofit program. In the event that existing uses are demolished and redeveloped, new homes would be required to provide sufficient sound insulation to meet City and CBC interior noise standards. Because it would be speculative to assume that all existing homes along impacted roadways would be redeveloped and the significant noise impacts would be to existing homes and other noise-sensitive uses in an already urbanized area, there is no feasible mitigation. Therefore, impacts to existing sensitive land uses would remain significant and unavoidable.

b. Railroad Noise

Impacts would be less than significant. No mitigation is required.

c. Stationary Noise

Impacts would be less than significant. No mitigation is required.

d. Construction Noise

Impacts related to construction noise would be significant and the following mitigation shall be applied to future development:

NOS-1: The Director of Community Development or his or her designee shall require applicants to demonstrate whether the project has the potential to exceed noise standards contained in Sections 8.14.040 and 11.80.030 of the Municipal Code. If a project may exceed standards or is located adjacent to sensitive receptors, the City shall require the applicant to prepare a Noise Analysis that estimates construction noise and identifies noise reduction measures that would ensure compliance with Municipal Code standards. Construction plans submitted to the City shall identify applicable measures on demolition, grading, and construction plans submitted to the City. Noise reduction measures can include, but are not limited to, the following:

1. Demolition, construction, site preparation, and related activities that would generate noise perceptible at the property line of the subject property are limited to the hours between 7:00 a.m. to 7:00 p.m. from Monday through Friday excluding holidays and from 8:00 a.m. to 4:00 p.m. on Saturdays. The building inspector may issue an exception to this limitation on hours in cases of urgent necessity where the public health and safety will not be substantially impaired.

2. Idling times for noise-generating equipment used in demolition, construction, site preparation, and related activities shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes.

3. Demolition, construction, site preparation, and related activities within 70 feet from the edge of properties with existing, occupied noise-sensitive uses shall incorporate all feasible strategies to reduce noise exposure for noise-sensitive uses, including:

    a. Provide written notice to all known occupied noise-sensitive uses within 400 feet of the edge of the project site boundary at least 2 weeks prior to the start of each construction phase of the construction schedule;

    b. Ensure that construction equipment is properly maintained and equipped with noise control components, such as mufflers, in accordance with manufacturers' specifications;

    c. Re-route construction equipment away from adjacent noise-sensitive uses;

    d. Locate noisy construction equipment away from surrounding noise-sensitive uses;

    e. Use sound aprons or temporary noise enclosures around noise-generating equipment;

    f. Position storage of waste materials, earth, and other supplies in a manner that will function as a noise barrier for surrounding noise-sensitive uses;

g. Use the quietest practical type of equipment;

h. Use electric powered equipment instead of diesel or gasoline engine powered equipment; Use shrouding or shielding and intake and exhaust silencers/mufflers; and

i. Other effective and feasible strategies to reduce construction noise exposure for surrounding noise-sensitive uses.

4. For construction of buildings that require the installation of piles, an alternative to installation of piles by hammering shall be used. This could include the use of augured holes for cast-in-place piles, installation through vibration or hydraulic insertion, or another low-noise technique.

4.13.8.2 Topic 2: Vibration

a. Construction

Impacts related to construction vibration would be significant and the following mitigation shall be applied to future development:

NOS-2: Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for non-engineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving and static rollers as opposed to vibratory rollers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.

b. Railroad

Impacts would be less than significant. No mitigation is required.

c. Stationary Sources

Impacts would be less than significant. No mitigation is required.

4.13.8.3 Topic 3: Airports

Impacts would be less than significant. No mitigation is required.

4.13.9 Significance of Impacts after Mitigation

4.13.9.1 Topic 1: Increase in Ambient Noise

a. Traffic Noise

Impacts to existing sensitive land uses located in areas that would experience a significant increase in ambient noise levels exceeding the applicable land use and noise compatibility level would be significant and unavoidable at this program level of review.

b. Railroad Noise

Impacts would be less than significant. No mitigation is required.

c. Stationary Noise

Impacts would be less than significant. No mitigation is required.

d. Construction Noise

Mitigation Measure NOS-1 would reduce construction noise exposure. However, for construction sites that are adjacent to noise-sensitive uses, there still could be a substantial temporary increase in noise levels that could lead to adverse noise-related impacts. Therefore, impacts would remain significant and unavoidable.

4.13.9.2 Topic 2: Vibration

a. Construction

Mitigation Measure NOS-2 would reduce construction-related vibration impacts to a level less than significant.

b. Railroad

Impacts would be less than significant. No mitigation is required.

c. Stationary Sources

Impacts would be less than significant. No mitigation is required.

4.13.9.3 Topic 3: Airports

Impacts would be less than significant. No mitigation is required.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Population and Housing remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.14 Population/Housing

This section analyzes potentially significant impacts associated with population and housing that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan. The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area). Within the analysis, Concept Areas refers to those areas where the GPU proposes land use changes as shown on Figure 3-1.

4.14.1 Existing Conditions

4.14.1.1 Population and Housing Trends

The Southern California Association of Governments (SCAG) is the metropolitan planning organization responsible for developing and adopting regional housing, population, and employment growth forecasts for local governments from Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. To facilitate regional planning efforts, SCAG's planning area is further organized into 14 sub-regions. The city is one of 15 Riverside County cities located in the Western Riverside Council of Governments (WRCOG) sub-region. Table 4.14-1 presents SCAG growth projections for population, households, and jobs within Moreno Valley through 2040. The regional and city population and housing trends are discussed further below.

Table 4.14-1
SCAG Growth Projections for Moreno Valley

	Existing (2018)	SCAG Projected (2040)	Increment
Population	208,297	256,600	48,303
Households	52,008	73,000	20,992
Employment	44,331	83,200	38,869
SOURCE: SCAG 2016.			

a. Population

Region

Pursuant to the SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) population projections for the WRCOG sub-region are estimated to

increase to 22.1 million people by the year 2040. This equates to a future growth rate of approximately 0.7 percent (SCAG 2016).

City of Moreno Valley

As shown in Table 4.14-1 above, SCAG estimated that the city's population was 208,297 in 2018. SCAG projects that the city's population would increase to 256,600 people by the year 2040, which would constitute an approximately 23.2 percent increase over a 22-year period (SCAG 2016).

b. Housing

Region

The average household size within the SCAG region increased from 3.0 in 2010 to 3.1 in 2015. Also, within this time period, the annual average growth rate of households within the SCAG region was 0.3 percent from 2010-2015, leading to a housing shortage throughout the region despite an increase in housing production. In 2014, 40,000 residential building permits were approved with the permits for multiple housing units accounting for over 60 percent of total residential building permits from 2010-2015 (2016 SCAG).

City of Moreno Valley

As shown in Table 4.14-1 above, SCAG estimated that the city had 52,008 households in 2018. The city's residential areas are characterized by a mix of minimum lot sizes that range from 4,500 square feet up to 1 acre or more as designated by current zoning. There are also smaller lots which have been developed under Planned Unit Developments, as well as some zero lot line tracts that were developed before City incorporation. Larger lots are generally located in the northern portion of the city above State Route 60 (SR-60) and multi-family zoning is more prevalent in the western portion of the city below and surrounding SR-60, west of Kitching Street. Single-family residential zoning is the overwhelming majority of current land zoning and development within the city limit; approximately 9,375 acres or 28 percent of citywide land is zoned single-family residential. SCAG projects that the number of households in the city would increase to 73,000 by the year 2040, which would constitute an approximately 40 percent increase over a 22-year period (SCAG 2016).

4.14.2 Applicable Regulatory Requirements

4.14.2.1 State Regulations

a. Senate Bill 375

Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was approved in 2008. SB 375 provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal is to reduce the number and length of automobile commuting trips, helping to meet the statewide targets for reducing greenhouse gas emissions set by Assembly Bill 32 (see Greenhouse Gas discussion in

Section 4.8 of this Environmental Impact Report). As a part of this effort, SB 375 requires each metropolitan planning organization to add a broader vision for growth to its transportation plan - called a Sustainable Communities Strategy (SCS; see Section 4.14.2.2(a)).

SB 375 also requires the Regional Housing Needs Assessment (RHNA) be completed every eight years and, if a jurisdiction does not meet this requirement, penalties may be incurred.

b. Regional Housing Needs Assessment

In response to a growing population, combined with high housing costs, California has enacted a law that requires SCAG and other councils of governments to periodically distribute the state identified housing needs for their region. Local jurisdictions are required by state law (Government Code Section 65580 et seq.) to plan for their fair share of projected housing construction needs in their region over a specified planning period.

As part of the current planning process, the City is updating the Housing Element for an eight-year planning period spanning October 2021 through October 2029 (Sixth Cycle Housing Element Update; 2021-2029 Housing Element). The City's RHNA allocation for the Sixth Cycle Housing Element Update is a total of 13,627 units of total new construction, allocated by income level categories as follows:

Very Low income units	3,779 unit (28 percent of total)
Low income units:	2,051 units (15 percent of total)
Moderate income units:	2,165 units (16 percent of total)
Above Moderate income units:	5,632 units (41 percent of total)

Government Code Section 65583.2(c) states that the inventory of housing element opportunity sites for the 2021-2029 Housing Element may not include a non-vacant site identified in a prior housing element or a vacant site identified in two or more consecutive planning periods that was not approved for developing housing to meet housing need unless it meets certain additional criteria. The additional criteria include the site being able to be developed at a higher density and also subject to a program in the housing element requiring rezoning within three years of the start of the planning period to allow residential-by-right for housing in which at least 20 percent of the units are affordable to lower income households.

The City's housing sites inventory included in the previous two housing elements relied heavily on the use of vacant sites. Therefore, any lower income vacant sites that were listed in the prior housing elements and also planned for use in the 2021-2029 Housing Element will be subject to the by-right and 20 percent inclusionary requirements.

4.14.2.2 Regional Regulations

a. SCAG Regional Transportation Plan/Sustainable Communities Strategy

The analysis herein is based on regional growth forecasts included in the 2016 SCAG RTP/SCS adopted April 7, 2016[1]. The RTP/SCS was adopted to assist in the development of long-range regional plans and strategies that provide for efficient movement of people, goods and information; enhance economic growth and international trade; and improve the environment and quality of life, which must lay out a plan to meet the region's transportation, housing, economic, and environmental needs in a way that enables the area to lower greenhouse gas emissions (2016 SCAG). Specifically, the 2016 RTP/SCS sets the strategies for participating cities to establish transit areas and livable corridors within their jurisdictions, to account for affordable housing and population growth, and ensure a standard of environmental justice for all residents.

4.14.2.3 Local Regulations

a. Municipal Code

Title 9, Planning and Land Use of the Municipal Code contains requirements and standards for the management of future growth throughout the city through development regulations that dictate the physical development of land and the kinds of uses allowed on each individual property within the Planning Area. The Municipal Code implements the General Plan, providing specific requirements for lot size, building placement, density of development, and height in addition to regulating allowable uses.

4.14.3 Methodologies for Determining Impacts

The potential for significant population and housing impacts were evaluated through a comparison of project buildout with data derived from 2016 SCAG RTP/SCS.

4.14.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to housing and population are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines

[1]This analysis relies on the 2016-2040 RTP/SCS (SCAG 2020) as that was the planning document in place at the time of the Notice to Proceed. Since that time, SCAG has adopted its 2020-2045 RTP/SCS (Connect SoCal). The SCAG projections that are included herein represent planning efforts through the year 2040. The time period utilized for this analysis is appropriate considering the estimate data is the most current available information for the existing conditions and that the project is intended to address buildout through 2040 which is consistent with the 2016-2040 RTP/SCS.

(California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

4.14.5 Impact Analysis

4.15.5.1 Topic 1: Induce Unplanned Population Growth

Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

As detailed in Chapter 3.0, Project Description, the project includes an update to the City's Housing Element to meet the City's RHNA allocation obligations for the Sixth Cycle Housing Element Update, which is a total of 13,627 units of total new construction. Targeted residential density changes are included to provide for higher density housing to support the meeting of state obligations under RHNA. New residential opportunities would be located within the Concept Areas shown in Figure 3-1.

Table 4.14-2 compares existing residential units and employment square footage in 2018 with what is projected to occur in 2040 under buildout of the project. As shown in Table 4.14-2, buildout of the project would result in development of approximately 22,052 new homes, which is greater than the RHNA allocation assigned to the city of 13,627 new homes. This exceedance of the RHNA allocation would provide a buffer in all income categories to ensure the city can navigate the no net loss provisions of the state Housing Element law and have continued ability to meet the RHNA by income group throughout the planning period.

Table 4.14-2
Citywide Buildout Summary

	Residential Units			Employment			
	Low Density	Medium-High Density	Total Units	Commercial/ Retail (sq. ft.)	Office (sq. ft.)	Light Industrial (sq. ft)	Total Jobs
2018	45,922	9,406	55,328	6,525,678	465,215	5,824,148	44,331
2040	52,130	25,250	77,380	9,031,218	2,386,955	51,759,472	83,246
Change	**6,208**	**15,844**	**22,052**	**2,505,540**	**1,921,740**	**45,935,324**	**38,915**

SOURCE: California Department of Finance 2019; United States Census 2020; SCAG 2016; Dyett & Bhatia 2020b.

The results of the buildout summary presented above were then utilized to compare projections for population, housing, and employment under buildout of the project to 2040 SCAG projections. Applying a vacancy rate of 6 percent to the projected 77,380 constructed housing units in 2040, it is estimated that the project buildout would result in 72,737 households. Table 4.14-3 presents a comparison of the 2040 SCAG projections for population, housing, and employment to what is projected under buildout of the project. As shown in Table 4.14-3, the projected project buildout of 72,737 households in 2040 would be less than the 2040 SCAG household projection of 73,000. Similarly, the project's projected population size of 252,179 would be less than the 2040 SCAG projection of 256,600. This difference in population is due to the greater share of multi-family units that would likely result under buildout of the project compared to buildout of the existing 2006 General Plan, as multi-family units typically have a lower household population.

The project would slightly increase the number of jobs to 83,246 compared to the SCAG 2040 growth projection of 83,200. However, this slight increase in approximately 46 jobs would have a negligible effect on future growth that would be offset by the decrease in population and households compared to SCAG 2040 growth projections. Furthermore, the project has been designed to primarily focus future development and redevelopment within Concept Areas that consist of vacant or underutilized land along major transit corridors. Future development outside of the Concept Areas would occur in areas that are already served by infrastructure and would not require extensions into unserved portions of the Planning Area. Therefore, future infrastructure development would occur within areas that are already served by essential roads, utilities, and public services.

Table 4.14-3
Comparison of 2040 SCAG to Project

	SGAG Projected (2040)	Project (2040)	Increment
Population	256,600	252,179	-3,821
Households	73,000	72,737	-263
Employment	83,200	83,246	+46

Overall, the project would exceed the state RHNA requirements, would reduce future population and household growth compared to 2040 SCAG projections, and would locate future infrastructure along major transit corridors that are already served. Therefore, the project would not induce unplanned population growth, and impacts would be less than significant.

4.15.5.2 Topic 2: Displace People or Housing

Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Future redevelopment within the Concept Areas that would occur under the project would have the potential to displace people and housing through demolition of existing residential structures. However, the project would exceed the state RHNA allocations assigned to the

city, providing a buffer in all income categories. This exceedance of the City's RHNA allocation would provide additional housing that would accommodate residents displaced by future redevelopment projects, and ensure no net loss of housing. Furthermore, the project would result in a reduction of future population and household growth compared to 2040 SCAG projections, which would reduce pressure on displaced residents in need of new housing. Therefore, displacement of housing and people associated with the project would not exceed the amount of housing that would be constructed under the project, and impacts would be less than significant.

4.14.6 Cumulative Analysis

The study area considered for the population and housing cumulative impact analysis is defined as the region. Buildout of the project would respond to the city's allocation under RHNA and would accommodate the projected population growth in the region, consistent with adopted plans and regional growth principles. The project would exceed the City's RHNA allocation, which would provide a buffer in all income categories to ensure the City can navigate the no net loss provisions of the state Housing Element law and have continued ability to meet the RHNA by income group throughout the planning period. This exceedance of the RHNA allocation would also provide additional housing that would accommodate residents displaced by future redevelopment projects, and ensure no net loss of housing. It would also reduce pressure on residents searching for new housing. Furthermore, the project would result in a reduction of future population and household growth compared to 2040 SCAG projections. Therefore, the project would not contribute to a cumulative impact related to population and housing.

4.14.7 Significance of Impacts before Mitigation

4.15.7.1 Topic 1: Induce Unplanned Population Growth

The project would exceed the state RHNA requirements, would reduce future population and household growth compared to 2040 SCAG projections, and would locate future infrastructure along major transit corridors that are already served by essential roads, utilities, and public services. Therefore, impacts would be less than significant.

4.15.7.2 Topic 2: Displace People or Housing

The project would exceed the state RHNA requirements, which would provide additional housing that would accommodate residents displaced by future redevelopment projects, and ensure no net loss of housing. Furthermore, the project would result in a reduction of future population and household growth compared to 2040 SCAG projections. Therefore, impacts would be less than significant.

4.14.8 Mitigation

4.15.8.1 Topic 1: Induce Unplanned Population Growth

Impacts would be less than significant. No mitigation is required.

4.15.8.2 Topic 2: Displace People or Housing

Impacts would be less than significant. No mitigation is required.

4.14.9 Significance of Impacts after Mitigation

4.15.9.1 Topic 1: Induce Unplanned Population Growth

Impacts would be less than significant. No mitigation is required.

4.15.9.2 Topic 2: Displace People or Housing

Impacts would be less than significant. No mitigation is required.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). As the Revised Draft EIR accounts for an updated baseline (2024), portions of the analysis presented in the Open Space Element have been updated to accommodate key changes in adopted legislation. However, the analysis of Public Services and Recreation remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.15 Public Services and Recreation

This section analyzes potentially significant impacts related to public services and recreation that could result from implementation of the project, which consists of the General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area.

4.15.1 Existing Conditions

4.15.1.1 Fire and Emergency Service

a. Service and Response

Fire and emergency medical services are provided by Moreno Valley Fire Department (MVFD), under contracts with the Riverside County Fire Department (RCFD) and the California Department of Forestry and Fire Protection (CAL FIRE) for provision of services as part of an integrated regional fire protection system. MVFD is the primary response agency for fires, emergency medical service, hazardous materials incidents, traffic accidents, terrorist acts, catastrophic weather events, and technical rescues for the city. MVFD also provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Through a master mutual aid agreement, MVFD is obligated to provide fire apparatus to other jurisdictions in the region to assist in handling emergency calls for service, just as those jurisdictions are obligated to provide resources to the city. Additionally, the City's Office of Emergency Management is located within the MVFD allowing for a well-coordinated response to both natural and human-made disasters.

Moreno Valley is the busiest of the 30 planning areas served by CAL FIRE/RCFD. In 2018, there were 18,475 incidents in the city, almost 2 percent fewer than 2017. In the same year, the Moreno Valley Battalion responded to 19,605 total cases, the vast majority attributed to medical emergencies but 95 of which were structural fires (Dyett & Bhatia 2020a). MVFD has established a target response time of 5 minutes from dispatch to arrival for 90 percent of calls for service and continues to work to meet this goal.

b. Staffing, Facilities, and Equipment

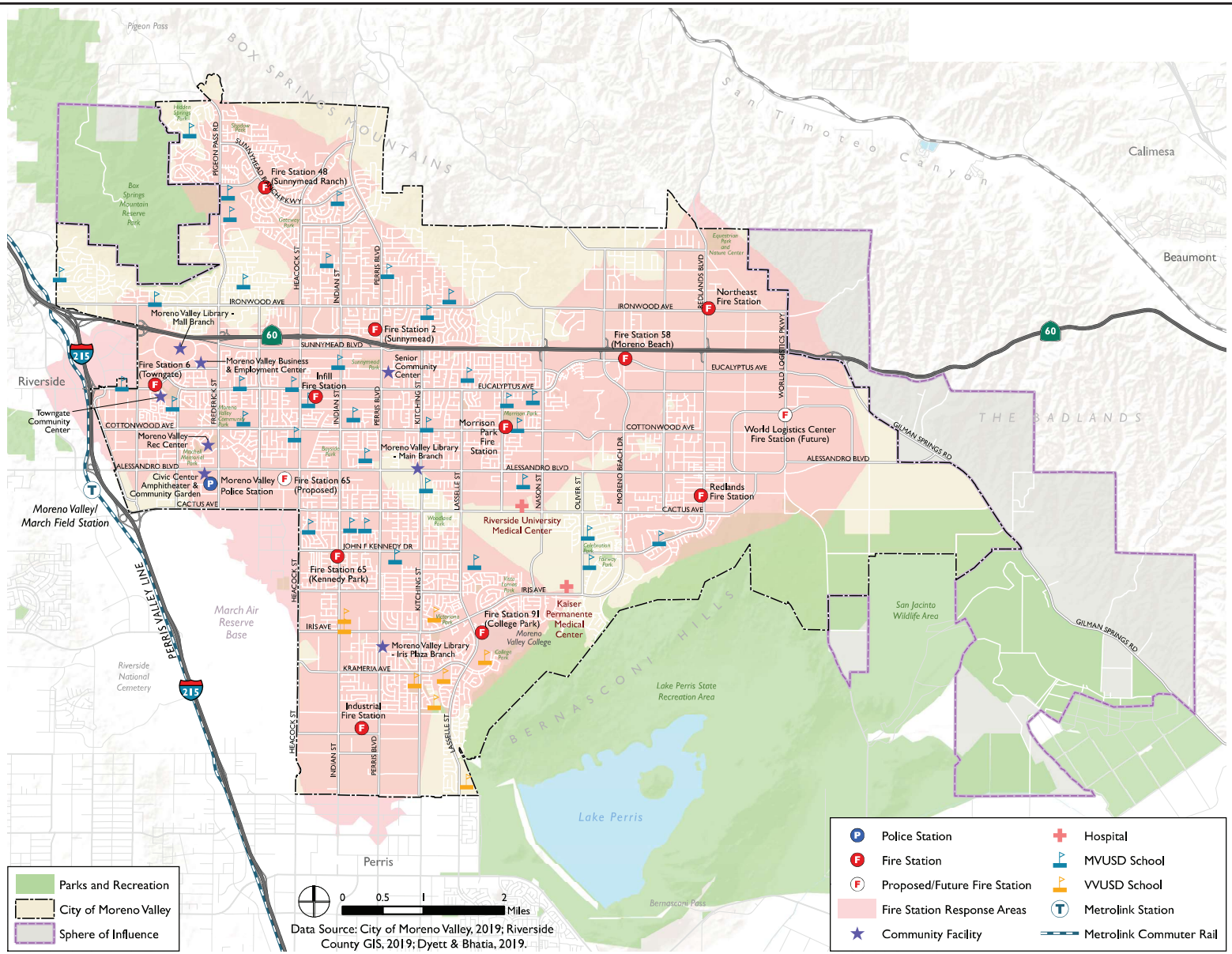
Figure 4.15-1 presents the locations of existing and proposed fire stations within the Planning Area. Table 4.15-1 lists the civic address of each station and the equipment housed. The MVFD has not adopted service ratios for personnel or equipment but strives to achieve National Fire Protection Association standards for the organization and deployment of fire suppression operations (NFPA 1710) and adjusts staffing and equipment levels as needed, based on an ongoing assessment of activity in the city and calls for service.

MVFD has adopted a Strategic Plan covering the period from 2012 through 2022. The Strategic Plan guides MVFD activities and outlines goals and strategies for ensuring the community receives outstanding fire protection services. The document is reviewed biennially to ensure the goals are being met. The Strategic Plan anticipates the need for twelve or thirteen fire stations and a possible fourteenth infill fire station to service projected population through 2022. The location of the eighth and ninth fire stations and one relocation are proposed in the Strategic Plan; Fire Station 65 (Kennedy Park) would be relocated slightly northwest of its current location and future development in the east and southeast would be serviced by the new Redlands Boulevard Fire Station and Industrial Station, respectively. With the development of the World Logistics Center (WLC), the construction of two new fire stations -- one with 12 total personnel and coverage of the aerial truck and one with 9 total personnel and additional fire apparatus -- is planned in the eastern portion of the city. An additional urban fire station is also planned upon completion of WLC construction, to be constructed on a 1.5-acre site dedicated by the WLC. A potential location for this urban fire station is shown on Figure 4.15-1, but may be coordinated with the provision of a new police satellite facility in the area and with development in the future Downtown Center Concept Area. Other projects, funded by the City's Capital Improvement Project (CIP) budget, include land acquisition for future fire stations and facility improvements, as shown in Table 4.15-2. The Strategic Plan also explores the feasibility of additional staffing, reassignment of personnel, division of the City into two Battalions, and acquisition or leasing of additional equipment to increase service levels, especially in anticipation of future growth.

Table 4.15-1
MVFD Stations, Locations, and Equipment

Station	Location	Equipment
Station 2 – Sunnymead	24935 Hamlock Avenue	One Type 1 engine, one 100-foot Aerial Ladder Truck, one Water Resource Squad and one USAR vehicle.
Station 6 – Towngate	22250 Eucalyptus Avenue	One Type 1 engine, one Type 1 reserve engine and one Paramedic Squad.
Station 48 – Sunnymead Ranch	10511 Village Road	One Type 1 engine
Station 58 – Moreno Beach	28040 Eucalyptus Avenue	One Type 1 engine, one Type 3 engine and one Reverse squad.
Station 65 – Kennedy Park	15111 Indian Avenue	One Type 1 engine.
Station 91 – College Park	16110 Lasselle Street	One Type 1 engine and one Reserve Aerial Ladder Truck.
Station 99 – Morrison Park	13400 Morrison Street	One Type 1 engine.
SOURCE: Dyett & Bhatia 2020a.		

Map Source: Dyett & Bhatia



RECON

M:\JOBS5\9504\env\graphics\fig4.15-1.ai 03/30/21 fmm

FIGURE 4.15-1
Public Facilities

Table 4.15-2 Capital Improvement Plan - Fire Department Projects		
Project Title	Description	Status
Cottonwood Park Fire Station (Fire Station 110)	1.5-acre new facility at NE corner of Cottonwood Ave and Indian St	Design partially completed – on hold
Fire Station 65 Relocation	1.5-acre new standard 3-apparatus bay fire station at NE corner of Brodiaea Ave and Rebecca St	Design on hold - subject to availability of funds
Fire Station (Future) Land Acquisition	New facility to service future growth	Land Acquisition depending on development through 2029
Gilman Fire Station	New facility to service future growth, per development agreement in area	Land acquisition depending on development through 2029
Industrial Fire Station	2.5-acre new fire station and drill tower at NE corner of San Michele Rd and San Celeste Rd	Design on hold - subject to availability of funds
Northeast Fire Station	New facility to service future growth in northeast area	Land acquisition on hold
Redlands Boulevard Fire Station	1.5-acre new facility to service development in southeast area	Design on hold - subject to availability of funds
Remodel Fire Station 65 - Indian St and JFK Drive	Renovations for expanded use, per building code requirements	Expected start of construction within 3-5 years
SOURCE: Dyett & Bhatia 2020a.		

c. Volunteers and Programs

Moreno Valley Volunteer Reserve Firefighters assist the MVFD in firefighting activities and provision of Emergency Medical Services (EMS). They respond to alarms as members of fire crews and operate various fire apparatus and equipment, ensuring proper usage and maintenance. Volunteer Reserve Firefighters are also trained as Emergency Medical Technicians, First Responders, or Emergency Medical Responders (EMR) and administer varying degrees of emergency medical aid to injured people under extreme conditions involving trauma, illness, and personal tragedy (Dyett & Bhatia 2020a).

The Moreno Valley Fire Explorer Program is a youth program organized through Learning for Life and designed to allow youth between the ages of 14 and 20 to explore a career in the fire service. The explorers receive training similar to volunteer and professional firefighters, including basic fire chemistry, hose evolutions, ladder operations, medical and CPR training, hazardous materials, and auto extrication. The two Fire Explorer Posts are the West Moreno Valley Fire Explorer Post #906, located at Towngate Fire Station 6, and the East Moreno Valley Fire Explorer Post #958, located at Moreno Fire Station 58.

The CAL FIRE/RCFD Division Chief is the appointed Fire Chief of the MVFD and oversees the City's Fire Prevention Bureau and Office of Emergency Management. The Office of Emergency Management program provides a wide variety of training, such as Community Emergency Response Team (CERT) training and Terrorism Awareness, to both employees and residents. This program is also responsible for citywide prevention, mitigation, preparedness, response, and recovery for natural or man-made disasters.

4.15.1.2 Police Service

a. Service and Staffing

The Moreno Valley Police Department (MVPD) provides law enforcement services that enhance, protect, and promote the quality of life for local residents, businesses, and visitors. The City contracts with the County of Riverside for police protection services. Since incorporation, the City has maintained an annual contract with the Riverside County Sheriff's Department for police protection and crime prevention services. MVPD provides a full range of protection and prevention services, including general law enforcement, traffic enforcement, investigations, and routine support services such as communications, evidence collection, analysis and preservation, training, administration, and records keeping. MVPD also provides law enforcement services at the Riverside University Health System Medical Center and the schools within Moreno Valley Unified School District (MVUSD).

The existing 2006 General Plan established a police staffing standard of at least 1 officer per 1,000 residents, as feasible given budget constraints. MVPD currently operates five divisions as well as a Volunteer group. The five MVPD divisions include Administration, Detective, Patrol, Special Enforcement, and Traffic divisions. The Patrol Division provides first responders to crimes in progress and to calls for service assigned by dispatch. The unit contains nine supervising sergeants, 64 sworn patrol officers, three K-9 teams, and 10 non-sworn officers. MVPD has adopted a zone policing strategy whereby officers are assigned to one of four areas of the city in order to improve response times to calls for service, help officers become more familiar with the community, and build relationships with local residents and business owners.

The MVPD receives approximately 400 to 450 calls per day. Calls to the MVPD are prioritized and assigned by urgency, from greatest urgency (Priority 1) through non-emergency calls. Priority 1 calls include emergency calls which require immediate response, when vehicular pursuit is in process, or when there is reason to believe that an immediate threat to life exists. Priority 2 calls include injured persons, robberies in progress, bomb threats, car jackings, rape, and stolen vehicles. Priority 3 calls include assault, prowlers, disturbances, tampering with vehicles, and burglary alarms. The MVPD has a response target of six minutes or less for Priority 1 calls, 15 minutes or less for Priority 2 calls, and 35 minutes or less for Priority 3 calls. Table 4-15-3 below shows average actual response times for 2019.

Table 4.15-3
MVPD Response Times

Call Type	Target	Response Time (2019)
Priority 1 Calls	6 minutes	6:37
Priority 2 Calls	15 minutes	22:01
Priority 3 Calls	35 minutes	42:46

b. Facilities and Equipment

MVPD operates out of the Moreno Valley Station, located in the Civic Center Complex at Alessandro and Frederick, with satellite substations in several other locations throughout the city. Additionally, MVPD is increasingly making use of technology to fight crime and improve public safety. MVPD employs a citywide camera surveillance system, one of the most advanced in the region, to remotely monitor parks and other key locations, permitting MVPD to enhance public safety without adding police officers. MVPD also makes use of a computer-aided dispatch and records management system that allows rapid access to crime data, as well as digital cameras and automated license plate readers in patrol cars.

The City is planning an expansion of the Civic Center complex that would include a remodeled Public Safety Building capable of accommodating roughly 600 total personnel, as well as a satellite police substation in the southeastern part of the city to service anticipated demand from new development. Continued investment in technology and resources will allow MVPD to expand the camera system, implement advanced license reading applications, and offer video crime reporting services that allows residents to contact MVPD and interact with officers in real-time.

Design of the built environment can also help prevent crime, reduce the fear of crime, and improve the quality of life in urban areas. Research has shown that the most effective deterrent to criminal activity is the risk of being caught, and design of public spaces that places more eyes on the street and limits access points can create safer environments. Strategies for Crime Prevention Through Environmental Design (CPTED) include locating windows to overlook sidewalks and parking lots, increasing pedestrian and bicycle traffic, and selectively installing fencing, landscaping, or lighting to control access. Well-maintained buildings and grounds also signal alert, active owners and can deter criminal activity.

c. Volunteers and Programs

The Administration Division oversees Community and Volunteer Services Programs, as well as the Neighborhood Watch program, and now has 81 volunteers across the Citizen's Patrol Unit, Anti-Graffiti Patrol Unit, Police Explorer Program, Reserve Officer's Program, Station Volunteers, and Mounted Posse.

The Citizen's Patrol Unit conducts uniformed patrols in marked police units to deter crime and trains volunteers in laws of arrest, traffic control, identification of gang members, crime scene management, recognition of DUI drivers, identification of graffiti, and proper radio traffic while communicating with police personnel. The Police Explorer Program is a program for youth between 14 and 20 to gain experience in the law enforcement field and foster leadership skills by assisting different units within the Police Department. Station Volunteers assist various entities at the MVPD station through duties such as filing, tracking offenders, issuing and maintaining equipment and weapons, and data management. The newly formed Mounted Posse is a volunteer-based organization serving all of Riverside County that has direct contact with the public at various functions including community patrol, safety expos, search and rescue operations, and local fairs, concerts, and parades.

These volunteer programs help connect the MVPD to the community and play an important role in ensuring the continued safety and well-being of residents.

4.15.1.3 Schools

a. Moreno Valley Unified School District

MVUSD is the third largest school district in Riverside County, serving approximately 77 square miles that includes portions of the city, a small portion of the city of Riverside, and unincorporated regions in Riverside County. As shown in Table 4.15-4, MVUSD serves Kindergarten through 12th grade across 39 existing school sites, with 32,763 students enrolled in the 2018-2019 school year (Dyett & Bhatia 2020a). Table 4.15-5 shows the student generation rates for elementary, middle, and high schools.

Table 4.15-4
Moreno Valley Unified School District

School Name	Enrollment (2018-19)
Elementary Schools (K-5)	**14,964**
Armada Elementary	857
Bear Valley Elementary	839
Box Springs Elementary	449
Butterfield Elementary	892
Chaparral Hills Elementary	663
Cloverdale Elementary	723
Creekside Elementary	502
Edgemont Elementary	663
Hendrick Ranch Elementary	639
Hidden Springs Elementary	565
Honey Hollow Elementary	620
La Jolla Elementary	740
Midland Elementary	646
Moreno Elementary	483
North Ridge Elementary	747
Ramona Elementary	658
Ridge Crest Elementary	601
Seneca Elementary	456
Serrano Elementary	520
Sugar Hill Elementary	543
Sunnymead Elementary	794
Sunnymeadows Elementary	625
Towngate Elementary	739
Middle Schools (6-8)	**7,765**
Badger Springs Middle	1,186
Landmark Middle	1,160
Mountain View Middle	1,338
Palm Middle	1,245
Sunnymead Middle	1,505
Vista Heights Middle	1,331

Table 4.15-4 Moreno Valley Unified School District	
School Name	Enrollment (2018-19)
High Schools (9-12)	**9,191**
Canyon Springs High	2,173
Moreno Valley High	2,327
Valley View High	2,573
Vista del Lago High	2,118
Continuation and Alternative Schools	
Alessandro School (SDC K-12)	50
Bayside Community Day (9-12)	135
March Mountain (9-12)	334
March Valley (Independent Study 1-8 and Core 9-12)	87
Moreno Valley Community Learning Center (Charter School, 6-12)	27
SOURCE: Dyett & Bhatia 2020a.	

Table 4.15-5 MVUSD Student Generation Rates			
Unmitigated Future Dwelling Units[1]	School Type	Student Generation Rate	Students Generated
17,099	Elementary	0.3314	5,667
17,099	Middle	0.1702	2,910
17,099	High	0.2281	3,900
Overall		**0.7297**	**12,477**
[1]As estimated in the Moreno Valley Unified School District Fee Justification Report 2012.			
SOURCE: Dyett & Bhatia 2020a.			

The 23 elementary schools in MVUSD are set up in a Kindergarten to 5th grade configuration, with curricula following State Content Standards. Elementary school facilities vary widely in age and condition but are designed to adequately deliver necessary programs and MVUSD standards. There are six middle schools for students in grades 6 to 8 which facilities that are enhanced with teaching stations such as science labs, comprehensive physical education facilities, and larger administrative and ancillary spaces. High schools in the MVUSD serve 9th to 12th grade in various settings including comprehensive high schools, a continuation school, a community day school, an alternative school, and a charter school. Facilities for these programs vary according to the specific requirements of each curriculum, but some facilities are in need of improvement or relocation (Dyett & Bhatia 2020a).

MVUSD School Facilities and Funding

Between 2000 and 2012, MVUSD experienced an annual growth rate of 200-1000 pupils. In anticipation of continuing growth, the MVUSD has constructed seven new schools since 2002 and installed over 230 portable classrooms to increase elementary, middle, and high school capacities. However, placement of portable classrooms reduces field and hard-court areas on school sites, and the MVUSD's most recent update to their Facilities Master Plan includes recommendations to replace these structures with permanent buildings to house future students generated by expected development within MVUSD boundaries. MVUSD projected an increase of 12,477 students between 2012 and 2035, based on the projected 17,099 additional

housing units anticipated to be built during that period, multiplied by the Student Generation Rates summarized in Table 4.15-6 (Dyett & Bhatia 2020a).

Since 2009, enrollment at MVUSD schools has decreased by 11 percent overall, or approximately 1 to 2 percent annually, as shown in Table 4.15-6. This means that the MVUSD is able to rely less on portable classrooms and house more students in conventional school buildings. The MVUSD is in the process of building a new elementary school facility at the intersection of Nason Street and Bay Avenue with a capacity for 800 students, and an additional high school is also envisioned in the facilities master plan, anticipated to serve growing needs in the northeastern area of the city in the next 20 years. Other planned facility projects include additions and relocation of services at Creekside Elementary to better facilitate campus safety, wellness, and security, as well as renovation of the existing Rainbow Springs pre-school and location of a wellness center on the campus. The wellness center will provide access to direct and indirect services for students and their families through community partnerships. Services to be provided include focused attention and services to homeless and foster youth students; parent classes for self-efficacy, health, literacy and nutrition; resources for basic needs such as clothing, shoes, transportation and food; family outreach and support through case management; and health service referrals for access to physical dental, immunizations and health insurance.

In addition, in 2014 Measure M was passed, providing $398 million in bond funding for facilities construction and maintenance. Measure M funds further projects proposed and undertaken pursuant to a prior bond measure, Measure A, passed in 2004 to repair and update Moreno Valley schools.

The MVUSD has also sought funding from other sources including the State Office of Public School Construction (OPSC) School Facility Program (SFP), the OPSC Emergency Repair Program (ERP), and the Federal Qualified Zone Academy Bond (QZAB) program. Revenue from development fees also contribute to the school district budget, including School Impact Fees, as allowed by the School Facilities Act of 1986 and Senate Bill 50, in addition to Community Facility District (CFD) or Improvement/Redevelopment Zone fees. These sources of funding allow the MVUSD to continue to maintain and improve the quality of their facilities and services.

Table 4.15-6
Public School District Enrollment Trends

	Enrollment									
Grades Served	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Moreno Valley Unified School District										
K to 5	16,788	16,625	16,276	16,070	16,026	15,837	15,759	15,458	15,138	15,000
6 to 8	8,446	8,383	8,371	8,183	8,039	7,860	7,844	7,900	7,927	7,829
9 to 12	11,575	11,607	11,043	10,671	10,401	10,471	10,284	9,994	10,015	9,934
Subtotal	*36,809*	*36,615*	*35,690*	*34,924*	*34,466*	*34,168*	*33,887*	*33,352*	*33,080*	*32,763*
Val Verde Unified School District										
K to 5	9,020	9,060	9,079	9,197	9,144	9,182	9,137	8,959	8,863	8,680
6 to 8	4,518	4,503	4,504	4,574	4,611	4,593	4,625	4,653	4,811	4,844
9 to 12	6,098	6,124	6,030	6,033	6,013	6,039	6,067	6,299	6,519	6,617
Subtotal	*19,636*	*19,687*	*19,613*	*19,804*	*19,768*	*19,814*	*19,829*	*19,911*	*20,193*	*20,141*
TOTAL	**56,445**	**56,302**	**55,303**	**54,728**	**54,234**	**53,982**	**53,716**	**53,236**	**53,273**	**52,904**

SOURCE: Dyett & Bhatia 2020a.

b. Val Verde Unified School District

Val Verde Unified School District (VVUSD) also serves part of the Planning Area, as well as the cities of Perris and Mead Valley. There are 23 schools in the VVUSD, with a total of 20,141 students enrolled during the 2018-2019 school year. Of these schools, four elementary schools, two middle schools, and one high school are located in the Planning Area. Table 4.15-7 presents enrollment for these schools located within the Planning Area.

Like its neighboring district, VVUSD has experienced a decline in enrollment over the past decade (see Table 4.15-6 above). This includes a 6.3 percent overall decrease, or generally a 1 percent annual change between 2009 and 2019 attributable to a shift in the demographic makeup of VVUSD's population. However, in 2018, VVUSD conducted a School Facilities Needs Analysis and determined that 2,330 additional students would be generated by residential development anticipated to occur in the VVUSD through 2023, which growth would result in a projected 805 unhoused students. Facilities capacity in 2018 was 22,016 seats, and though enrollment for the 2018-2019 school year does not yet provide a capacity challenge, an addition of 2,330 students may require additional facilities in the VVUSD (VVUSD 2018). VVUSD is in the process of updating its facilities master plan, but the need for a new middle school located in Perris and the reopening of an elementary school near the border of Perris and Moreno Valley where the VVUSD has historically seen the most school growth, is anticipated to meet future need. Another priority of the VVUSD is bolstering campus security, and the VVUSD has created its own police department, with the intention of eliminating external issues to allow more emphasis on education.

Table 4.15-7
Val Verde Unified School District within the Planning Area

School Name	Enrollment (2018-19)
Elementary Schools (K-5)	**3,073**
Lasselle Elementary	836
Mary McLeod Bethune Elementary	616
Rainbow Ridge Elementary	777
Victoriano Elementary	844
Middle Schools (6-8)	**1,747**
March Middle	775
Vista Verde Middle	972
High Schools (9-12)	**2,074**
Rancho Verde High[1]	2,074
SOURCE: Dyett & Bhatia 2020a.	

Facilities and Funding

VVUSD collects impact fees from new residential and commercial/industrial development that funds the construction or expansion of additional school facilities, maintenance and improvement of existing facilities, and installation of additional portable classrooms. The most recent project financed by these fees was the construction of new kindergarten buildings at Mead Valley Elementary in 2012. Other anticipated projects include modernization of Rancho Verde High School, which is located in the city (Dyett & Bhatia 2020a).

Bond Measure L, passed in 2012, provided $178 million to upgrade instructional technology; provide facilities and equipment for career and technical education classes; improve energy efficiency; upgrade electrical systems, fire alarms, and school security; and construct new classrooms and schools. The new Orange Vista High School, opened in 2015, was a result of these bond projects and has since also added a new football stadium to its facilities.

c. Moreno Valley College

Post-secondary education is offered at Moreno Valley College (MVC), well-known for programs in business and information technology systems; health, human, and public services; and public safety education and training. MVC offers 54 academic programs for more than 10,000 enrolled students each semester and employs more than 585 people. Additionally, MVC has the iMAKE Innovation Center, a facility that provides students and the broader community with access to innovation equipment and material to develop entrepreneurial skills. The campus consists of two locations; the main campus is located in the city at 16130 Lasselle Street and the off-campus Ben Clark Training Center is located approximately 11 miles from the main campus.

The MVC Facilities Master Plan was updated in June 2019 and encompasses goals to provide additional services and adequate facilities for expanded programs, including satellite spaces in future academic buildings, larger classrooms and instructional labs to accommodate academic tutoring or support spaces directly within or adjacent to the classroom, and location of primary support resources in the new Library Learning Resource Center. A space needs analysis was also conducted to gauge physical space growth in relation to enrollment trends and found that MVC will be at 120 percent capacity load in 2030, with greatest need for student space, physical education/athletics space, and instructional labs. Numerous space changes are anticipated between 2018 and 2027 as outlined in the Facilities Master Plan.

4.15.1.4 Parks/Recreational Facilities

The City's Parks and Community Services Department maintains approximately 482 acres of parkland within the Planning Area, which consists of seven community parks, 24 neighborhood parks, four specialty parks and 15 miles of trails/greenways existing and proposed park and recreational facilities are presented in Table 4.15-8 and Figure 4.15-2. These facilities offer a variety of amenities from ball fields, basketball courts, and playgrounds to picnic tables, barbecues, and a demonstration garden that showcases sustainable gardening and landscaping practices. Additionally, the City maintains joint use agreements with the MVUSD and VVUSD for off-hour use of some school facilities, including gymnasiums and swimming pools. Residents also have access to an extensive array of regional parks and open spaces in the surrounding area, including Box Springs Mountain Reserve Park, Norton Younglove Reserve, the San Jacinto Wildlife Area, and the Lake Perris State Recreation Area. For planning purposes, parks are classified by type based on the size, use, and physical characteristics of the land. The four categories of parks defined by the City are as follows:

- Community Parks are larger parks providing community-wide amenities, meeting needs of large sections of the community. Ideally about 20 to 50 acres in size, these parks have a three-mile radius service area, which represents a 20-minute drive, and often include community buildings, such as a cultural center or teen center, as well as specialty sports facilities. Where Community Parks are located in residential neighborhoods, they serve both the needs of the Community Park service radius and the Neighborhood Park service radius.

- Neighborhood Parks range from ¼ to 20 acres in size and are geared specifically for those living within a ¾-mile radius of the park, which represents a 15-minute walk. Ease of access and walking distance are critical factors in locating a Neighborhood Park. Amenities provided by a Neighborhood Park include practice sports fields, informal open play areas, children's play apparatus, and basketball, tennis, and volleyball courts. Mini Neighborhood Parks are the smallest park classification, ranging in size from ¼ to five acres in size, and are best used to meet limited or specialized recreational needs.

- Specialty Parks provide a single use or activity and generally possess a unique character or function such as equestrian centers, dog parks, skate parks, demonstration gardens, community buildings, aquatic centers, and sport complexes.

- Trails/Greenways allow for uninterrupted, safe pedestrian movement through the city and play an important role in connecting the park, recreation and open space system. There are two main categories of greenways: "Natural" greenways follow existing natural resources; "man-made" greenways result from development projects and are often located in residential subdivisions or along abandoned rail corridors, power line corridors, storm drain easements and collector parkway rights-of-way.

The City also has an existing Multiple-Use Trail System that consists of approximately 15 miles of trails constructed or improved in the city, primarily located in the northwest near Sunnymead Ranch and in the hills in the southern portion of the city bordering the Lake Perris State Recreation Area (see Figure 4.15-2). The multi-use trails accommodate pedestrians, bicyclists, and equestrians, and provides connections to both regional and state trail systems, as well as six equestrian staging areas.

Table 4.15-8
Existing and Planned Parks and Recreation Facilities

Park/Facility Name	Acres	Amenities
Existing Parks and Recreational Facilities		
Community Parks	**166.25**	
El Potrero Park	15.00	Barbecues, four multi-use athletic fields, fitness equipment, picnic tables, playground, soccer field
Lasselle Sports Park Complex	12.75	Barbecues, lit football field, picnic tables, playground, snack bar, lit tennis court
March Field Park (Valley Skate Park)	85.32	Picnic tables, lit skate park, snack bar, lit soccer turf arena, two lit softball/baseball fields
Moreno Valley Community Park	15.58	Barbecues, picnic tables, playground, skate park, snack bar, four lit soccer fields
Morrison Park	14.01	Barbecues, picnic tables, soccer field, snack bar, four lit softball/baseball fields

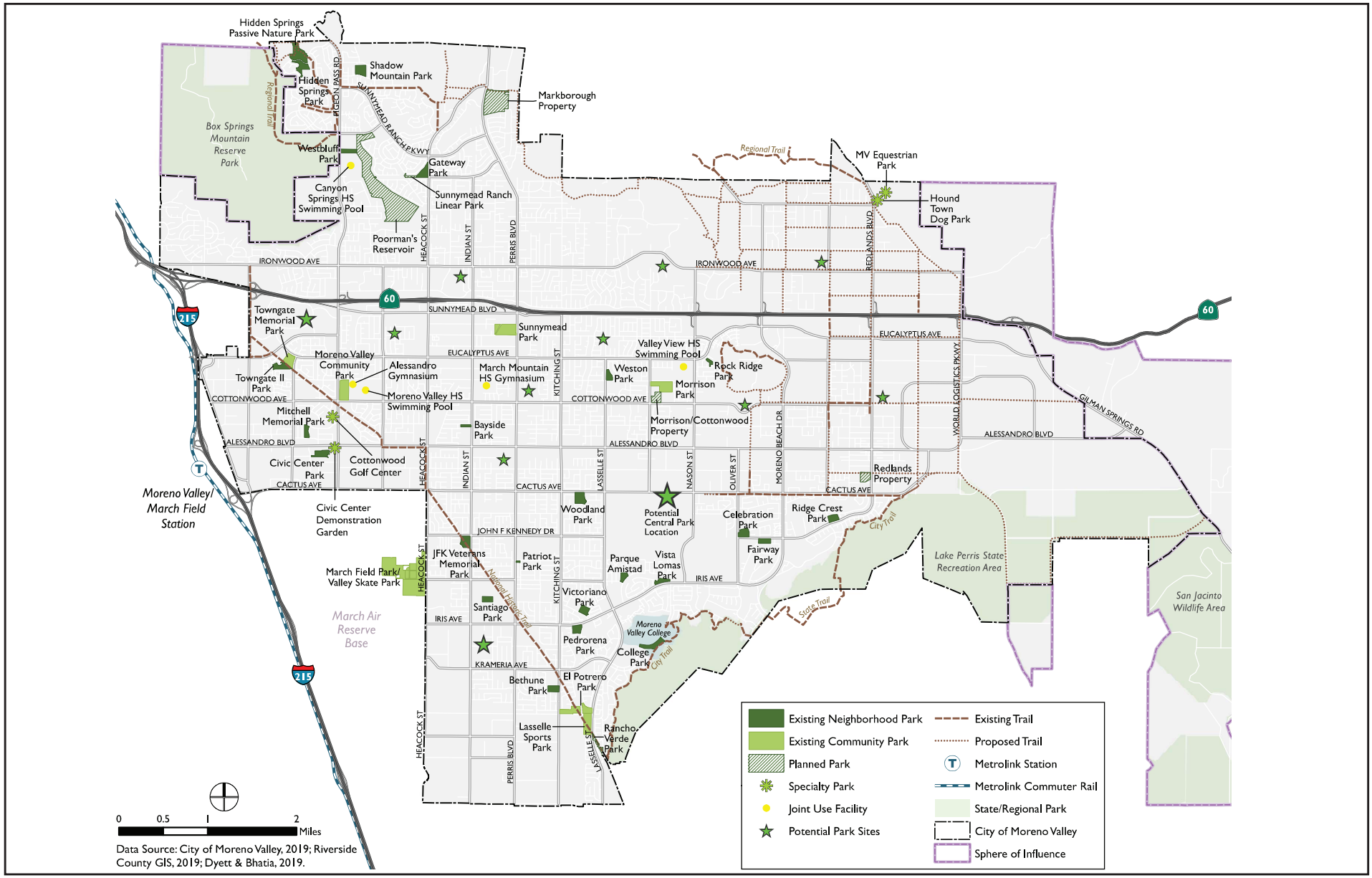
Table 4.15-8 Existing and Planned Parks and Recreation Facilities		
Park/Facility Name	Acres	Amenities
Sunnymead Park	15.53	Barbecues, picnic tables, playground, snack bar, four lit softball/baseball fields
Towngate Memorial Park	8.06	Barbecues, multi-use athletic fields, picnic tables, playground, lit softball/baseball field, walking path
Neighborhood Parks	**155.58**	
Adrienne Mitchell Memorial Park	4.43	Four lit basketball courts, barbecues, horseshoes, picnic tables, playground, walking path
Bayside Park	2.04	Barbecues, lit basketball court, horseshoes, picnic tables, playground
Bethune Park	6.00	Barbecues, picnic tables, playground, snack bar, two softball/baseball fields, two lit tennis courts, water feature
Celebration Park	6.65	Barbecues, lit basketball court, picnic tables, playground, walking path, water feature
Civic Center Park	7.00	Outdoor amphitheater, benches (adjacent to Conference and Recreation Center)
College Park	18.00	Playground, soccer field
Fairway Park	5.50	Barbecues, multi-use athletic field, picnic tables, playground, volleyball court
Gateway Park	7.67	Barbecues, picnic tables, playground
Hidden Springs Park	7.00	Barbecues, multi-purpose trail/trailhead, picnic tables, playground
Hidden Springs Passive Nature Park	17.00	Picnic tables, trailhead, trail
John F. Kennedy Memorial Park	7.69	Barbecues, picnic tables, playground, lit baseball/softball field, four lit tennis courts
Parque Amistad	4.24	Barbecues, lit basketball court, lit multi-use athletic field, picnic tables, playground
Patriot Park	0.50	Picnic tables, playground, walking path
Pedrorena Park	5.50	Barbecues, lit basketball court, multi-use athletic fields, picnic tables, playground, four tennis courts
Ridge Crest Park	5.00	Barbecues, lit multi-use athletic fields, picnic tables, playground
Rock Ridge Park	1.93	Barbecues, picnic tables, playground
Santiago Park	2.84	Fitness area, multi-use field, playground, shade shelters, walking path
Shadow Mountain Park	10.00	Barbecues, picnic tables, two lit softball/baseball fields
Towngate II Park	8.91	Banquet facility, barbecues, picnic tables, playground, walking path
Victoriano Park	5.43	Barbecues, lit multi-use athletic fields, picnic tables
Vista Lomas Park	4.00	Barbecues, lit basketball court, picnic tables, playground
Westbluff Park	5.00	Barbecues, picnic tables, playground, walking path
Weston Park	4.14	Barbecues, lit multi-use athletic fields, picnic tables, playground, lit softball/baseball fields
Woodland Park	9.11	Barbecues, four lit basketball courts, pickleball court, picnic tables, playground, lit softball/baseball fields, four lit tennis courts
Specialty Parks	**61.04**	
Civic Center Demonstration Garden	0.21	Raised planters, instruction area, compost bins, fruit trees, vertical planters
Cottonwood Golf Center	15.83	Banquet facilities, golf course
Hound Town Dog Park	1.00	Dog park
Moreno Valley Equestrian Park	44.00	Horse arenas, multi-purpose trails
Trails/Greenways[1]	90.86	
Juan Bautista Trail	29.61	

Table 4.15-8
Existing and Planned Parks and Recreation Facilities

Park/Facility Name	Acres	Amenities
Multi-Use/Equestrian Trails[2]	61.25	Including: Auto Mall Trail; Cactus Corridor Trail; Cold Creek Trail; Cottonwood Trail; Covey Ranch/Day Break Trail; Eucalyptus Ave. Trail; Iris Ave. Trail; Quincy Channel Trail; Rancho Verde Trail; Redlands Blvd. Trail; Sunnymead Ranch Trail
Trails Heads/Staging Areas	7.84	
Cold Creek Trail Head	0.64	
Cottonwood Staging Area	0.40	
Rancho Verde Equestrian Staging Area	1.30	
Sunnymead Ranch Trail Head	5.50	
Subtotal	481.57	
Current acres of parks/facilities per 1,000 residents (2018)[3]	2.35	
Planned Parks, Open Space, and Recreational Facilities		
Subtotal	194.20	
College Park	7.00	
Markborough Property	43.17	
Morrison Property	8.09	
Poorman's Reservoir	125.00	
Rancho Verde Park	3.44	
Redlands Property	6.00	
Sunnymead Ranch Linear Park	1.50	
Existing and Planned Parks, Open Space, and Recreational Facilities Combined		
Total	675.77	
Existing and planned acres of parks/facilities per 1,000 residents[4]	2.68	
Additional Parks/Facilities Land Needed		
Additional Parks/Facilities	80.77	
Total Existing and Planned and Additional Parks and Recreational Facilities		
TOTAL	**756.54**	

[1]Trails/Greenways includes multiple segments per trail.
[2]The 61.25 acres of Multi-Use/Equestrian Trails includes 15 miles from the Master Plan of Trails network.
[3]Assumes a 2018 population of 205,034 people (U.S. Census Bureau, 2018 American Community Survey 5-Year Estimates).
[4]Assumes a 2040 population of 252,179 people.

Map Source: Dyett & Bhatia



Data Source: City of Moreno Valley, 2019; Riverside County GIS, 2019; Dyett & Bhatia, 2019.

FIGURE 4.15-2
Existing and Planned Parks and Recreation Facilities

RECON

M:\JOBS5\9504\env\graphics\fig4.15-2.ai 03/30/21 fmm

4.15.1.5 Libraries

The Moreno Valley Public Library provides services and programs furthering educational development and cultural vitality of patrons of all ages and backgrounds in the Moreno Valley area. The library has three branch locations as shown in Figure 4-15-1. The Main Branch facility is located on the old Midland Middle School site, reconstructed in 1987 to house the library as well as a senior and community center. The library has since grown to occupy the entire 16,000-square-foot building. The Mall branch satellite location, opened in 2017, is located at 22500 Town Circle. The Iris Plaza Branch, opened in 2020, is located at 16170 Perris Boulevard. The three public libraries offer a wide array of books and technological resources that are suited to serve patrons of all ages, supporting a culture of learning and civic involvement. Moreno Valley Public Library offers a host of programs for local residents, including children's story time, book club in a bag, reading programs, and literacy programs. Additionally, the Library partners with local organizations to host activities such as monthly performing arts programs and displays local art, all events and activities of which are free.

4.15.2 Applicable Regulatory Requirements

4.15.2.1 State

a. California Fire Code

The 2016 California Fire Code (California Code of Regulations Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City has adopted the California Fire Code as Title 8, Chapter 8.36 the Municipal Code, including appendices addressing fire-flow requirements for buildings.

b. Assembly Bill 2926

Assembly Bill (AB) 2926, passed in 1986, allows school districts to collect impact fees from developers of new residential and commercial/industrial building space to assist in providing school facilities for students. Development impact fees (DIFs) are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of costs for construction, modernization, and reconstruction projects.

c. Senate Bill 50 (Statutes of 1998), State School Funding, Education Code Section 17620

Senate Bill (SB) 50, adopted in 1998, limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development. It also authorizes school districts to levy statutory developer fees at levels higher than previously allowed and according to new rules. California Education Code 17620 establishes the authority of any school district to levy a fee, charge, dedication, or other requirements against any development within the school district for the purposes of funding the construction of school facilities, as long as the district can show justification for the fees.

4.15.2.2 Local

a. Moreno Valley Fire Department Strategic Plan

As described in Section 4.15.1.1.b above, MVFD has adopted a Strategic Plan covering the period from 2012 through 2022. The Strategic Plan guides MVFD activities and outlines goals and strategies for ensuring the community receives outstanding fire protection services. The document is reviewed biennially to ensure the goals are being met.

b. Parks, Recreation and Open Space Comprehensive Master Plan

The Parks, Recreation and Open Space Comprehensive Master Plan acts as Moreno Valley's primary implementing tool for parks planning, bridging the City's General Plan and CIP. The master plan provides a detailed inventory of the city's existing parks and recreational facilities and future needs, as well as guidelines for the development of future facilities and potential funding sources. Moreno Valley's parkland dedication ordinance operates under the umbrella of the State of California's 1975 Quimby Act, which allows cities to require that new development dedicate land or pay fees to help ensure sufficient parkland to meet the established standard of three acres per thousand residents. Additionally, the City can explore other strategies to encourage the provision of parks and recreational facilities, such as public-private partnerships or impact bonds, which shift financial burden and risk from local government to a new investor, who provides up-front capital for a project. In these arrangements, performance metrics or outcomes are agreed up front, and when they are achieved the investor received repayment with interest.

4.15.3 Methodologies for Determining Impacts

The potential for significant impacts associated with the proposed GPU has been determined based upon review of existing secondary source information cited above and the applicable General Plan standards relative to the provisions of public services (police, fire and emergency service, schools, and libraries in the city.

4.15.4 Basis for Determining Significance

Thresholds used to evaluate impacts to public services and recreation are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    i. Fire Protection;
    ii. Police Protection;
    iii. Schools;
    iv. Parks/Recreational Facilities; or
    v. Other Public Facilities;
2) 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; or
3) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.15.5 Impact Analysis

4.15.5.1 Topic 1: Public Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire Protection;
ii. Police Protection;
iii. Schools;
iv. Parks/Recreational Facilities; or
v. Other Public Facilities?

a. Fire Protection

Project buildout would generate approximately 43,882 new residents within the Planning Area by 2040, which would necessitate construction of additional fire stations. As described in Section 4.15.1.1.a above, the MVFD Strategic Plan has identified potential locations of future fire stations within the Planning Area. However, future development under the project would be required to pay a DIF that would be used exclusively for future facility improvements necessary to ensure contribution of its fair share of the cost of facilities and

equipment. Payment of the DIF would allow future site-specific development to contribute to its fair share cost of facilities and equipment due to the increased demand for fire protection services. Additionally, the 2021 GPU includes the following goals, policies, and actions related to fire protection.

Goal

PPS-3: Provide for responsive police and fire services that ensure a safe and secure environment for people and property.

Policies

PPS.3-1 Provide responsive, efficient, and effective police services that promote a high level of public safety.

PPS.3-2 Provide fire prevention and emergency response services that minimize fire risks and protect life and property, including fire prevention, fire-related law enforcement, and public education and information programs.

PPS.3-3 Locate and maintain police and fire equipment, facilities, and staffing at locations and levels that allow for effective service delivery.

PPS.3-4 Maintain mutual aid agreements and communication links with the County of Riverside and other surrounding jurisdictions that allow for supplemental aid from other police and fire personnel in the event of emergencies.

PPS.3-5 Monitor the pace and location of development in Moreno Valley and coordinate the timing of fire station construction or expansion to the rise of service demand in surrounding areas.

PPS.3-6 Continue to require that new development make a fair share funding contribution to ensure the provision of adequate police and fire services.

PPS.3-7 Continue to engage the Police and Fire Departments in the development review process to ensure that projects are designed and operated in a manner that minimizes the potential for criminal activity and fire hazards and maximizes the potential for responsive police and fire services.

PPS.3-8 Apply Crime Prevention through Environmental Design principles in the design of new development and encourage the provision of adequate public lighting; windows overlooking streets or parking lots; and paths to increase pedestrian activity within private development projects and public facilities in order to enhance public safety and reduce calls for service.

PPS.3-9 Employ community-based policing strategies and encourage the establishment of neighborhood watch programs in partnerships with community groups.

PPS.3-10 Continue to provide community programs, volunteer opportunities, and fire safety education to residents of appropriate age.

Actions

PPS.3-A Explore new Moreno Valley Police Department volunteer programs and initiatives that continue to strengthen community policing.

PPS.3-B Explore new technology to maintain and enhance public safety including increase citywide camera system.

PPS.3-C Periodically review and update the Fire Department Strategic Plan as conditions warrant.

Construction of future fire protection facilities could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future fire protection facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new fire protection facilities. Furthermore, these future fire protection facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this environmental impact report (EIR), which would reduce impacts associated with the provision of new or physically altered fire protection facilities to a level less than significant.

b. Police Protection

Project buildout would generate approximately 43,882 new residents within the Planning Area by 2040. As described in Section 4.15.1.1.b above, the City is planning an expansion of the Civic Center complex that would include a remodeled Public Safety Building capable of accommodating roughly 600 total personnel, as well as a satellite police substation in the southeastern part of the city to service anticipated demand from new development. These two additional facilities would provide space necessary for additional staffing to provide police protection services under project buildout. Future development would be subject to the payment of a DIF that would be used exclusively for future facility improvements necessary to ensure contribution of its fair share of the cost of facilities and equipment determined to be necessary to adequately accommodate new development in the City. Payment of the DIF would allow future site-specific development to contribute to its fair share cost of facilities and equipment due to the increased demand for police protection facilities. Additionally, the 2021 GPU includes goals, policies, and actions related to police protection that are described above.

Construction of future police protection facilities could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future police protection facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new police stations. Furthermore, these future police protection facilities would be subject to 2021 GPU goals and policies intended

to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered police facilities to a level less than significant.

c. Schools

As described in Section 4.15.1.3 above, MVUSD, VVUSD, and MVC have all identified the need to construct additional schools to meet future enrollment demand. Given that the project buildout horizon year of 2040 exceeds the anticipated growth projections for MVUSD and VVUSD, the project may require additional school facilities that currently anticipated by both districts.

Goal

PPS-2: Locate, design, and program public facilities as contributors to neighborhood quality of life.

Policies

PPS.2-1 Provide community centers, arts/cultural facilities, senior centers and other public facilities and programs, ensuring the facilities are distributed equitably and conveniently throughout Moreno Valley and the programs are accessible to all residents.

PPS.2-2 Encourage privately operated and community-based recreation opportunities, such as climbing gyms, fitness centers, yoga studios, dance schools and other hobby-oriented businesses.

PPS.2-3 Whenever feasible, co-locate City facilities with other public facilities (schools, post offices, hospitals/clinics) so that multiple services may be delivered from a single location.

PPS.2-4 Collaborate with schools to facilitate the shared use of sports and recreational facilities through continued/expanded Joint Use Agreements or other vehicles.

PPS.2-5 Partner with public and private entities to provide community services that support families and meet the diverse needs of community members of all ages, backgrounds, and interests.

Actions

PPS.2-A Continue to promote community health and active living through City-sponsored initiatives, events, and activities (Healthy MoVal, Community Demonstration Garden).

PPS.2-B Pursue funding from public, private, or philanthropic sources to expand community facilities, parks, trails, and programs to better serve the needs of Moreno Valley residents.

PPS.2-C Develop partnerships with businesses, community organizations, and non-profits to supplement and sponsor City programs and events.

PPS.2-D Raise awareness of facilities and programs currently offered by the City and work with residents and stakeholders to identify additional facilities and programs that respond to evolving needs.

PPS.2-E Promote community health and active living through City-sponsored initiatives, events, and activities.

Construction of future schools could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future schools are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new schools. Furthermore, these future schools would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered schools to a level less than significant.

d. Other Public Facilities

Future development would be subject to the payment of a DIF that would be used exclusively for future facility improvements necessary to ensure contribution of its fair share of the cost of facilities, including libraries. Payment of the DIF would allow future site-specific development to contribute to its fair share cost of facilities and equipment due to the increased demand for libraries. Additionally, the 2021 GPU includes goals, policies, and actions related to libraries that are described above.

Construction of future libraries could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future libraries are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new libraries. Furthermore, these future libraries would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered libraries to a level less than significant.

4.15.5.2 Topics 2 and 3: Parks and Recreational Facilities

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?

Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

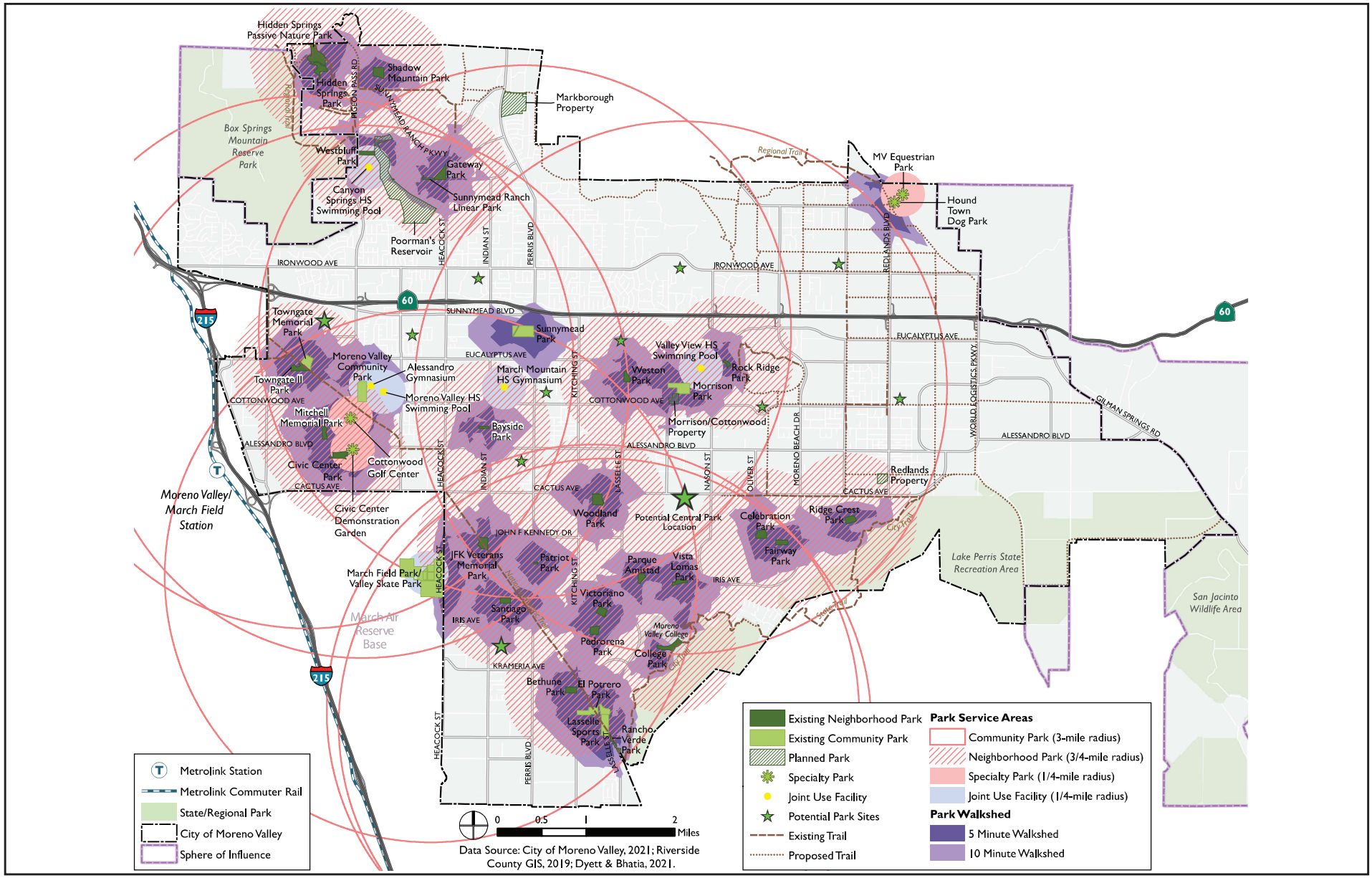
The City has established a park service standard of 3.0 acres of parkland per 1,000 residents to ensure that access to parks is adequate and commensurate with the size of the community. With 675.77 acres of existing and planned parkland, Moreno Valley currently has 2.68 acres per thousand residents, below the established service ratio. However, the City owns 67.7 acres of land planned for new parks, including the Markborough (43.17 acres) and Redlands (6.00 acres) properties, College Park undeveloped area (7.00 acres, dependent upon joint use agreement with Moreno Valley College), Morrison property undeveloped area (8.09 acres) and Rancho Verde Park (3.44 acres). Development of these facilities would provide new recreational open space to satisfy future demand. However, the City is projected to have a population of over 252,000 in 2040, which would necessitate development of an additional 80.77 acres of parkland to meet the established standard. Figure 4.15-2 identifies potential locations for these new facilities, adjacent to areas where new housing is envisioned. New residential developments would be required to dedicate land for new park facilities or pay a fee that can be used for acquisition of parkland as needed to meet the community-wide standard.

While the amount of parkland is an essential consideration in planning for parks and recreational facilities, the quality and accessibility of these spaces is equally important. A city should have parks with a distribution and form that allows the facilities to serve as a point of focus for residential neighborhoods, easily accessible for children, families and seniors from their homes whether they choose to walk, ride, roll or take transit. As shown in Figure 4.15-3, all residential areas of the city are within three miles of a community park and most residential areas are within a 3/4-mile distance of a neighborhood park. However, given the large block size in the city and intervening development, only about a quarter of all residential neighborhoods are within a 5- to 10-minute walk of a park. The provision of new parks at the generalized locations shown on Figure 4.15-2 would help ensure easy access for future residents, and the development of a new Central Park in the Downtown Center with passive and active amenities would provide a signature facility for the community.

The City's Master Plan of Trails envisions expansion of the system into a 56-mile network of City trails that would connect Box Springs Mountain Regional Park with the Lake Perris State Recreation area through the northern and eastern portions of the city. As a condition of project approval for new development on parcels where the Master Plan shows a trail, the City would require trail construction consistent with adopted engineering standards. The network would be completed as development occurs and funding becomes available. The City has also established Beautify MoVal, a program, which allows any private organization, business, non-profit, civic group, or individual resident to take an active role in adopting and maintaining the trail system in Moreno Valley.

Future development would be subject to the payment of a DIF that would be used exclusively for future facility improvements necessary to ensure contribution of its fair share of the cost of facilities, including parks. Payment of the DIF would allow future site-specific development to contribute to its fair share cost of facilities and equipment due to the increased demand for park services. Additionally, the 2021 GPU includes the following goals, policies, and actions related to parks and recreation.

Map Source: Dyett & Bhatia



Data Source: City of Moreno Valley, 2021; Riverside County GIS, 2019; Dyett & Bhatia, 2021.

RECON

M:\JOBS5\9504\env\graphics\fig4.15-3.ai 03/30/21 fmm

FIGURE 4.15-3
Park Service Areas

Goal

PPS-1 Provide and maintain a comprehensive system of quality parks, multi-use trails, and recreational facilities to meet the needs of Moreno Valley's current and future population.

Policies

PPS.1-1 Increase the acreage of parks in Moreno Valley to serve the needs of the growing population and maintain a standard of three acres of parkland per 1,000 residents.

PPS.1-2 Require that proponents of new development projects contribute to the acquisition and development of adequate parks and recreational facilities within the community, either through the dedication of park land or the payment of in-lieu fees.

PPS.1-3 Locate new parks in the generalized locations shown on Map PPS-1 so that all residents have easy access to a park from their home. New parks should be located outside of the 65dbl noise contour (see Map N-3) and be accessible by transit.

PPS.1-4 Design and construct parks, public spaces and recreational facilities for flexible use, energy efficiency, adaptability over time, and ease of maintenance.

PPS.1-5 Use site design, landscaping, lighting, and traffic calming measures to create safe parks and open spaces integrated with adjacent developments.

PPS.1-6 Prioritize the maintenance and, where feasible, improvement of parks and recreational facilities to ensure safe, attractive facilities that are responsive to community needs.

PPS.1-7 Provide on-going opportunities for public involvement and input into the park planning process, including priorities for amenities, facilities, programming, and improvements.

PPS.1-8 Continue to encourage existing volunteer, service club and community group efforts to maintain and improve parks, such as "Beautify MoVal."

PPS.1-9 Design and construct the multi-use trail network to connect parks, plazas, and open spaces within the community and promote access to these spaces.

Actions

PPS.1-A Prioritize the creation of a Central Park facility in the Downtown Center large enough to serve as an amenity and a focal point for the whole community and a draw for visitors from the wider region.

PPS.1-B Update the Parks, Recreation and Open Space Comprehensive Master Plan to reflect projected community needs and continue to use the Master Plan as the primary tool for planning specific capital improvements and parks and recreation programming in Moreno Valley. The update should incorporate priorities, phasing

and funding mechanisms and should also address completion of the multi-use trail system.

PPS.1-C Explore the potential for additional linear parks along public and private utilities easements, including the California Aqueduct.

PPS.1-D Evaluate changes to parkland dedication requirements that will ensure the adequate provision of parkland. These changes may include updating the municipal code to extend parkland dedication requirements to residential projects of fewer than 50 units and requiring that large residential project provide public open space and amenities on-site.

PPS.1-E Work with Moreno Valley Unified School District and Val Verde Unified School District to expand shared use of parks and recreational facilities.

PPS.1-F Periodically assess in-lieu parkland dedication fees, park improvement impact fees, and other fees and charges to ensure they are adequately providing for community need and competitive within the region.

PPS.1-G Leverage city funds to access grants for the construction and maintenance of parks and recreational facilities from federal or state government, philanthropic organizations, or private partners.

PPS.1-H Investigate the feasibility of new park financing strategies such as impact bonds or public-private partnerships that make strategic use of public investment for community benefit.

Construction of these future parks could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future parks are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new parks. Furthermore, these future parks would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR. Therefore, the project would develop future park facilities that would compensate that would address substantial increase in the use of parks that would occur under project buildout, and implementation of the mitigation framework established in this EIR would reduce impacts associated with the provision of new or physically altered parks to a level less than significant.

4.15.6 Cumulative Analysis

The impact analysis presented in Sections 4.15.5.1 and 4.15.5.2 above was cumulative in nature because it considers the need for future facilities to serve the entire Planning Area. As described in Sections 4.15.5.1 and 4.15.5.2 above, future development would be subject to the payment of a DIF that would be used exclusively for future facility improvements necessary to ensure contribution of its fair share of the cost of facilities and equipment determined to be necessary to adequately accommodate new development in the city.

Payment of the DIF would allow future site-specific development to contribute to its fair share cost of facilities and equipment due to the increased demand for police protection facilities. Construction of future public facilities could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future public facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new public facilities. Furthermore, these future public facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR. Therefore, the project would not contribute to a cumulative impact related to public services and recreation.

4.15.7 Significance of Impacts before Mitigation

4.15.7.1 Topic 1: Public Services

a. Fire Protection

Future fire protection facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered fire protection facilities to a level less than significant.

b. Police Protection

Future police protection facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered police facilities to a level less than significant.

c. Schools

Future schools would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered schools to a level less than significant.

d. Other Public Facilities

Future libraries would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the provision of new or physically altered libraries to a level less than significant.

4.15.7.2 Topics 2 and 3: Parks and Recreational Facilities

Future parks would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment, and the programmatic mitigation framework established in this EIR. Therefore, the project would develop future park facilities that would compensate that would address substantial increase in the use of parks that would occur under project buildout, and implementation of the mitigation framework established in this EIR would reduce impacts associated with the provision of new or physically altered parks to a level less than significant.

4.15.8 Mitigation

4.15.8.1 Topic 1: Public Services

a. Fire Protection

Impacts would be less than significant. No mitigation is required.

b. Police Protection

Impacts would be less than significant. No mitigation is required.

c. Schools

Impacts would be less than significant. No mitigation is required.

d. Other Public Facilities

Impacts would be less than significant. No mitigation is required.

4.15.8.2 Topics 2 and 3: Parks and Recreational Facilities

Impacts would be less than significant. No mitigation is required.

4.15.9 Significance of Impacts after Mitigation

4.15.9.1 Topic 1: Public Services

a. Fire Protection

Impacts would be less than significant. No mitigation is required.

b. Police Protection

Impacts would be less than significant. No mitigation is required.

c. Schools

Impacts would be less than significant. No mitigation is required.

d. Other Public Facilities

Impacts would be less than significant. No mitigation is required.

4.15.9.2 Topics 2 and 3: Parks and Recreational Facilities

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Section 4.16, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

4.16 Transportation

This section evaluates potential impacts related to transportation due to implementation of the Project, which consists of the 2024 General Plan Update ("GPU"), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan ("CAP"). These three separate planning documents are collectively referred to as MoVal 2040 Project ("Project"). The analysis area covers the entire City of Moreno Valley ("City") and its sphere of influence, which are collectively referred to as the Planning Area. This section utilizes the results of the Vehicle Miles Traveled ("VMT") Assessment prepared for the Project (Appendix E).

4.16.1 Existing Conditions

4.16.1.1 Existing Street System

a. Roadway Network

The City is connected regionally by State Route 60 (SR 60) and Interstate 215 (I-215). SR 60 bisects the City and provides east-west connectivity to surrounding metropolitan areas. I-215 borders the City on the west and provides north-south connectivity. The roadway network in the Planning Area consists of freeways, boulevards, arterials, collectors, and local streets. The roadway network classifications below has been developed to guide long range transportation planning within the Planning Area to balance access and capacity.

Freeways

Freeways generally provide high speed, high-capacity inter-regional access. Their primary function is to move vehicles through or around the City; thus, there is no access to adjacent land, and limited access to arterial streets. Freeways contain anywhere from 4 to 12 lanes with recommended design volumes from 80,000 to 210,000 vehicles per day. SR 60 is an east-west freeway containing 6 lanes. I-215, an 8 lane highway which runs north-west, borders

the City, but is not within the City's boundaries. The City has no direct control over freeways as they are maintained by the California Department of Transportation (Caltrans) and improvements are programmed through the Riverside County Transportation Commission (RCTC).

Arterials

Arterial streets carry the majority of traffic traveling through the City. They serve two primary functions: to move vehicles into and through the City and to serve adjacent commercial land uses. They provide access to freeways as well as major activity centers and residential areas. Driveways and other curb cuts along arterials are designed to minimize disruption to traffic flow. Sidewalks are typically included along arterials and protected Class I or IV bike lanes are recommended. Truck routes are designated along arterials. The desired maximum roadway capacity on arterials averages from 30,000 to 55,000 vehicles per day depending on number of lanes, type and width of directional separation, presence of on-street parking or bicycle facilities, configuration and frequency of access to adjacent land uses, and intersection configurations. Moreno Valley has several designations of varying right-of-way ("ROW"), the widest Divided Major Arterial (134-foot ROW), Divided Arterial (110-foot ROW), Arterial (100-foot ROW) and down to a Minor Arterial (88-foot ROW).

Boulevards

Boulevards are a type of arterial designed to connect major destinations within the City, and are highly visible and aesthetically landscaped with shade trees and wide sidewalks. Mixed-Use Boulevards in the City provide for high volumes of vehicle flow (40,000-55,000 vehicles per day) including trucks, while providing a wide pedestrian parkway with access to residences along the length of the corridors and shops and services primarily at intersections.

Collectors

Collectors are intended to carry traffic between the arterial street network and local streets or directly from the access drives of higher intensity land uses. Collectors serve commercial, residential, or public uses, and are generally two-lane roadways with sidewalks and bicycle facilities. The desired roadway capacity on a collector street is less than 12,000 vehicles per day. Moreno Valley has designated Industrial Collectors and Neighborhood Collectors. Industrial Collectors are designed primarily for access to industrial and logistics uses that emphasize truck access. Bike facilities on these roads are preferred off-street or with additional protective buffers and/or barriers. Neighborhood Collectors are residential streets that prioritize low vehicle speeds and low-stress bicycle and pedestrian use on parallel routes to arterials.

Local Streets

Local streets are designed to serve adjacent land uses only. They allow access to residential driveways and often provide parking for the neighborhood. They are not intended to serve through traffic traveling from one street to another, but solely local traffic. Sidewalks and shared bicycle facilities are appropriate on local streets. The desired roadway capacity on a

residential street should not exceed about 2,500 vehicles per day and 200-300 vehicles per hour during peak periods. The maximum residential traffic volume that is acceptable to persons living along a street may vary from one street to another depending on roadway width, type of dwelling units (i.e., high density apartments versus single-family homes), presence of schools and other factors. The maximum volume of 2,500 is, therefore, to be used as a guide only, and a neighborhood's sensitivity to potential impacts need to be carefully considered.

4.16.1.2 Housing/Employment Dynamics

Based on 2022 American Community Survey and the 2022 Longitudinal Employer-Household Dynamics Origin Destination Employment Statistics, commute patterns for employed City residents are as follows:

- 31 percent of residents travel less than 10 miles to reach their employment.
- 29 percent of residents travel between 10 and 24 miles to reach their employment.
- 40 percent of residents travel 25 miles or more to reach their employment.

Over two-thirds of City residents travel more than 10 miles to reach their places of employment. The small share of residents traveling less than 10 miles to reach their employment indicates that the City has a relatively small number of people who both live and work in Moreno Valley. An analysis was conducted for the inflow and outflow of workers into the City. Inflow includes people who are employed in the City but live outside of the area, and outflow includes those that live in the City but are employed outside of the area. The OnTheMap Application determined that 89,022 lived in the City. The 2022 In-Area Labor Force Efficiency (All Jobs) analysis determined that 89,022 people live in the City, 75,886 live in the City but are employed outside, and only 13,136 live and work in the City. Based on these statistics, approximately 14.8 percent of the working population lives and works in the City, while the other 85.2 percent lives in the City but is employed outside of it. Table 4.16-1 shows the different counties to which City residents travel for work.

Table 4.16-1
Counties Where Moreno Valley Residents are Employed

County	Count	Share[1]
Riverside County	39,253	44.1%
San Bernardino County	19,201	21.6%
Los Angeles County	13,198	14.8%
Orange County	8,856	9.9%
San Diego County	3,742	4.2%
Ventura County	486	0.5%
All Other Locations	4,286	4.8%
TOTAL	**89,022**	**100.00%**

SOURCE: U.S. Census Bureau, 2022: OnTheMap Application, Longitudinal-Employer Household Dynamics Program, Moreno Valley, http://onthemap.ces.census.gov/. Accessed January 2025.
1. Due to rounding, total Share will not equal 100 percent.

The ratio of jobs to employed residents is often used as an indicator of commute balance. A ratio close to 1.0 indicates a healthy balance and suggests that many people who live in the

community are able to find jobs there as well. A high ratio indicates the community is rich in jobs, while a low ratio indicates that many residents need to commute to other cities for work. With 62,408 jobs and 89,022 employed residents available within the City in 2022, Moreno Valley has a ratio of 0.70, indicating a heavy out-commute. A focus on creating more jobs locally can help address this imbalance, reducing the need for long commutes and allowing Moreno Valley residents to spend more time with family and friends. About 90 percent of Moreno Valley residents work in Riverside, Orange, Los Angeles, or San Bernardino counties. Moreno Valley residents traveling to work experience heavy levels of morning and evening congestion on freeways such as I-10, I-15, SR 60, SR-91, and I-215.

a. Mode Choice

Table 4.16-2 presents the transportation modes utilized for work commutes within the City, Riverside County, and California. The primary mode of travel for all three geographic areas is the automobile, which make up approximately 90 percent of total travel for the City, 88 percent of travel for Riverside County, and 77 percent for California. Public transit constitutes approximately one percent of work commutes for both the City and Riverside County, which is lower than the California average of 3 percent. Bicycling and walking are less common in the City and Riverside County compared to the State.

Table 4.16-2
Commuter Modal Split

Mode Choice	Moreno Valley	Riverside County[2]	California
Single-Occupant Auto	76%	75%	67%
Carpool	14%	11%	10%
Public Transit[1]	1%	0.7%	3%
Bicycling/Walking	1%	1%	2%
Other Means	1%	2%	2%
Work at Home	7%	11%	16%

SOURCE: U.S. Census Bureau 2019-2023 American Community Survey 5-Year Estimates, https://data.census.gov/table?t=Commuting&g=050XX00US06065&d=ACS%205-Year%20Estimates%20Comparison%20Profiles. Accessed February 2025.
1. Public transit excludes taxicab.
2. Due to rounding, Riverside County Commuter Modal Split will not equal 100 percent.

b. Vehicle Miles Traveled

VMT measures the number of miles traveled during a specified time within a specific region. Cities with more accessibility to key destinations and job centers in a region tend to generate less VMT on a per service population (service population is resident population plus employment) or per household basis compared to locations further away from job centers. After adjusting for commute distances, other things being equal, VMT can also be a good proxy to evaluate whether residents use local services or travel farther for those services. Table 4.16-3 presents the VMT for multiple cities in Riverside County from the Base Year (2018) Riverside County Transportation Model ("RIVCOM"), which measures travel demand using the "full accounting method." The full accounting method tracks the full length of any trip that has at least one trip end in the identified city to its ultimate destination.

Moreno Valley VMT per service population is 4 percent lower than the average of incorporated cities in Riverside County and western Riverside County. The VMT per household is also lower than the comparative regions. These VMT per capita estimates signify that Moreno Valley is more efficient from a VMT perspective than other cities within Riverside County.

Table 4.16-3
Vehicle Miles Traveled Summary

City/Region	VMT	VMT per Service Population[1]	VMT per Household
Banning	1,119,703	29.6	101.1
Beaumont	1,664,224	31.1	114.9
Blythe	380,428	21.8	81.7
Calimesa	462,369	36.5	125.8
Canyon Lake	490,309	34.0	126.2
Cathedral City	1,960,655	30.3	112.1
Coachella	1,542,890	29.7	159.6
Corona	9,908,003	40.6	210.3
Desert Hot Springs	1,063,265	32.8	112.8
Eastvale	2,872,790	41.0	176.6
Hemet	2,494,116	24.0	83.0
Indian Wells	418,956	39.7	145.3
Indio	3,631,735	31.8	137.7
Jurupa Valley	5,570,923	41.6	205.7
Lake Elsinore	2,599,717	35.7	154.2
La Quinta	1,941,793	34.3	126.3
Menifee	3,371,753	32.8	110.4
Moreno Valley	8,846,248	32.6	166.8
Murrieta	4,280,855	28.9	122.3
Norco	1,898,495	47.8	265.6
Palm Desert	3,856,066	40.7	166.6
Palm Springs	3,158,707	39.4	130.7
Perris	2,883,710	31.9	166.3
Rancho Mirage	1,434,410	41.5	155.9
Riverside	17,789,523	37.5	173.2
San Jacinto	1,299,286	24.7	91.5
Temecula	4,942,626	30.3	146.7
Wildomar	1,409,814	32.7	129.6
Western Riverside County	85,991,920	34.6	151.6
Riverside County	109,282,612	34.8	148.4
SCAG Region[2]	445,140,856	23.2	67.2

SCAG = Southern California Association of Governments
1. Service population is the sum of population and employment in the City.
2. Estimates for the SCAG region were completed using Riverside Traffic Analysis Model, which is calibrated specifically for Riverside County. The estimates for the SCAG region are not provided within the RIVCOM model. Estimates are provided for comparison purposes only.

4.16.1.3 Pedestrian and Bicycle Network

Active modes of transportation provide environmental, economic, and social sustainability to a city and its transportation system while improving public and personal health. Inadequate

facilities misuse valuable resources and discourage potential users. Well-designed pedestrian and bicycle facilities are needed to make active transportation safe, accessible, attractive, and comfortable enough to be a desirable alternative to driving. It is important to provide a seamless transportation system for all modes and for all people to improve circulation. The Circulation Element of the existing 2006 General Plan focuses on vehicular travel but encourages the proposal of policies and programs that facilitate pedestrian improvements.

a. Sidewalks and Crosswalks

Pedestrian facilities within the Planning Area consist of sidewalks and crosswalks, along with multi-use trails. Figure 4.16-1 presents the locations of existing and proposed bicycle and pedestrian facilities within the City. Most residential and commercial developments provide sidewalks on public streets and internal circulation. Areas with no existing sidewalks are mainly located in undeveloped areas or in a more rural area in the eastern portion of the City and along the City boundary. Sidewalks vary from wide and meandering curb-separated sidewalks to narrow pathways on the side of the road. Sidewalks are sometimes obstructed, incomplete mid-block, or damaged. Crosswalks at signalized intersections are marked and are usually provided for all approaches. Crosswalks at unsignalized intersections are generally not marked, although crosswalks around schools are marked at intersections.

The City is a community designed with auto travel in mind, featuring a suburban tract housing layout, ample parking, major through streets, and separation of land uses that comprise a notable portion of the City. Although walking may not be a viable form of transportation for errand trips, the ample sidewalk widths in established neighborhoods provide a walking environment that accommodates walking trips for leisure and exercise. Factors that affect walkability and the pedestrian experience in the City are described below:

- **Direct, Fine-Grained Pedestrian Networks:** Walking is more efficient and desirable as a means of transportation if direct pedestrian travel, rather than circuitous routes, are available. This is achieved through the development of fine-grained networks of pedestrian pathways that allow for direct access to destinations.

- **Sidewalk Continuity:** Communities are more walkable if sidewalks do not end abruptly and are present on the entire segment and both sides of a roadway. This is especially important for mobility-impaired users or those pushing small children in strollers.

- **Sidewalk Conditions:** This refers to the physical condition of sidewalk surfaces. Sidewalks that are broken or cracked can deter walkability and impede mobility; particularly for persons with disabilities, such as those in wheelchairs, persons using walkers, or strollers.

- **Shading:** Persons are more inclined to walk in areas where there is shade present, particularly in southern California with its relatively warm weather and limited rainfall, as compared to other locations. Additionally, shade trees create an aesthetic value that is pleasing to the pedestrian.

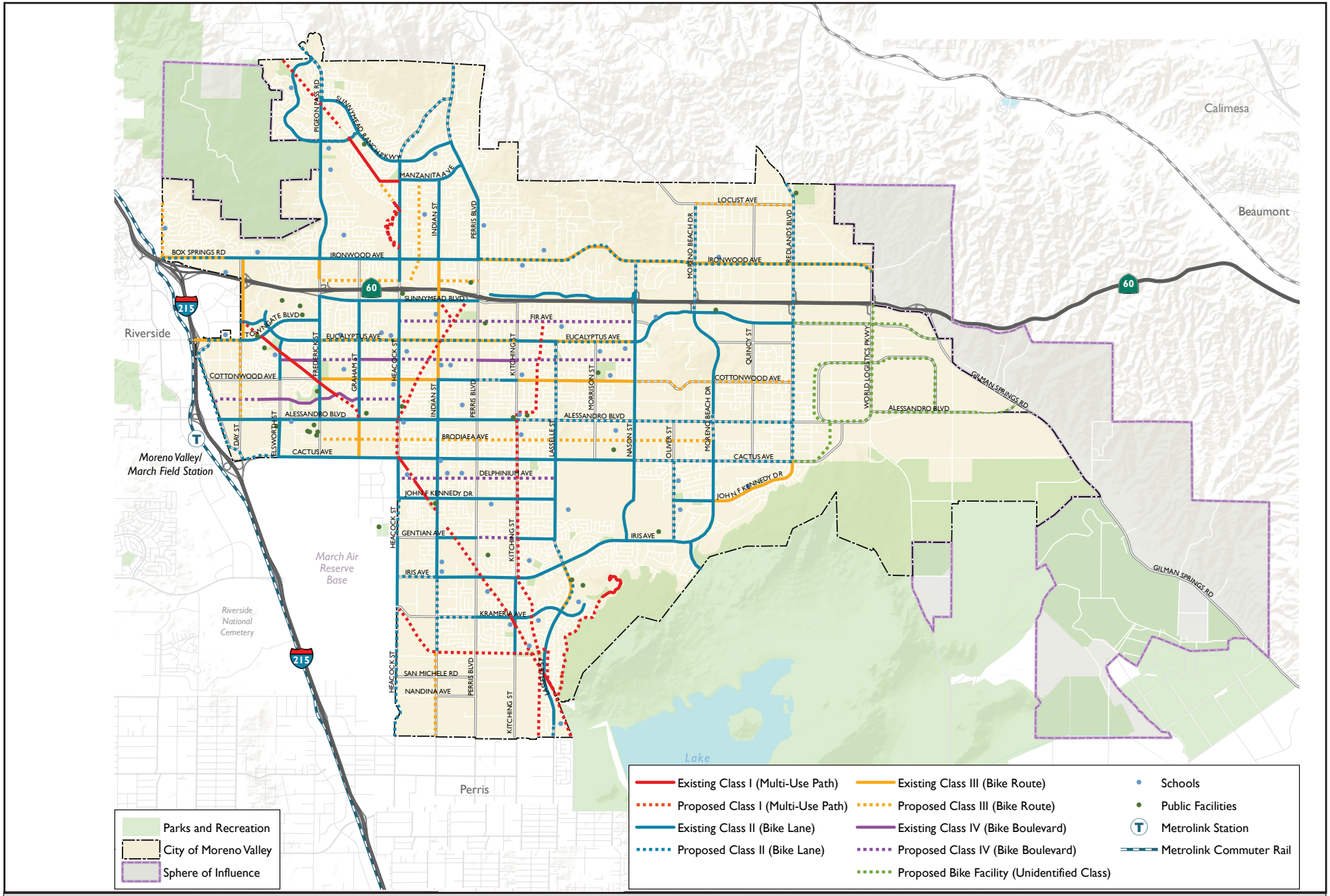


FIGURE 4.16-1 EXISTING AND PLANNED BICYCLE AND PEDESTRIAN NETWORK

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

b. Trails

The Moreno Valley Parks and Community Services Department maintains and operates over 675 acres of parks, trails, and park facilities. Existing multi-use trails accommodate pedestrians, equestrians, and bicyclists. In some instances, existing trails support access to State or regional trails within or near the City. For example, the Moreno Valley M Trail supports access to Box Mountain Regional Park trails. Additionally, the Rancho Verde Trail connects to trails near Lake Perris State Recreation. The Juan Bautista de Anza trail between the intersection of Eucalyptus Avenue/Arbor Park Lane in the north and Lasselle Street in the south provides bicycle northwest-southeast connectivity.

Proposed trails would close gaps between trails in the northwest, northeast, middle, and southern parts of the City and support active transportation in Moreno Valley. Some examples of proposed connections are listed below:

- The Cold Creek Trail in the middle of the City would be connected to the existing trail along Cactus Avenue.
- Proposed trails in nearby neighborhoods would be connected to the existing regional trail on Vista Suelto Road.

Proposed trails in the City not only provide opportunity for recreational activity, but afford off-street connectivity between neighborhoods, parks, schools, public facilities, and major job centers.

c. Bicycle Network

With relatively flat terrain and a rectilinear street grid, Moreno Valley is an inherently bikeable community. Improving bicycling facilities can increase the likelihood and desirability of active transportation modes for short distance trips, school trips, and recreational activities. By shifting mode share to include higher rates of active travel, the City can reduce greenhouse gas ("GHG") emissions and promote a healthy lifestyle, consistent with Assembly Bill ("AB") 32 and other State laws. The different types of bicycle facilities designated in Moreno Valley are described below:

- **Class I Bikeways (Multi-Use Paths).** Class I bikeways are facilities that are physically separated from vehicles, designated for the exclusive use of bicyclists and pedestrians with minimal vehicle crossings.
- **Class II Bikeways (Bike Lanes).** Class II bikeways are striped lanes designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross flow are permitted at designated locations.
- **Class III Bikeways (Bike Routes).** Class III bikeways, also referred to as bike routes, are only identified by signs or pavement markings. A bicycle route is meant for use by bicyclists and for motor vehicle travel (i.e., shared use).

- **Class IV Bikeways (Cycle Tracks).** Class IV bikeways, also referred to as cycle tracks, are protected bike lanes, which provide a right-of-way designated exclusively for bicycle travel within a roadway that is protected from vehicular traffic with devices such as curbs, flexible posts, inflexible physical barriers, or on-street parking.

- **Bicycle Boulevards.** Bicycle Boulevards are convenient, low-stress cycling environments on low traffic volume streets, typically parallel to higher traffic volume streets as an alternative to them. These roads prioritize bicyclists and typically include speed and traffic volume management measures, such as intersection ROW control, to discourage motor vehicle traffic.

4.16.1.4 Public Transit

Public transportation is a vital part of the circulation system within the Planning Area. Transit expands mobility options to citizens that may not be able to afford or physically operate other means of travel, while some choose not to drive. Figure 4.16-2 presents existing transit facilities located within the Planning Area.

a. Riverside Transit Agency

The Riverside Transit Agency ("RTA") provides the majority of public transportation within the Planning Area via fixed route and paratransit bus services. RTA provides routes within the City that connect to major destinations such as the Moreno Valley/March Field Metrolink Station, Perris Station Transit Center, University of California, Riverside ("UCR"), and Moreno Valley Mall. Major bus routes within the Planning Area include routes 11, 16, 18, 19, 19A, 20, and 31. Additionally, RTA has one commuter link express bus route within the City. Route 208 connects the cities of Temecula, Murrieta, Perris, Moreno Valley, and Riverside. Commuter link express bus routes provide peak hour services for commuters in the morning and evening on weekdays. Route 31 also provides connections to Beaumont, Banning, Hemet, and San Jacinto and passengers can transfer in Beaumont to Sunline Route 10 for service to the Coachella Valley. RTA also provides Dial-A-Ride services for seniors and persons with disabilities.

b. Metrolink

Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority ("SCRRA"), providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and downtown Los Angeles. The Moreno Valley/March Field Metrolink Station is located less than one-half mile west of the City limits. The 91/Perris Valley Line ("PVL") train services Metrolink stations in the cities of Perris, Riverside, Corona, Fullerton, Buena Park, Norwalk/Santa Fe Springs, and Los Angeles. The establishment of the PVL was a joint effort of RCTC and Federal Transit Administration ("FTA"). The 24-mile extension of the PVL was the first major enhancement to the route network in 14 years.

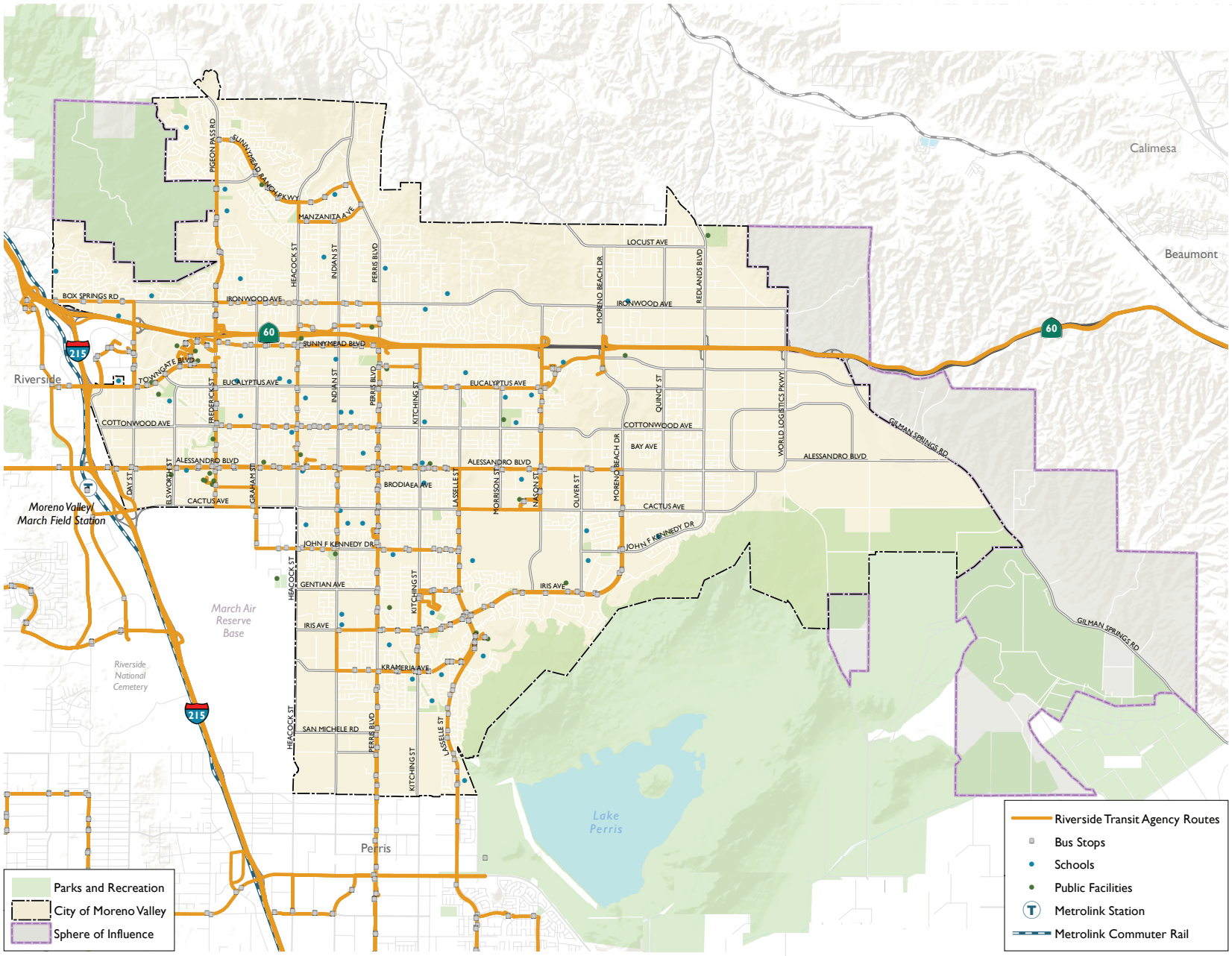


FIGURE 4.16-2: TRANSIT LINES AND FACILITIES

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

The Metrolink 10-Year Strategic Plan (2015-2025) indicates that through a partnership with Los Angeles County Metropolitan Transportation Authority ("LA Metro"), Metrolink will experiment with lower fares across the board and targeted discounts on shorter distance trips with the goal to increase ridership and revenue. According to Metrolink data, passenger boardings and average weekday ridership on PVL increased between Fiscal Year 2021-22 and Fiscal Year 2023-24.[1] Through 2025, ridership growth on the PVL is expected to increase between approximately 54 percent and 151 percent, depending on enhancements of the existing network and overlay of additional service patterns through 2025.[2]

4.16.2 Applicable Regulatory Requirements

4.16.2.1 State Regulations

a. AB 1358 (Complete Streets)

In 2008, the State passed the California Complete Streets Act (AB 1358), requiring circulation elements to include a "Complete Streets" approach that balances the needs of all users of the street. Complete Streets are streets designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. The precise definition of a Complete Street can vary depending on the context and primary roadway users, but there are some common elements found in successful Complete Streets policies. These policies consider the needs of all users of the street in the planning, design, construction, operation, and maintenance of transportation networks. This framework allows policymakers to shift the goals, priorities, and vision of local transportation planning efforts by emphasizing a diversity of modes and users.

b. SB 375 (Sustainable Communities and Climate Protection Act)

The Sustainable Communities and Climate Protection Act, or Senate Bill ("SB") 375, provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal is to reduce the number and length of automobile commuting trips, helping to meet the Statewide targets for reducing greenhouse gas emissions set by AB 32.

SB 375 requires each Metropolitan Planning Organization to add a broader vision for growth to its transportation plan through development of a Sustainable Communities Strategy ("SCS"). The SCS must lay out a plan to meet the region's transportation, housing, economic, and environmental needs in a way that enables the area to lower greenhouse gas emissions. The SCS should integrate transportation, land use, and housing policies to plan for achievement of the emissions target for each region. The latest Southern California

[1] Metrolink Southern California Regional Rail Authority, Adopted Budget Fiscal Year 2023-2024, Adopted June 23, 2023, Exhibit 3.1a, https://metrolinktrains.com/globalassets/about/financial-reports/adopted-budget/fy23-24-adopted-budget-fy25-28-projections.pdf. Accessed April 2025.

[2] Growth is based on the 2015 existing average daily ridership of 2,467. This data is from the Metrolink 10 Year Strategic Plan (2015-2025).

Association of Governments ("SCAG") 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy ("RTP/SCS"), 2024 Connect SoCal, was adopted in April 2024.

For consistency with the regional planning objectives of the 2024 RTP/SCS, the City considered the following during development of the 2024 GPU:

- Encourage residential and employment development in areas surrounding existing and planned transit/rail stations.
- Pursue the development of Complete Streets that comprise a safe, multimodal network with flexible use of public right-of-way for people of all ages and abilities using a variety of modes (e.g., people walking, biking, rolling, driving, taking transit).
- Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of adding roadway capacity, where possible.
- Encourage jurisdictions and transportation demand management ("TDM") practitioners to develop and expand local plans and policies to promote alternatives to single occupancy vehicle travel for residents, workers, and visitors.
- Encourage housing development in areas with access to important resources and amenities (economic, educational, health, social, and similar) to further fair housing access and equity across the region.
- Encourage housing development in transit-supportive and walkable areas to create more interconnected and resilient communities.
- Seek to realize scale economies or a critical mass of jobs and destinations in areas across the region that can support

c. SB 743 (General CEQA Reform, VMT)

SB 743, which was signed into law on September 27, 2013, seeks to balance the needs of congestion management, infill development, public health, greenhouse gas reductions, and other goals. The Governor's Office of Land Use and Climate Innovation ("LCI"), formally known as the Office of Planning and Research, released the *Technical Advisory on Evaluating Transportation Impacts in CEQA*[3] in December 2018. Western Riverside Council of Governments ("WRCOG") released the *WRCOG SB 743 Implementation Pathway*[4] in March 2019, a guiding document for VMT analysis methodology, thresholds, and mitigation strategies for transportation impact evaluation for WRCOG agencies such as Moreno Valley. Furthermore, for the California Environmental Quality Act (CEQA) process, this bill eliminates measures such as auto delay, level of service ("LOS"), and other vehicle-based

[3] California Office of Land Use and Climate Innovation, Technical Advisory on Evaluating Transportation Impacts in CEQA, http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed March 21, 2025.

[4] Fehr and Peers, WRCOG SB 743 Implementation Pathway, https://www.fehrandpeers.com/wp-content/uploads/2019/12/WRCOG-SB743-Document-Package.pdf. Accessed March 21, 2025.

measures of capacity in many parts of California. Instead, other measurements such as VMT are to be utilized to measure impacts.

4.16.2.2 Regional Regulations

a. Transportation Demand Management

TDM refers to a comprehensive strategy to reduce driving and resulting VMT by promoting alternatives such as public transit, carpooling, bicycling, walking, and telecommuting. While some TDM measures can be undertaken by the City, such as investments in facilities and programs to encourage alternative modes of transportation, other TDM measures require collaboration with others, for example with transit providers to seek expanded service, or with employers to encourage flexible work schedules and the provision of on-site childcare, preferential carpool parking, and subsidized transit passes.

SCAG has developed a long-range planning vision to balance future mobility and housing needs with economic, environmental, and public health goals. SCAG's 2024 RTP/SCS has allocated $7.3 billion through 2050 to implement TDM strategies throughout the region. There are three primary goals of SCAG's TDM program:

- Reduce the number of single-occupant vehicle trips and per capita VMT through ridesharing (which includes carpooling and vanpooling) and providing first/last mile services to and from transit;

- Redistribute or eliminate vehicle trips during peak demand periods by supporting telecommuting and alternative work schedules; and

- Reduce the number of single-occupant vehicle trips through use of other modes such as transit, rail, bicycling, and walking, or other micro-mobility modes.

Additionally, WRCOG, of which the City is a member agency, has identified the following key strategies for TDM as most appropriate in the WRCOG subregion:

- Diversifying land use;
- Improving pedestrian networks;
- Implementing traffic calming infrastructure;
- Building low-stress bicycle network improvements;
- Encouraging telecommuting and alternative work schedules; and
- Providing ride-share programs.

b. Riverside County Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California, including Riverside, to prepare a Congestion Management Plan ("CMP"). The RCTC prepared the County's CMP in consultation with the County of Riverside

and the cities within Riverside County.[5] The CMP seeks to align land use, transportation, and air quality management efforts in order to promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements.

The focus of the CMP is the development of an Enhanced Traffic Monitoring System, which would allow RCTC to access real-time traffic count data to evaluate the condition of the Congestion Management System ("CMS"), as well as to meet other monitoring requirements at the state and federal levels. RCTC's Long Range Transportation Study, approved in 2019, incorporates the State and federal Congestion Management Process requirements into the plan, including performance standards, conformance, monitoring, deficiency plan process, and management strategies.

Per the LOS target of "E" adopted by RCTC, when a CMS segment falls to "F," a deficiency plan must be prepared by the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency will also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including TDM strategies and transit alternatives, and a schedule of mitigating the deficiency. To ensure that the CMS is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies to consider the traffic impacts on the CMS when reviewing and approving development proposals.

c. Measure A (Riverside County Half-Cent Sales Tax)

In November 1988, Riverside County voters approved Measure A, a one-half cent increase in sales tax over a 20-year period to be used for transportation purposes. A major factor contributing to the support of Measure A was the "return to source" concept, which requires the additional sales tax revenue generated in a specific geographic area be used to finance projects within that same area.

The program has been so successful that in November 2002, Riverside County voters approved a 30-year extension of Measure "A" (2009-2039). Despite its success, Measure A funds only contribute a portion of the transportation improvements necessary to prevent a potential breakdown of the regional transportation system.

4.16.3 Methodologies for Determining Impacts

Kimley-Horn and Associates, Inc. (Kimley-Horn) completed a VMT Assessment (see Appendix E) consistent with the requirements of SB 743 and the *City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June 2020).

[5] Riverside County Transportation Commission (RCTC), 2011 Riverside County Congestion Management Program, December 14, 2011, https://www.rctc.org/wp-content/uploads/media_items/congestionmanagementprogram.original.pdf. Accessed April 2, 2025.

The impact analysis also evaluated how the proposed transportation network improvement and 2024 GPU goals and policies would serve to improve transportation conditions under Project buildout in 2040.

4.16.4 Basis for Determining Significance

Thresholds used to evaluate impacts to transportation are based on applicable criteria in the CEQA Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the Project would:

1) Conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

4) Result in inadequate emergency access.

4.16.5 Impact Analysis

4.16.5.1 Topic 1: Circulation System

Would the project conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Figure 4.16-3 presents the proposed circulation network. As the Planning Area continues to experience residential, employment, and commercial growth, a connected, multi-modal street network would be essential to ensure efficient commutes for work and goods movement, safe active transportation, and easy access to retail and entertainment.

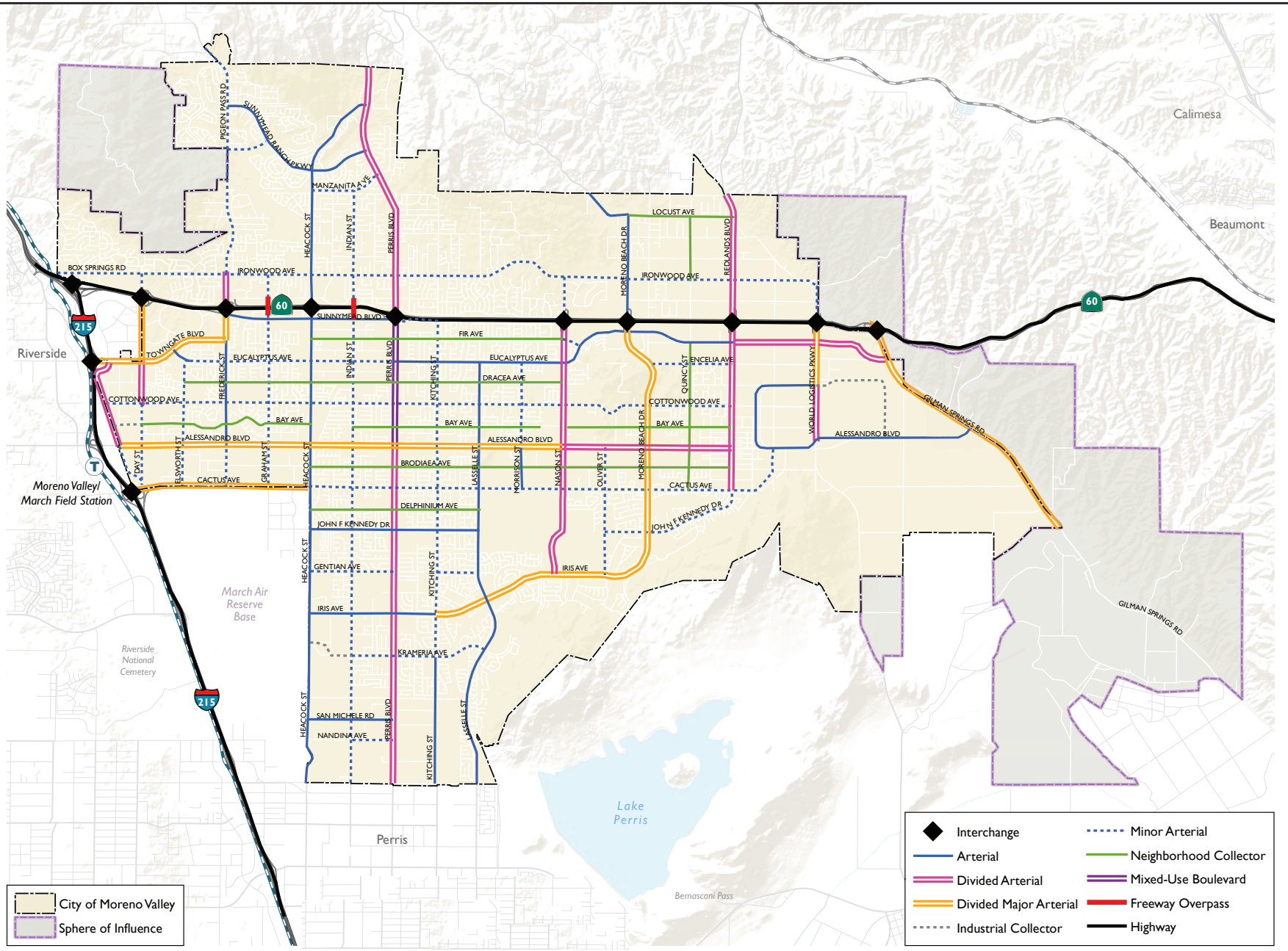


FIGURE 4.16-3 PROPOSED CIRCULATION NETWORK

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

The 2024 GPU proposes a "layered network" approach, where traffic demands of the Planning Area and system-wide needs of different modes can be used as inputs as streets are redesigned and configured to better meet the needs of bicyclists, pedestrians, and transit, and enable everyone to efficiently and safely navigate through the Planning Area. Considering system-wide needs means assessing whether the system as a whole is able to meet the needs of travelers. The layered network approach designates modal emphasis by street to create a comprehensive street network. The layered network approach recognizes the need to accommodate all forms of traffic, but with the understanding that certain streets would emphasize certain forms of transportation. Layered networks balance vehicular transportation with "active transportation," which is human-powered transportation that includes walking, cycling, using a wheelchair, in-line skating, or skateboarding. The layered network approach recognizes that not all modes can be accommodated acceptably on all streets within this City, but bicycle and pedestrian movement can be emphasized on specific streets. The layered network would also help ensure consistency with the California Complete Streets Act passed in 2008.

a. Circulation Network

The regional transportation projects listed below have broad regional significance and would reduce congestion within the Planning Area by increasing capacity of the regional transportation network:

- SR 60 Truck Lanes Project: 4.5-mile widening project on SR 60 between Gilman Springs Road and 1.4 miles west of Jack Rabbit Trail in the unincorporated Riverside County Badlands. This project will enhance the mobility and safety of SR 60 through the Badlands and improve trucking accessibility from Moreno Valley to the east. This project opened its new lanes in 2022.

- I-215 High Occupancy Vehicle ("HOV") Lanes Project: 11-mile widening project on I-215 to add HOV lanes in each direction from Box Springs Road in Moreno Valley to Nuevo Road in Perris. This project is anticipated to improve travel time on I-215 and is part of a long-term construction effort by the RCTC.

- Mid County Parkway Project: Also known as Community and Environmental Transportation Acceptability Process ("CETAP") East, a 16-mile transportation corridor to relieve traffic congestion in southwestern Riverside County near San Jacinto and Perris. This project is anticipated to improve travel time between SR 79 and I-215 and provide connections that support multimodal transportation. Construction is expected to begin in early 2026.

- CETAP West: 16-mile westerly extension of Mid County Parkway between I-15 in Corona and I-215 in Perris. This proposed project will provide an additional alternative east-west corridor from SR 91 between I-15 and I-215.

- Cajalco Road Improvement Project: 16-mile transportation corridor to relieve traffic congestion in southwestern Riverside County near Corona and Perris. This project

will provide an alternative east-west corridor to SR-91 between I-15 and I-215. This project is expected to begin construction in 2028.

- The Ethanac Road Improvement Project – 10-mile widening and realignment of the Ethanac corridor from I-15 in Lake Elsinore to I-215 in Perris. This project will provide additional east-west capacity and ease congestion on I-215.

The proposed circulation network would also implement the major roadway improvement projects listed below that are underway or planned. This is not an exhaustive list of all improvement projects, but highlights significant local improvement projects critical to the City's success.

- Eucalyptus Avenue Extension: Eucalyptus Avenue is the existing connection between Redlands Boulevard and World Logistics Parkway Street. The planned changes include the construction of three through lanes (two lanes in the westbound direction and one lane in the eastbound direction), the addition of medians, left-turn pockets, dedicated right-turn lanes, drainage improvements, landscaping, sidewalks, and a Class I bike path.

- Widening of Alessandro Boulevard: Alessandro Boulevard is planned to be widened from two to four lanes between Nason Street and Redlands Boulevard, and then approximately a half mile east of Redlands Boulevard to Gilman Springs Road, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right turn, drainage, landscaping, sidewalks, bike lanes, and trails.

- Widening of Gilman Springs Road: Gilman Springs Road is planned to be widened from two to six lanes between SR 60 and Alessandro Boulevard, a project over five miles long. The improvements include medians, traffic signals, channelization, left-turn pockets, dedicated right-turn lanes, drainage, landscaping, sidewalks, and bike lanes.

- Gilman Springs Interchange Improvement: The Gilman Springs Road/SR 60 interchange improvement plans include the realignment of Gilman Springs Road and the removal of the existing eastbound and westbound ramps. The plans include widening the overcrossing from two to six through lanes, the westbound exit ramp from one to two lanes and then to three lanes at the arterial, and the westbound loop and eastbound on-ramps from one lane to two lanes with a HOV lane. The improvements also include the addition of an auxiliary lane to the west of the interchange.

- SR 60 Interchange Improvements: Interchange improvements are proposed, in design and/or going to construction at Redlands Boulevard, World Logistics Center Parkway and Moreno Beach Drive.

Additionally, the 2024 GPU Circulation Element would implement the following goals, policies, and actions to improve the Planning Area circulation network.

Goal

C.1: Strengthen connections to the regional transportation network.

Policies

C.1-1 Support regional infrastructure investments for all modes to relieve congestion and support healthy communities in the City of Moreno Valley.

C.1-2 Maintain ongoing relationships with all agencies that play a role in the development of the City's transportation system.

C.1-3 Cooperatively participate with SCAG, RCTC, WRCOG, and the TUMF [Transportation Uniform Mitigation Fee Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, and planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people, especially projects that directly benefit Moreno Valley.

Actions

C.1-A Advocate for the completion of proposed and planned regional transportation projects as they will alleviate congestion on I-215 and SR-60, and will improve traffic conditions on City streets.

C.1-B Work with property owners, in cooperation with RCTC, to reserve rights-of-way for freeways, regional arterial projects, transit, bikeways, and interchange expansion and potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.

C.1-C Pursue grant funding, including for major projects that enhance connectivity to the regional network.

Goal

C-2: Plan, design, construct, and maintain a local transportation network that provides safe and efficient access throughout the City and optimizes travel by all modes.

Policies

C.2-1 Design, plan, maintain, and operate streets using complete streets principles for all types of transportation projects including design, planning, construction, maintenance, and operations of new and existing streets and facilities. Encourage street connectivity that aims to create a comprehensive, integrated, connected network for all modes.

C.2-2 Implement a layered network approach by prioritizing conflicting modes, such as trucks and bicyclists, on alternative parallel routes to provide safe facilities for each mode.

C.2-3 Work to eliminate traffic-related fatalities and severe injury collisions by developing a transportation system that prioritizes human life on the roadway network.

C.2-4 Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.

C.2-5 Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.

C.2-6 Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.

C.2-7 Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.

C.2-8 For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.

C.2-9 Require connectivity and accessibility to a mix of land uses that meets residents' daily needs within walking distance. Typically, this means creating walkable neighborhoods with block lengths between 330 feet and 660 feet in length, based on divisions of the square mile grid on which the city is laid out.

C.2-10 Ensure that complete streets applications integrate the neighborhood and community identity into the street design and retrofits. This can include special provisions for pedestrians and bicycles that complement the context of each community.

C.2-11 Incorporate traffic calming design into local and collector streets to promote safer streets.

C.2-12 Recognize the need for modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.

Actions

C.2-A Update Standard Plan cross-sections consistent with best practices and to address new cross-sections adopted in the Circulation Diagram (Neighborhood Collector and Mixed-Use Boulevard).

C.2-B Continue to implement the Bicycle Master Plan to provide low-stress bicycle network improvements citywide, and update the plan periodically as needed.

C.2-C Develop curb space management guidelines that incorporate best practices and strategies for deliveries and drop-offs in commercial and mixed-use areas.

C.2-D Invest in critical infrastructure and implement pilot programs to leverage new transportation technology.

C.2-E Establish uniform, transparent and anonymized data-sharing to assist mobility informed decision-making while maintaining people's privacy.

C.2-F As new transportation technologies and mobility services, including connected and autonomous vehicles, electric vehicles, electric bicycles and scooters, and transportation network companies (e.g., Uber and Lyft) are used by the public, review and update City policies and plans to maximize the benefit to the public of such technologies and services without adversely affecting the City's transportation network. Updates to the City's policies and plans may cover topics such as electric vehicle charging stations, curb space management, changes in parking supply requirements, shared parking, electric scooter use policies, etc.

C.2-G Research best management practices for new designs, improvements, and infrastructure upgrades such as Autonomous Vehicle (AV) sensors in the roadway and lane striping to promote safety, smart infrastructure that can communicate with vehicles and vice versa, and in road electrification of vehicles. Consider developing standards to designate AV parking areas separate from standard parking areas, where AVs have the ability to stack park when not in use.

C.2-H Evaluate opportunities to implement roundabouts as traffic control as new development projects are proposed, considering safety, traffic calming, cost, maintenance and greenhouse gas reduction related to idling.

Goal

C-3: Manage the City's Transportation System to minimize congestion, improve flow, and improve air quality.

Policies

C.3-1 Strive to maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Strive to maintain LOS "D" at intersections during peak hours.

C.3-2 Allow for a list of locations to be exempt from the LOS policy based on right-of-way constraints and goals and values of the community. The City Engineer shall update the exempted intersections and roadway segments list periodically to be included with the traffic impact study guidelines and adopted by ordinance.

C.3-3 Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible improvement measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate additional left-turn and right-turn lanes at intersections, or other improvements.

C.3-4 Require development projects to complete traffic impact studies that conduct vehicle miles traveled analysis and level of service assessment as appropriate per traffic impact study guidelines.

C.3-5 Manage freeway bypass traffic during peak commute hours from SR-60 and I-215 through traffic signal timing coordination and Intelligent Transportation Systems (ITS) to limit impact on City streets.

C.3-6 Require new developments to participate in Transportation Uniform Mitigation Fee Program (TUMF), the Development Impact Fee Program (DIF) and any other applicable transportation fee programs and benefit assessment districts.

C.3-7 Support regional efforts for the development of a VMT mitigation impact fee program.

C.3-8 Ensure that new development pays a fair share of costs to provide local and regional transportation improvements and to mitigate cumulative traffic deficiencies and impacts.

C.3-9 Employ parking management strategies, such as shared parking in mixed use areas, on-street residential parking, and spill-over parking to avoid construction of unnecessary parking.

C.3-10 Require traffic and parking management plans for major events to utilize travel demand management strategies encouraging transit and other alternatives to single occupant vehicles to limit the impact to City Streets.

C.3-11 Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.

C.3-12 Evaluate opportunities to incorporate new materials, technologies or design features that improve performance of the circulation system.

C.3-13 Promote efficient circulation planning at schools, partnering with the local school districts to optimize school drop-off/pick-ups.

Actions

C.3-A Periodically review and update traffic impact study guidelines for vehicle miles traveled and level of service assessment.

C.3-B Periodically collect traffic count data to support existing traffic operations and future infrastructure.

C.3-C Update the City's standard roadway cross-sections and standard plans to reflect state-of-the-practice in safe and efficient roadway design.

C.3-D Update ITS Master Plan to include latest technology and innovations, and continue investment to expand ITS and citywide camera system.

The City also utilizes Intelligent Transportation Systems ("ITS") to improve roadway circulation, which refers to a set of tools that facilitates a connected, integrated transportation system. Applications of ITS include adaptive traffic prioritization signals aimed at congestion management and improving traffic flow, and the collection and dissemination of real-time travel information such as transit arrivals or traffic incident alerts. Other applications of ITS to be considered as transportation patterns change and emerging technologies come online may include connected and autonomous vehicles and smart city integration, which utilizes advanced technology to enhance urban infrastructure through the use of data analysis, integrated non-vehicular travel, and smart mobility.

The City currently has an Advanced Traffic Management System ("ATMS") that allows staff to monitor traffic at strategic locations throughout the City. The system allows for the transportation system to work more effectively and efficiently by providing the ability to adjust critical traffic signals from the City's Transportation Management Center ("TMC"). These tools allow the City to effectively monitor and address congestion issues.

Additionally, the City's Intelligent Transportation System incorporates innovative field infrastructure including fiber-optic communication media and end equipment, closed-circuit television cameras, permanent Dynamic Message Signs ("DMS"), advanced transportation controllers, and video and radar traffic signal detection. The City is able to differentiate between vehicles, bicyclists and pedestrians, helping traffic to flow more efficiently and improving safety for all road users. The City also has the ability to provide signal priority for buses on heavy transit corridors. Utilization of these tools, as well as implementation of the roadway improvements and goals, polices, and actions described above would improve the circulation network through 2024 GPU buildout in 2040. Therefore, the Project would not conflict with a plan, ordinance, or policy addressing roadway circulation, and impacts would be less than significant.

b. Pedestrian and Bicycle Network

The City adopted a Bicycle Master Plan in November 2014, which recommends bicycle programs to improve facilities that can make it safer for users of all ages and abilities to ride a bicycle on City streets. Existing high traffic volume arterials and truck routes can conflict

with existing and proposed bicycle routes throughout the City. The City's Bicycle Master Plan and Circulation Element have identified parallel east-west corridors (Neighborhood Collectors) to provide low-stress alternatives to riding on arterials as part of the layered network. The City still provides bicycle facilities on most major arterials and additional buffers/protection is recommended on high speed/volume roadways, especially along truck routes to limit conflicts. Additional bicycle infrastructure in congested areas, such as bicycle signal heads, traffic signal bicycle detection, green bicycle lanes, and two-stage turn queue boxes can further enhance bicycle facilities on high-stress corridors. Additionally, the 2024 GPU Circulation Element would implement the following goals, policies, and actions to improve the bicycle and pedestrian circulation.

Goal

C-4: Provide convenient and safe connections between neighborhoods and destinations within Moreno Valley.

Policies

C.4-1 Support the development of highspeed transit linkages or express routes connecting major destinations within the city and beyond, including the Metrolink Station, that would benefit the residents and employers in Moreno Valley.

C.4-2 Collaborate with major employers and other stakeholders to improve access and connectivity to key destination such as the Downtown Center, the Moreno Valley Mall, the hospital complexes, Moreno Valley College, and the Lake Perris State Recreation Area.

C.4-3 Support the establishment of a Transit Center/Mobility Hub in the Downtown Center.

C.4-4 All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.

C.4-5 Recognize that high-speed streets, high-volume streets and truck routes can increase pedestrian and bicycle stress levels and decrease comfortability. Provide increased buffers and protected bicycle lanes in high-stress areas, where feasible. Provide landscaped buffers where feasible to separate pedestrian environments from the travel way adjacent to motor vehicles. Provide convenient and high-visibility crossings for pedestrians.

Actions

C.4-A Prepare and maintain a Pedestrian Access Plan supporting a safer and more convenient network of identified pedestrian routes with access to major employment centers, shopping districts, regional transit centers, schools, and

residential neighborhoods; the plan should address safer routes to schools, safer routes for seniors, and increase accessibility for persons with disabilities.

C.4-B The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

C.4-C Continue ongoing coordination with transit authorities toward the expansion of transit facilities into newly developed areas.

C.4-D Work with major employers, the hospital complexes, and Moreno Valley College to study alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C.4-E Pursue regional, state and federal grant opportunities to fund design and construction of the City bikeway system.

C.4-F Periodically review and update citywide wayfinding strategy that enhances access to key destinations, including Moreno Valley College, Riverside University Medical Center, Kaiser, and Lake Perris State Recreation Area.

Goal

C-5: Enhance the range of transportation operations in Moreno Valley and reduce Vehicle Miles Traveled.

Policies

C.5-1 Work to reduce VMT through land use planning, enhanced transit access, localized attractions, and access to non-automotive modes.

C.5-2 Encourage public transportation that addresses the particular needs of transit-dependent individuals, including senior citizens, the disabled, and low -income residents.

C.5-3 Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.

C.5-4 Particularly in corridors and centers, work with transit service providers to provide first-rate amenities to support pedestrian, bicycle and transit usage, such as bus shelters and benches, bike racks on buses, high-visibility crossings, and modern bike storage.

C.5-5 Encourage local employers to implement TDM strategies, including shared ride programs, parking cash out, transit benefits, allowing telecommuting and alternative work schedules.

Actions

C.5-A Keep the City's traffic impact study guidelines current and revise the CEQA threshold of significance for VMT as appropriate.

C.5-B Maintain a list of recommended Transportation Demand Management (TDM) strategies for employers and new developments.

C.5-C Remain flexible in the pursuit and adoption of transportation funding mechanisms that fund innovative transportation solutions.

C.5-D Work with RTA and Metrolink to increase transit service frequency, speed, and reliability and increase ridership. Strengthen linkages and access to the Metrolink Station.

C.5-E Integrate transit access and information systems into employment centers, major destinations and new multi-family residential development.

C.5-F Develop a Park Once strategy to promote walkability in mixed use centers and corridors.

C.5-G Study the feasibility of implementing car-sharing program, working with established providers.

The 2024 GPU would also implement future pedestrian and bicycle facilities as shown in Figure 4.16-1 above. Therefore, the Project would not conflict with a plan, ordinance, or policy addressing pedestrian and bicycle circulation, and impacts would be less than significant.

c. Public Transit

To improve transit connectivity, the City will work with other local agencies to increase transit access through a combination of new routes and/or higher service frequency, expanded hours, and making the public transit experience more user friendly and attractive, such as through improved bus shelters that offer cooling/shade from the sun during drier months and protection against rainy/cold conditions during wetter months. As the City expands its transit offerings, the City will help support the prioritization of needs of seniors, minorities, low-income, disabled, and transit-dependent residents to ensure that everyone can make the trips they need to live, work, and play to their fullest potential.

Given that the majority of the Planning Area is of a suburban, low-density character, expanding public transit routes would likely be an inefficient method of attracting greater transit ridership. Other methods of attracting ridership could include focusing on providing high-quality service between employment centers and mixed-use destinations along the major corridors of the City, supplemented with features such as park-n-rides and pedestrian and bicycle infrastructure to create multi-modal transportation nodes, and coordinating with transit providers to promote bus user satisfaction through strategies such as reduced headways and improved on-time performance. Additionally, the 2024 GPU Circulation

Element would implement the policies, and actions described above under goals C-4 and C-5 to improve public transit within the Planning Area. Therefore, the Project would not conflict with a plan, ordinance, or policy addressing transit circulation, and impacts would be less than significant.

4.16.5.2 Topic 2: Vehicle Miles Traveled

Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as LOS. The change in the focus of transportation analysis is the result of SB 743, as detailed in 4.16.2.1.

a. Vehicle Miles Traveled Modeling

The VMT Assessment utilized RIVCOM to estimate VMT under buildout of the 2024 GPU. As discussed therein, to update RIVCOM's base year conditions (2018) to align more closely with the Project's baseline (2024), Kimley-Horn collected data on development projects constructed and operational between 2018 and 2024. The City identified these projects based on records of project approvals. The initial list included projects at various stages: pending approval, approved but not built, under construction, or fully built and occupied. The full list included 218 records and was consolidated to include projects that were determined to be constructed and operational at the time of the records review. A total of 34 projects were determined to be constructed and occupied; however, 5 of these projects were not considered as part of the baseline due to the following factors: the added square footage was so small it contributed negligible employment or households, or the nature of the project did not contribute to additional employment or households. Only 29 were considered as fully constructed and occupied. Of these 229 projects, only 23 were used to define the baseline for the non-industrial projects. Six industrial projects were identified by the City as built and occupied. Additionally, for the industrial projects, Kimley-Horn utilized Near Map satellite images (dated to August 2024) to identify areas throughout the City that were developed with industrial uses. The compilation of Near Map images is compiled and included in Appendix G. The 2024 GPU would have a projected buildout population size of 298,440. The 2024 GPU anticipates a shift in the employment makeup in the City from retail/commercial to light industrial. VMT modeling for buildout of the 2024 GPU was updated to reflect the existing and proposed circulation networks. Table 4.16-4 presents the results of these VMT modeling scenarios.

Table 4.16-4 RIVCOM Model Inputs for General Plan Scenarios			
Land Use	2024 Baseline	2040 GPU	2024 Baseline – 2040 GPU Delta
Population	205,620	298,440	92,820
Household	53,048	86,860	33,812
Commercial/Retail Employment	47,020	59,621	12,601
Office Employment	1,410	7,233	5,823
Industrial Employment	16,873	37,442	21,291
Total Employment[1]	65,378	104,371	61,173

SOURCE: Kimley-Horn and Associates, Inc., 2025.
1. Employment data for the 2024 Baseline includes Agricultural employment which is not depicted as a category in this table. Employment without agricultural would equal to approximately 65,303.

The *City of Moreno Valley Traffic Impact Preparation Guide*[6] (June 2020) includes the following thresholds of significance:

1. A project would have a significant VMT impact if, in the Existing Plus Project scenario, its net VMT per capita (for residential projects) or per employee (for office and industrial projects) exceeds the per capita VMT for Moreno Valley. For all other uses, a net increase in VMT would be considered a significant impact.

2. If a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence. If it is not consistent with the RTP/SCS, then it would have a significant VMT impact if:

    a. For residential projects its net VMT per capita exceeds the average VMT per capita for Moreno Valley in the RTP/SCS horizon-year.

    b. For office and industrial projects its net VMT per employee exceeds the average VMT per employee for Moreno Valley in the RTP/SCS horizon year

    c. For all other land development project types, a net increase in VMT in the RTP/SCS horizon-year would be considered a significant impact.

The *City of Moreno Valley Traffic Impact Preparation Guide* notes that the Cumulative No Project scenario shall reflect the adopted RTP/SCS. Therefore, if a project is consistent with the regional RTP/SCS, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence.

[6] City of Moreno Valley Transportation Engineering Division, Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment. https://www.moval.org/departments/public-works/transportation/TIA-Guidelines.pdf. Accessed March 18, 2025.

As these thresholds were not intended to specifically address the appropriate methodology and metric for a general plan, the following threshold of significance is used to evaluate the 2024 GPU:

> Any increase in the VMT as of 2040 per Service Population/Resident/Employee calculated using the Boundary Method, Production/Attraction Method, or Origin/Destination method compared to the Existing Baseline would be considered a significant impact.

VMT can be presented as total VMT or as VMT per service population, resident, or employee. Total VMT represents all VMT generated in the City on a typical day, while VMT per service population, resident, or employee is an efficiency metric that represents VMT generated on a typical day per person who lives and/or works in the City. VMT per person can be measured as VMT per resident for residential only projects, VMT per employee for employment only projects, and VMT per service population for projects and land use plans which include both residential and employment uses. Total VMT gives an estimate of the total travel, while VMT per person measures the efficiency of travel. Total VMT and VMT per person estimates were calculated using the three methodologies described below.

Production/Attraction VMT: The Production/Attraction ("PA") method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area while trips are still tracked by trip purpose. The PA method tracks trips with at least one trip end to/from their ultimate destination unless that destination is outside of the model boundary area (e.g., outside of the SCAG region). Productions are land use types that generate trips (residences) and attractions are land use types that attract trips (employment). Productions and attractions are converted from person trips to vehicle trips for the purposes of calculating VMT.

The PA method allows project VMT to be evaluated based on trip purpose which is consistent with the Governor's LCI recommendations in the Technical Advisory and the City's guidelines. For example, a single-use project such as an office building could be analyzed based only on the commute VMT, or home-based-work attraction ("HBW-A") VMT per employee, and a residential project could be analyzed based on the home-based production (HB-P) VMT per resident. PA matrices do not include external trips that have one trip end outside of the model boundary ("IX-XI trips") or truck trips, and therefore do not include those trips in the VMT estimates. This is not consistent with the LCI recommendations that suggest full accounting of VMT should be completed.

Origin/Destination VMT: The Origin/Destination ("OD") method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations. The OD method is completed after the final loops of assignment in the travel demand model after person trips are converted to total vehicle trips. Origins are all vehicle trips that start in a specific traffic analysis zone, and destinations are all vehicle trips that end in a specific traffic analysis zone.

The OD method accounts for external and truck trips and therefore provides a more complete estimate of all VMT within the study area. This methodology also estimates VMT consistent

with VMT estimates in air quality, noise, and energy sections of an EIR. Unfortunately, OD trip matrices do not separate trips by trip purpose, and therefore VMT cannot be calculated by HBW-A VMT per employee or HB-P VMT per resident, but only by total VMT. It should also be noted that, although VMT includes trips to/from the City that originate or are destined to locations outside of the model area, those trip lengths are artificially truncated at the model boundary.

Boundary Method VMT: The boundary method is the sum of all weekday VMT on a roadway network within a designated boundary.[7] The boundary method estimates VMT by multiplying the number of trips on each roadway segment by the length of that segment. This approach includes all trips, including those trips that do not begin or end in the designated boundary and is another way to summarize VMT. This is the only VMT method that captures the effect of cut-through and/or displaced traffic. The boundaries utilized in the assessment below is the City boundary and WRCOG boundary. The two boundaries provide a focused assessment specific to Moreno Valley while also reviewing the effect of uses in at the edge of the City that may be truncated by the City boundary.

b. Vehicle Miles Traveled Estimates

Table 4.16-5 presents the results of the VMT modeling described above. The bullet list below summarizes the results of the VMT modeling:

- Home-Based Work Attraction ("HBW-A") VMT/Employee and OD VMT/Service Population are forecasted to decrease under Project buildout (2040) as compared to the Existing Baseline (2024).
- City Boundary VMT/Service Population and the Home-Based Production ("HB-P") VMT/Resident for the Project is higher than the Existing Baseline's within the Moreno Valley City boundary and lower within the WRCOG boundary.

These findings show that the 2024 GPU would exceed thresholds of significance related to VMT, resulting in an increase in total VMT and VMT per Service Population based on several methods.

[7] LCI recommends against using "arbitrary" boundaries such as City or County lines, however the model-wide results would include all six counties in the model. The addition of a single project in such a large area would be negligible. The only way to distinguish between no project and plus project results to determine the effect on VMT is to set a boundary at a scale where the effect on VMT from an individual project can be measured. Therefore, Kimley-Horn recommends the City or sub-regional level boundary would be an appropriate scale for this methodology.

Table 4.16-5
VMT Summary

Land Use	2024 Baseline	2040 Proposed General Plan
Population	205,620	298,440
Employment	65,378	104,371
Service Population (SP)[1]	270,998	402,811
Total OD VMT	8,846,399	**12,669,735**
OD VMT/SP[2]	32.64	31.45
HB-P VMT[3]	2,903,419	**4,439,163**
HB-P VMT/Resident	14.12	**14.87**
HBW-A VMT[4]	1,719,510	**2,477,198**
HBW-A VMT/Employee	26.30	23.73
City Boundary VMT	2,759,935	4,270,239
City Boundary VMT/SP	10.18	**10.60**
WRCOG Boundary VMT	46,453,742	**64,805,367**
WRCOG Boundary VMT/SP[5]	18.71	18.01

SOURCE: Kimley-Horn and Associates, Inc., 2025.
1. SP = Service Population; the sum of population and employment.
2. OD = Origin/Destination; a method for calculating VMT that sums all weekday VMT generate by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations.
3. HB-P VMT = Home-based production VMT; VMT generated by trips originating or ending at homes in Moreno Valley.
4. HBW-A = Home-based-work attraction VMT; VMT generated by trips originating or ending at employment centers in Moreno Valley.
5. Land use assumptions for WRCOG are provided as Attachment B of Appendix E.

The VMT Assessment reached the following conclusions based on the results of the VMT modeling described above:

- OD VMT/SP under buildout of the 2024 GPU (2040) would increase compared to existing baseline (2024).

The City Boundary VMT and Boundary VMT/SP are higher at buildout of the 2024 GPU (2040) than the existing baseline (2024). The modeling results and conclusions described above do not include any VMT reduction associated with TDM policies and actions under goals C-2 and C-3 of the 2024 GPU Circulation Element described in Section 4.16.5.1 above, or the TDM policies and actions under goals C-4 and C-5 of the 2024 GPU Circulation Element described in Section 4.16.5.3 below. However, it is not anticipated that VMT reductions associated with proposed TDM measures would be large enough to guarantee that significant impacts could be fully mitigated. Based on the increase in OD VMT/SP, City Boundary VMT, City Boundary VMT/SP, and WRCOG Boundary VMT, shown in bold in Table 4.16-5, implementation of the Project would exceed the established threshold of significance. Therefore, projected VMT generated under buildout of the Project would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). This would be considered a significant and unavoidable impact.

4.16.5.3 Topic 3: Hazards Due to a Design Feature

Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The 2024 GPU includes policies and actions described above that would ensure future transportation facilities would not introduce hazards onto the circulation network. Policy C.2-5 would prohibit points of access from conflicting with other existing or planned access points and require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow. Action C.2-H would evaluate opportunities to implement roundabouts as traffic control as new development projects are proposed, considering safety, traffic calming, cost, maintenance and greenhouse gas reduction related to idling. Future development and redevelopment would also be subject to applicable City road standards and would be designed consistent with all safety requirements pertaining ingress and egress onto the circulation network. Therefore, the 2024 GPU would not substantially increase hazards, and impacts would be less than significant.

4.16.5.4 Topic 4: Emergency Access

Would the project result in inadequate emergency access?

As described in Section 4.9.5.6 above, the City adopted its Local Hazard Mitigation Plan ("LHMP") on October 4, 2011 (revised 2017). The LHMP contains a map of emergency evacuation routes in the community that includes I-215, SR 60, and major roadways through the City. The evaluation network consists of 129 miles of roadway designated as potential evacuation routes in the event of disaster, including 34 bridges and 127 water crossings. Evacuation times could be improved with the implementation of technological and design strategies. For example, where appropriate, the use of painted medians instead of raised medians on roadways in areas of highest risk would effectively allow for reversible lanes that create additional outbound capacity, unless required to be installed by City Standard Plans. Application of this strategy would approximately double evacuation capacity in the northwestern portion of the City. Further, remote control of signal timing from the City's TMC allows for real-time modifications to signal timing that can speed evacuation in the event of emergency. Approximately half of the traffic signals in the City are currently connected to the TMC, and the 2024 GPU provides for the implementation of this technology in vulnerable areas as a priority going forward. The 2024 GPU also includes policies that provide for exploration of additional actions to facilitate emergency evacuation, including the study of improved roadway connections, including Morton Road/Gernert Road in unincorporated Riverside County to the west of Moreno Valley.

Future development would be designed, constructed, and maintained in accordance with applicable standards associated with the LHMP, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Moreover, future development would be required to adhere to the policies included

in the 2024 GPU Safety Element described in Section 4.9.5.6 above. Additionally, the 2024 Circulation Element identifies roadway improvements that would increase traffic capacity, and thereby ensure that the roadway network would be capable of accommodating traffic flows during emergency response and emergency evacuation. Therefore, adherence to applicable LHMP standards and 2024 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the Project would not result in inadequate emergency access, and impacts would be less than significant.

4.16.6 Cumulative Analysis

The impact analysis described above is cumulative in nature. The 2024 GPU Circulation Element provides a comprehensive framework that would improve the circulation network through Project buildout in 2040. This would include implementing roadway and circulation improvements, new bicycle and pedestrian facilities, improving access to public transit, and utilizing ITS to improve the circulation network. The 2024 GPU includes policies and actions described above that would ensure future transportation facilities would not introduce hazards onto the circulation network, and future development and redevelopment would also be designed consistent with all safety requirements pertaining ingress and egress onto the circulation network. Adherence to applicable LHMP standards and 2024 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the adequate emergency access would be available for the Planning Area. The VMT analysis presented in Section 4.16.5.2 above evaluated future conditions for the entire Planning Area, and therefore was cumulative in nature. Significant impacts related to VMT were identified in Section 4.16.5.2 above, and it is not anticipated that VMT reductions associated with proposed TDM measures would be large enough to guarantee that significant impacts could be fully mitigated. Therefore, projected VMT generated under buildout of the 2024 GPU would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and the Project would result in cumulative impacts related to VMT.

4.16.7 Significance of Impacts before Mitigation

4.16.7.1 Topic 1: Circulation System

The 2024 GPU would implement roadway and circulation improvements, new bicycle and pedestrian facilities, as well as the polices and actions listed under goals C-1 through C-3 in order to improve the circulation network through 2024 GPU buildout in 2040. Therefore, the Project would not conflict with a plan, ordinance, or policy addressing the circulation system, and impacts would be less than significant.

4.16.7.2 Topic 2: Vehicle Miles Traveled

Some methods of analyzing VMT showed an increase in VMT based on several metrics (shown in bold in Table 4.16-5). As a result of some metrics that exceeded the significance criteria based on certain analysis methodologies, impacts would be significant. The 2024 GPU includes TDM goals, policies, and actions that would support VMT reductions; however, anticipated VMT reductions associated with proposed TDM measures would not be large

enough to guarantee that significant impacts could be fully mitigated. Therefore, projected VMT generated under buildout of the 2024 GPU would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). This would be considered a significant and unavoidable impact.

4.16.7.3 Topic 3: Hazards Due to a Design Feature

The 2024 GPU includes policies and actions described above that would ensure future transportation facilities would not introduce hazards onto the circulation network, and future development and redevelopment would also be designed consistent with all safety requirements pertaining ingress and egress onto the circulation network. Therefore, the Project would not substantially increase hazards, and impacts would be less than significant.

4.16.7.4 Topic 4: Emergency Access

Adherence to applicable LHMP standards and 2024 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the Project would not result in inadequate emergency access, and impacts would be less than significant.

4.16.8 Mitigation

4.16.8.1 Topic 1: Circulation System

Impacts would be less than significant. No mitigation is required.

4.16.8.2 Topic 2: Vehicle Miles Traveled

The 2024 GPU has incorporated VMT reducing goals and policies to the extent feasible. No additional mitigation was identified that could reduce VMT impacts. Therefore, impacts would remain significant and unavoidable.

4.16.8.3 Topic 3: Hazards Due to a Design Feature

Impacts would be less than significant. No mitigation is required.

4.16.8.4 Topic 4: Emergency Access

Impacts would be less than significant. No mitigation is required.

4.16.9 Significance of Impacts after Mitigation

4.16.9.1 Topic 1: Circulation System

Impacts would be less than significant. No mitigation is required.

4.16.9.2 Topic 2: Vehicle Miles Traveled

Impacts would be significant and unavoidable.

4.16.9.3 Topic 3: Hazards Due to a Design Feature

Impacts would be less than significant. No mitigation is required.

4.16.9.4 Topic 4: Emergency Access

Impacts would be less than significant. No mitigation is required.

This page intentionally left blank.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). The analysis of Utilities and Service Systems remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.17 Utilities and Service System

This section analyzes the utilities and service system impacts that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area. This analysis relies on secondary sources, regional infrastructure planning documents.

4.17.1 Existing Conditions

4.17.1.1 Water Service

Water service in the Planning Area is provided by two agencies: Eastern Municipal Water District (EMWD) supplies most of the city, except for a 430-acre area in the western portion of the city that is served by Box Springs Mutual Water Company.

a. Metropolitan Water District of Southern California

Metropolitan Water District of Southern California (MWD) supplies water to approximately 18.7 million people in a 5,200-square-mile service area that includes portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties. MWD provides water to the EMWD, which in turn provides water supply to the city (see the discussion of EMWD below).

MWD gets its water from two sources. The first source is the Colorado River, which is connected to MWD's six-county service area through a 242-mile aqueduct, known as the Colorado River Aqueduct (CRA). The CRA system is known as the Central Valley Project, which is operated by the U.S. Bureau of Reclamation and began to deliver water to member agencies beginning in 1941. The second source is water from northern California, which supplies water through a series of dams, aqueducts, pipelines, and other facilities known as the State Water Project (SWP) and is operated by the Department of Water Resources. SWP water deliveries began in 1972.

In June 2016, MWD adopted its 2015 Regional Urban Water Management Plan (UWMP), which evaluated water supply reliability, over a 20-year period, for average, single-dry, and multiple-dry years within its service area. The plan includes estimates of total retail demands for the region and identifies the supplies needed to meet projected demands. MWD's reliability assessment showed that reliable water supplies are available to meet projected demands through the year 2040. The UWMP also identifies a planning buffer supply intended to protect against the risks associated with implementation of local and imported

water supply projects and programs, and for the risk that future demands could be higher than projected. MWD's planning buffer identifies an additional increment of water that potentially could be developed when needed and if other supplies are not fully implemented as planned. As part of the implementation of the planning buffer, MWD periodically evaluates water supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies.

b. Eastern Municipal Water District

EMWD imports water from MWD that it uses to provide water supply to the city. The imported water received from MWD is treated at two treatment plants: Henry J. Mills (Mills) in Riverside and Robert A. Skinner (Skinner) in Winchester. At Mills, SWP water is treated, while at Skinner a combination of SWP water and CRA water is treated. Untreated water supplied by MWD is treated by EMWD at a microfiltration plant in Perris. An additional microfiltration plant is located in Hemet, which provides untreated MWD water directly to a number of agricultural and wholesale customers. EMWD is increasing the use of recycled water, through expansion and maximization of the four regional water reclamation facilities.

c. Box Springs Mutual Water Company

Box Springs Mutual Water Company (BSMWC) provides water service to 600 business and residential customers in a 430-acre area in the western portion of the city that includes the Edgemont neighborhood. BSMWC is a private shareholder company owned by 2,300 property owners that has provided potable water since 1920. BSMWC water supply is primarily from a groundwater well located in the area, although supplemental water is provided through and agreement with the Western Municipal Water District (WMWD). The well water is high in nitrates and to meet safe drinking water standards, BSMWC must blend its supply with more costly water imported from WMWD.

BSMWC water system facilities, which include undersized and unlined pipes, are currently hydraulically incapable of supplying the necessary fire flow demand to support existing property development conditions. Additionally, the water system is aging and deteriorated and in need of replacement and rehabilitation. A January 2014 test of fire hydrants found that 46 percent failed to meet the minimum water flow needed for fire protection. Improving the water system could cost between $16.5 million and $22 million, depending on whether it continued to depend on the well and blend it with imported water or switched entirely to imported water. BSMWC has replaced some pipes in its service area and a recently approved apartment complex will generate approximately $600,000 in fees for further improvements; however, as BSMWC is a private company, it is not eligible to receive state grants. Funding remains a significant challenge.

4.17.1.2 Wastewater Service

Wastewater service in the Planning Area is provided by two agencies: EMWD provides collection and treatment for most of the city, while the Edgemont Community Services

District serves a 430-acre area in the western portion of the city that includes the Edgemont neighborhood.

a. Eastern Municipal Water District

EMWD is responsible for all wastewater collection and treatment in its service area. EMWD's wastewater collection systems include: 1,534 miles of gravity sewer, 53 lift stations, and 4 operational regional water reclamation facilities (RWRFs), with interconnections between local collection systems serving each treatment plant. Inter-connections between the local collections systems serving each treatment plant allow for operational flexibility, improved reliability, and expanded deliveries of recycled water. All of EMWD's RWRFs produce tertiary effluent, suitable for all Department of Health Services permitted uses, including irrigation of food crops and full-body contact.

EMWD treats all of the wastewater collected in its service area to tertiary standards and disposes of its recycled water in one of three ways: (1) customer sales, (2) discharge to Temescal Creek, or (3) percolation and evaporation while stored in ponds throughout EMWD. In 2015, EMWD collected 48,665 acre-feet of wastewater, treated 45,385 acre-feet of wastewater, and recycled 34,001 acre-feet of wastewater within its service area. The total wastewater collected differs from the total amount treated due to losses in the treatment process. In addition, the balance between the total wastewater treated and the amount recycled within a service area represents EMWD's system losses, such as storage pond evaporation and incidental recharge.

b. Edgemont Community Services District

The Edgemont Community Services District (ECSD) has provided sewer and street lighting to the community of Edgemont within the cities of Riverside and Moreno Valley since 1957. Within Moreno Valley, Edgemont encompasses approximately 430 acres, generally located north of Alessandro Boulevard, east of Interstate 215 (I-215), south of Eucalyptus Avenue, and west of Elsworth Street. The ECSD Sewer System Management Plan (SSMP) Update (2016) was an update to the District's 1995 ECSD Sewer Report. SSMPs must be self audited at least every two years and updated every five years from the original adoption date by the enrollee's governing board.

4.17.1.3 Stormwater

As described in Section 4.10.1.2, the local storm water conveyance system is designed to prevent flooding by transporting water away from developed areas. The Riverside County Flood Control District and Water Conservation District (RCFC&WCD) is the county agency responsible for keeping county residents safe from flood hazards. While RCFC&WCD oversees all aspects of flood protection, they collaborate with local agencies on project development and implementation. RCFC&WCD has prepared four master drainage plans (MDPs) (Sunnymead Area, West End, Perris Valley, and Moreno), that identify the range of public and private improvements required to contain the 100-year frequency storm water flows, alleviating flooding once implemented. Additionally, RCFC&WCD has developed three

area drainage plans (ADPs) that establish the fee required within each specific area to support the required improvements. The Moreno, Sunnymead, and West End MDPs have been adopted by the City. Figure 4.10-2 in Section 4.10 of this Environmental Impact Report (EIR) presents the existing storm drain facilities within the Planning Area.

4.17.1.4 Electrical Power

Southern California Edison (SCE) and the Moreno Valley Electric Utility (MVU) provide electricity to the Planning Area. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and southern California. Today SCE has over 6,500 residential and business clients in a service area that covers the eastern and southern portions of the city.

MVU was established in 2001 as a public power utility, first serving customers in the Promontory Park subdivision at Cactus Avenue and Moreno Beach Drive. MVU serves over 6,500 customers within its service area. MVU provides customer service, meter reading, billing, emergency response, and other services to new commercial and residential developments located within its service area. MVU also provides energy for public vehicle charging stations in the city, including public charging stations located at City Hall and the Walmart Super Center. In 2014, the Moreno Valley City Council formed a Utilities Commission to provide additional review for all matters pertaining to MVU. Commissioners are citizen volunteers, appointed by the City Council for three-year terms.

4.17.1.5 Natural Gas

SoCalGas provides the city with natural gas service. SoCalGas' service territory encompasses approximately 20,000 square miles and more than 500 communities.

4.17.1.6 Solid Waste

The City provides trash, recycling, and special waste handling services to residents and businesses through a contract with Waste Management. No other haulers are authorized to operate within the city. The majority of solid waste generated within the city is disposed of at Badlands Sanitary Landfill, located north of State Route 60 (SR-60) and west of I-10 off Ironwood Avenue. Two other landfills within the county of Riverside, El Sobrante Landfill and Lamb Canyon Landfill, have the capacity to serve the city. As shown in Table 4.17-1, these three landfills have a combined remaining capacity of approximately 178.8 million cubic yards.

Table 4.17-1
Existing Landfills and Capacity

Landfill	Location	Current Remaining Capacity (cubic yards)
Badlands Landfill	31125 Ironwood Avenue Moreno Valley, CA	15.7 million as of January 2015
El Sobrante Landfill	10910 Dawson Canyon Road Corona, California	143.9 million as of April 2018
Lamb Canyon Landfill	16411 Lamb Canyon Road (SR-79) San Jacinto, CA	19.2 million as of January 2015
TOTAL		**178.8 million**
SOURCES: Dyett & Bhatia 2020a.		

4.17.2 Applicable Regulatory Requirements

4.17.2.1 Water Service

a. California Water Action Plan

California Water Action Plan: Actions for Reliability, Restoration and Resilience was released by Governor Brown in January 2014. A collaborative effort of the California Natural Resources Agency, the California Environmental Protection Agency, and California Department of Food and Agriculture, the California Water Action Plan was developed to meet three broad objectives: more reliable water supplies, the restoration of important species and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades.

For the past five years, and continuing into the future, the following actions are designed to move California toward more sustainable water management by providing a more reliable water supply for farms and communities, restoring important wildlife habitat and species, and helping the state's water systems and environment become more resilient:

1. Make conservation a California way of life;
2. Increase regional self-reliance and integrated water management across all levels of government;
3. Achieve the co-equal goals for the Delta;
4. Protect and restore important ecosystems;
5. Manage and prepare for dry periods;
6. Expand water storage capacity and improve groundwater management;
7. Provide safe water for all communities;
8. Increase flood protection;
9. Increase operational and regulatory efficiency; and
10. Identify sustainable and integrated financing opportunities.

b. Water Shortage Contingency Plan (Title 5, Article 10 EMWD Administrative Code)

In accordance with Water Code 10632 requirements, EMWD is responsible for conserving the available water supply, protecting the integrity of water supply facilities, and implementing a contingency plan in times of drought, supply reductions, failure of water distribution systems, or emergencies.

Therefore, EMWD adopted the Water Shortage Contingency Plan to regulate the delivery and consumption of water use during water shortages. EMWD's Board of Directors has the authority to initiate or terminate the water shortage contingency measures described in the Water Shortage Contingency Plan.

EMWD will implement the appropriate Water Shortage Contingency Plan stage based on current water conditions such as:

- EMWD water supply conditions and storage levels
- Statewide water supply conditions
- Local water supply and demand conditions
- MWD Water Supply Allocation Plan implementation or other actions requiring a reduction in water demand
- Actions by surrounding agencies

Higher stages will be implemented as shortages continue and/or if customer response does not bring about desired water savings. Restrictions, penalties, and enforcement will build on each other as higher stages are implemented. The stages are: Stage 1, Supply Watch; Stage 2: Supply Alert (currently in Stage 2); Stage 3, Mandatory Waste Reduction; Stage 4, Mandatory Outdoor Reduction; and Stage 5, Mandatory Indoor Reduction.

c. Urban Water Management Planning Act

In 1983, the California legislature enacted the Urban Water Management Planning Act (California Water Code, Sections 10610–10656), which requires specified urban water suppliers within the state to prepare an UWMP and update it every five years. State and local agencies and the public frequently use UWMPs to determine if agencies are planning adequately to reliably meet water demands in various service areas. As such, UWMPs serve as an important role in documenting water supply availability and reliability for purposes of compliance with Senate Bills 610 and 221, which link water supply sufficiency to large land-use development project approvals. Urban water suppliers also must prepare UWMPs, pursuant to the Urban Water Management Planning Act, in order to be eligible for state funding and drought assistance.

A UWMP provides information on water usage, water supply sources, and water reliability planning within a specified water agency service area. It also may provide implementation schedules to meet projected demands over the planning horizon; a description of

opportunities for new development of desalinated water; groundwater information (where groundwater is identified as an existing or planned water source); description of water quality over the planning horizon; and identification of water management tools that maximize local resources and minimize imported water supplies. Additionally, a UWMP evaluates the reliability of water supplies within the specified service area. This includes a water supply reliability assessment, water shortage contingency plan, and development of a plan in case of an interruption of water supplies.

d. Eastern Municipal Water District Water Conservation Policies

EMWD's water conservation policies, practices, and procedures were originally adopted in 1991, and have been periodically modified to provide long-term water reliability for existing and future customers (EMWD 2013). EMWD water conservation policies include the following:

1. Hosing down driveways and other hard surfaces is prohibited except for health or sanitary reasons.

2. Repair water leaks within 48 hours of occurrence.

3. Irrigate landscape only between 9:00 p.m. and 6:00 a.m. except when:

    - manually watering;
    - establishing new landscape;
    - temperatures are predicted to fall below freezing; or
    - it is for very short periods of time to adjust or repair an irrigation system.

4. Unattended irrigation systems using potable water are prohibited unless they are limited to no more than 15 minutes watering per day, per station. This limitation can be extended for:

    - Very low flow drip irrigation systems when no emitter produces more than two gallons of water per hour.

    - Weather based controllers or stream rotor sprinklers that meet 70 percent efficiency.

    - Runoff or over watering is not permitted in any case.

5. Irrigation systems operate efficiently and avoid over watering or watering of hardscape and the resulting runoff.

6. Excessive water flow or runoff is prohibited.

7. Decorative fountains must be equipped with a recycling system.

8. Allowing water to run while washing vehicles is prohibited.

9. Install new landscaping with low-water demand trees and plants. New turf shall only be installed for functional purposes.

10. Watering during rain is prohibited.

4.17.2.2 Wastewater Service

a. State Water Resources Control Board

The State Water Resources Control Board (SWRCB) preserves, enhances, and restores the quality of California's water resources, and ensures the proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the SWRCB regulates wastewater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still apply. Under California law, the SWRCB requires Waste Discharge Requirements for some discharges in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

b. Recycled Water Policy Resolution No. 2009-0011

The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code Section 13050(n), in a manner that implements state and federal water quality laws. When used in compliance with the policy, Title 22, and all applicable state and federal water quality laws, the SWRCB finds that recycled water is safe for the approved uses, and strongly supports recycled water as a safe alternative to potable water for such approved uses.

4.17.2.3 Stormwater

As described in Section 4.10.2.3.f, the RCFC&WCD is the county agency responsible for keeping county residents safe from flood hazards. The duties of the RCFC&WCD include the following:

- Identification of flood hazards and problems;
- Regulation of floodplains and development;
- Regulation of drainage and development;
- County watercourse and drainage planning;
- Education for flood prevention and safety;
- Construction of flood control structures and facilities;
- Flood warning and early detection; and
- Maintenance and operation of completed structures.

The RCFC&WCD is funded through a share of property taxes in addition to other funding sources. As a special district, the RCFC&WCD's jurisdiction extends over the western 40 percent of Riverside County.

4.17.2.4 Solid Waste

a. California Integrated Waste Management Act

Assembly Bill (AB) 939, known as the California Integrated Waste Management Act of 1989, required all California cities and counties to divert 50 percent of the waste generated within their boundaries by the year 2000. The act requires each California city and county to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle), a Source Reduction and Recycling Element (SRRE) that demonstrates how the jurisdiction will meet the California Integrated Waste Management Act's mandated diversion goals. Each jurisdiction's SRRE must include specific components, as defined in California Public Resources Code Sections 41003 and 41303. Additionally, the SRRE must include a program for the management of solid waste generated in the jurisdiction consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, (3) environmentally safe transformation; and (4) land disposal.

b. Assembly Bill 1826

AB 1826 (2014) requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate on a weekly basis. Additionally, AB 1826 requires that, after January 1, 2016, all local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings with five or more units. Organic waste includes food waste, green waste, landscape and pruning waste, non-hazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time.

Because the minimum threshold of organic waste generation by businesses will be decreased over time (e.g., in 2016, affected businesses were those generating 8 cubic yards or more of organic waste per week; in 2019, affected businesses will be those generating 4 or more cubic yards of organic waste per week), an increasing proportion of the commercial sector will be required to comply. AB 1826 is part of California's efforts intended to achieve its recycling and greenhouse gas emissions reduction goals. Reducing the amount of organic materials sent to landfills and increasing the production of compost and mulch are part of the AB 32 Scoping Plan.

c. Senate Bill 1383

Senate Bill (SB) 1383 (2016) requires a 50 percent reduction in disposal of organic waste from the 2014 level by 2020, and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible

food is recovered for human consumption by 2025. Food waste alone accounts for approximately 17 percent to 18 percent of total landfill disposal. Increasing food waste prevention, encouraging edible food rescue, and expanding the composting and in-vessel digestion of organic waste throughout the state will help reduce methane emissions from organic waste disposed in California's landfills. Additionally, compost has numerous benefits including water conservation, improved soil health, and carbon sequestration.

d. Moreno Valley Municipal Code

The City's Municipal Code Ordinance 6.02.050 provides standards for the provision of solid waste (refuse) and recyclable material storage areas in compliance with state law (California Solid Waste Reuse and Recycling Access Act, Public Resources Code Sections 42900 through 42911). Additionally, the City's Building Code requires development projects to complete and submit a Waste Management and Recycling Plan for approval prior to issuance of building permits. The Waste Management and Recycling Plan would identify the project type, and estimate the amount of materials to be recycled during construction. The project would also be required to complete a Diversion Report for review by the City's Building Department to demonstrate that the project recycled a minimum of 50 percent of its construction waste.

4.17.3 Methodologies for Determining Impacts

The potential for significant impacts associated with the proposed GPU has been determined based upon review of existing secondary source information.

4.17.4 Basis for Determining Significance

Thresholds used to evaluate impacts related to utilities and service system are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. A significant impact would occur if the project would:

1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

2) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

4) 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; or

5) Comply with federal, state, or local management and reduction statutes and regulations related to solid waste.

4.17.5 Impact Analysis

4.17.5.1 Topic 1: Utility Infrastructure

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

a. Water

As described in Section 3.2.4 above, buildout of the project would generate an increase of approximately 43,882 people, 22,052 new homes, 38,915 jobs by 2040, which would necessitate construction of future water supply infrastructure. This increased demand for water infrastructure would primarily be located within the Concept Areas. Due to the increased growth within the Concept Areas, the existing water conveyance system likely would not be adequate to provide a reliable water supply. Therefore, pipeline upgrades, as well as new storage tanks, would likely be required to serve development and redevelopment within the Concept Areas. Additionally, future growth outside of the Concept Areas would also need water infrastructure improvements to serve future growth through 2040.

Construction of the future water facilities described above could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future water facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new water facilities. Furthermore, these future water facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded water facilities to a level less than significant.

b. Wastewater

As described in Section 3.2.4 above, buildout of the project would generate an increase of approximately 43,882 people, 22,052 new homes, 38,915 jobs by 2040, which would necessitate construction of future wastewater infrastructure. This increased demand for wastewater infrastructure would primarily be located within the Concept Areas. The increased wastewater flow generated by the Concept Areas would likely require upsizing existing collection sewer lines and existing conveyance sewer lines to wastewater treatment plants, in addition to extension of sewer lines in existing unserved areas north of SR-60. Additionally, future growth outside of the Concept Areas would also need water infrastructure improvements to serve future growth through 2040.

Construction of the future wastewater facilities described above could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future wastewater facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new wastewater facilities. Furthermore, these future wastewater facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded wastewater facilities to a level less than significant.

c. Stormwater

As described in Section 3.2.4 above, buildout of the project would generate an increase of approximately 43,882 people, 22,052 new homes, 38,915 jobs by 2040, which would necessitate construction of future stormwater infrastructure such as underground storm drains, open channels, and detention basins. The 2021 GPU currently envisions that proposed drainage facilities would consist either of new facilities or extensions of existing drainage facilities. The 2021 GPU currently does not envision upsizing existing drainage facilities or introducing drainage facilities parallel to existing drainage facilities. Any future storm drain facilities greater than 36-inches in diameter, including all reinforced concrete boxes and detention basins, would be operated and maintained by RCFC&WCD, while all remaining facilities would be the responsibility of the City.

Construction of the future stormwater facilities described above could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future stormwater facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new stormwater facilities. Furthermore, these future stormwater facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded stormwater facilities to a level less than significant.

d. Electric Power, Natural Gas, and Telecommunications

As described in Section 3.2.4 above, buildout of the project would generate an increase of approximately 43,882 people, 22,052 new homes, 38,915 jobs by 2040, which would necessitate construction of future electrical, natural gas, and telecommunications infrastructure. This increased demand would primarily be located within the Concept Areas, although future growth outside of the Concept Areas would also need infrastructure improvements to serve future growth through 2040.

Construction of the future electrical, natural gas, and telecommunications could result in environmental impacts, including disturbances or conversion of habitat, water pollution

during construction, increased noise levels, and an increase in impermeable surfaces. At the time future facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new facilities. Furthermore, these future facilities would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded electrical, natural gas, and telecommunications facilities to a level less than significant.

4.17.5.2 Topic 2: Water Supply

Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

In June 2016, EMWD's Board of Directors adopted the 2015 UWMP. This plan provides information on EMWD's projected supplies and demands in five-year increments through the year 2040, and reports EMWD's progress on water use efficiency targets as defined in the Water Conservation Act of 2009. As stated in the UWMP, EMWD's recycled water distribution system includes 135 miles of large diameter transmission pipelines, 6,000 acre-feet of surface storage reservoirs (10 separate sites), and 4 regional pumping plants.

As set forth in the UWMP, EMWD has the supply needed to meet the demand of its customers through 2040. The conclusion is based on the assurances of MWD that it would be able to supply member agency demands, the reliability of local groundwater supplies achieved through groundwater management plans and the development of recycled water resources.

Based on the imported and member agency local water sources discussed above, EMWD estimates that it, along with member agency local sources, would be able to supply 268,200 acre-feet of water in 2040. Therefore, the MWD 2015 Regional UWMP and EMWD 2016 UWMP adequate water supply is available to meet all of the region's anticipated demand, in average/normal and dry water years.

As described in Section 4.15.5.1 above, project buildout would result in a total of 72,737 households in 2040, which would be less than the 2040 SCAG household projection of 73,000. Similarly, the project's projected population size of 252,179 would be less than the 2040 SCAG projection of 256,600. This difference in population is due to the greater share of multi-family units that would likely result under buildout of the project compared to buildout of the existing 2006 General Plan, as multi-family units typically have a lower household population. The project would slightly increase the number of jobs to 83,246 compared to the SCAG 2040 growth projection of 83,200. However, this slight increase in approximately 46 jobs would have a negligible effect on future growth that would be offset by the decrease in population and households compared to SCAG 2040 growth projections. Consequently, the project would not exceed forecasted water demand projections for EMWD, because it would reduce future population and household growth compared to 2040 SCAG projections. Similarly, the project is not expected to exceed forecasted water demand projections for BSMWC, because it would reduce future population and household growth compared to 2040

SCAG projections. Therefore, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.

4.17.5.3 Topic 3: Wastewater Treatment

Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As described in Section 4.15.5.1 above, project buildout would result in a total of 72,737 households in 2040, which would be less than the 2040 SCAG household projection of 73,000. Similarly, the project's projected population size of 252,179 would be less than the 2040 SCAG projection of 256,600. Although the project would slightly increase the number of jobs to 83,246 compared to the SCAG 2040 growth projection of 83,200, this slight increase in approximately 46 jobs would have a negligible effect on future growth that would be offset by the decrease in population and households compared to SCAG 2040 growth projections. Consequently, the project would not exceed forecasted wastewater demand projections for EMWD, because it would reduce future population and household growth compared to 2040 SCAG projections. Similarly, the project would not exceed forecasted wastewater demand projections for ECSD, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, EMWD and ECSD would have adequate capacity to provide wastewater treatment for the project, and impacts would be less than significant.

4.17.5.4 Topics 4 and 5: Solid Waste

Would the project 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?

Would the project comply with federal, state, or local management and reduction statutes and regulations related to solid waste?

As described in Section 4.17.1.6 above, the majority of solid waste generated within the city is disposed of at Badlands Sanitary Landfill. Two other landfills within the county of Riverside, El Sobrante Landfill and Lamb Canyon Landfill, have the capacity to serve the city. As shown in Table 4.17-1 above, these three landfills have a combined remaining capacity of approximately 178.8 million cubic yards. As described in Section 4.15.5.1 above, project buildout would result in a total of 72,737 households in 2040, which would be less than the 2040 SCAG household projection of 73,000. Similarly, the project's projected population size of 252,179 would be less than the 2040 SCAG projection of 256,600. Although the project would slightly increase the number of jobs to 83,246 compared to the SCAG 2040 growth projection of 83,200, this slight increase in approximately 46 jobs would have a negligible effect on future growth that would be offset by the decrease in population and households compared to SCAG 2040 growth projections. Consequently, the project would not

generate excessive solid waste that would exceed regional forecasted demand, because it would reduce future population and household growth compared to 2040 SCAG projections.

As described in Section 4.17.2.4.d above, the City's Building Code requires development projects to complete and submit a Waste Management and Recycling Plan for approval prior to issuance of building permits. The Waste Management and Recycling Plan would identify the project type, and estimate the amount of materials to be recycled during construction. The project would also be required to complete a Diversion Report for review by the City's Building Department to demonstrate that the project recycled a minimum of 50 percent of its construction waste. Future site-specific development under the project would be required to complete a Waste Management and Recycling Plan and a Diversion Plan, which would ensure consistency with local and state requirements regarding waste diversion, including the California Integrated Waste Management Act. Additionally, future site-specific development would also be required to implement organic waste recycling programs consistent with the requirements of AB 1826 and SB 1383. Therefore, the project would not generate solid waste in excess of state or local standards, exceed the capacity of local infrastructure, or conflict with federal, state, or local management and reduction statutes and regulations related to solid waste, and impacts would be less than significant.

4.17.6 Cumulative Analysis

The impact analysis presented in Section 4.17.5 above was cumulative in nature because it considers the need for future facilities to serve the entire Planning Area. Construction of future utility and service system facilities could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. At the time future utility and service facilities are proposed, they would require a separate environmental review and compliance with regulations in existence at that time would address potential environmental impacts related to the construction and operation of new utility and service. Furthermore, these future utility and service would be subject to 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR. Therefore, the project would not contribute to a cumulative impact related to public utilities and service system.

4.17.7 Significance of Impacts before Mitigation

4.17.7.1 Topic 1: Utility Infrastructure

a. Water

Future water facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded water facilities to a level less than significant.

b. Wastewater

Future wastewater facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded wastewater facilities to a level less than significant.

c. Stormwater

Future stormwater facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded stormwater facilities to a level less than significant.

d. Electric Power, Natural Gas, and Telecommunications

Future facilities would be subject to separate environmental review, 2021 GPU goals and policies intended to protect the environment and the programmatic mitigation framework established in this EIR, which would reduce impacts associated with the relocation or construction of new or expanded electrical, natural gas, and telecommunications facilities to a level less than significant.

4.17.7.2 Topic 2: Water Supply

The project would not exceed forecasted water demand projections for EMWD or BSMWC, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.

4.17.7.3 Topic 3: Wastewater Treatment

The project would not exceed forecasted wastewater demand projections for EMWD or ECSD, because it would reduce future population and household growth compared to 2040 SCAG projections. Therefore, EMWD and ECSD would have adequate capacity to provide wastewater treatment for the project, and impacts would be less than significant.

4.17.7.4 Topics 4 and 5: Solid Waste

The project would not generate excessive solid waste that would exceed regional forecasted demand, because it would reduce future population and household growth compared to 2040 SCAG projections. Future site-specific development under the project would be required to complete a Waste Management and Recycling Plan and a Diversion Plan, which would ensure consistency with local, state, and federal requirements regarding waste diversion. Therefore,

the project would not generate solid waste in excess of state or local standards, exceed the capacity of local infrastructure, or conflict with federal, state, or local management and reduction statutes and regulations related to solid waste, and impacts would be less than significant.

4.17.8 Mitigation

4.17.8.1 Topic 1: Utility Infrastructure

a. Water

Impacts would be less than significant. No mitigation is required.

b. Wastewater

Impacts would be less than significant. No mitigation is required.

c. Stormwater

Impacts would be less than significant. No mitigation is required.

d. Electric Power, Natural Gas, and Telecommunications

Impacts would be less than significant. No mitigation is required.

4.17.8.2 Topic 2: Water Supply

Impacts would be less than significant. No mitigation is required.

4.17.8.3 Topic 3: Wastewater Treatment

Impacts would be less than significant. No mitigation is required.

4.17.8.4 Topics 4 and 5: Solid Waste

Impacts would be less than significant. No mitigation is required.

4.17.9 Significance of Impacts after Mitigation

4.17.9.1 Topic 1: Utility Infrastructure

a. Water

Impacts would be less than significant. No mitigation is required.

b. Wastewater

Impacts would be less than significant. No mitigation is required.

c. Stormwater

Impacts would be less than significant. No mitigation is required.

d. Electric Power, Natural Gas, and Telecommunications

Impacts would be less than significant. No mitigation is required.

4.17.9.2 Topic 2: Water Supply

Impacts would be less than significant. No mitigation is required.

4.17.9.3 Topic 3: Wastewater Treatment

Impacts would be less than significant. No mitigation is required.

4.17.9.4 Topics 4 and 5: Solid Waste

Impacts would be less than significant. No mitigation is required.

This Chapter has not been revised as part of the MoVal 2040 Revised Draft Environmental Impact Report (EIR). As the Revised Draft EIR accounts for an updated baseline (2024), portions of the analysis presented in the Safety Element have been updated to accommodate key changes in adopted legislation. However, the analysis of Wildfire remains unchanged from the analysis presented in the 2021 MoVal 2040 EIR. Pursuant to Section 15088.5(f)(2) of the CEQA Guidelines, the City of Moreno Valley directs reviewers of this Revised Draft EIR to limit their comments to those that relate to the revised sections of the Revised Draft EIR.

4.18 Wildfire

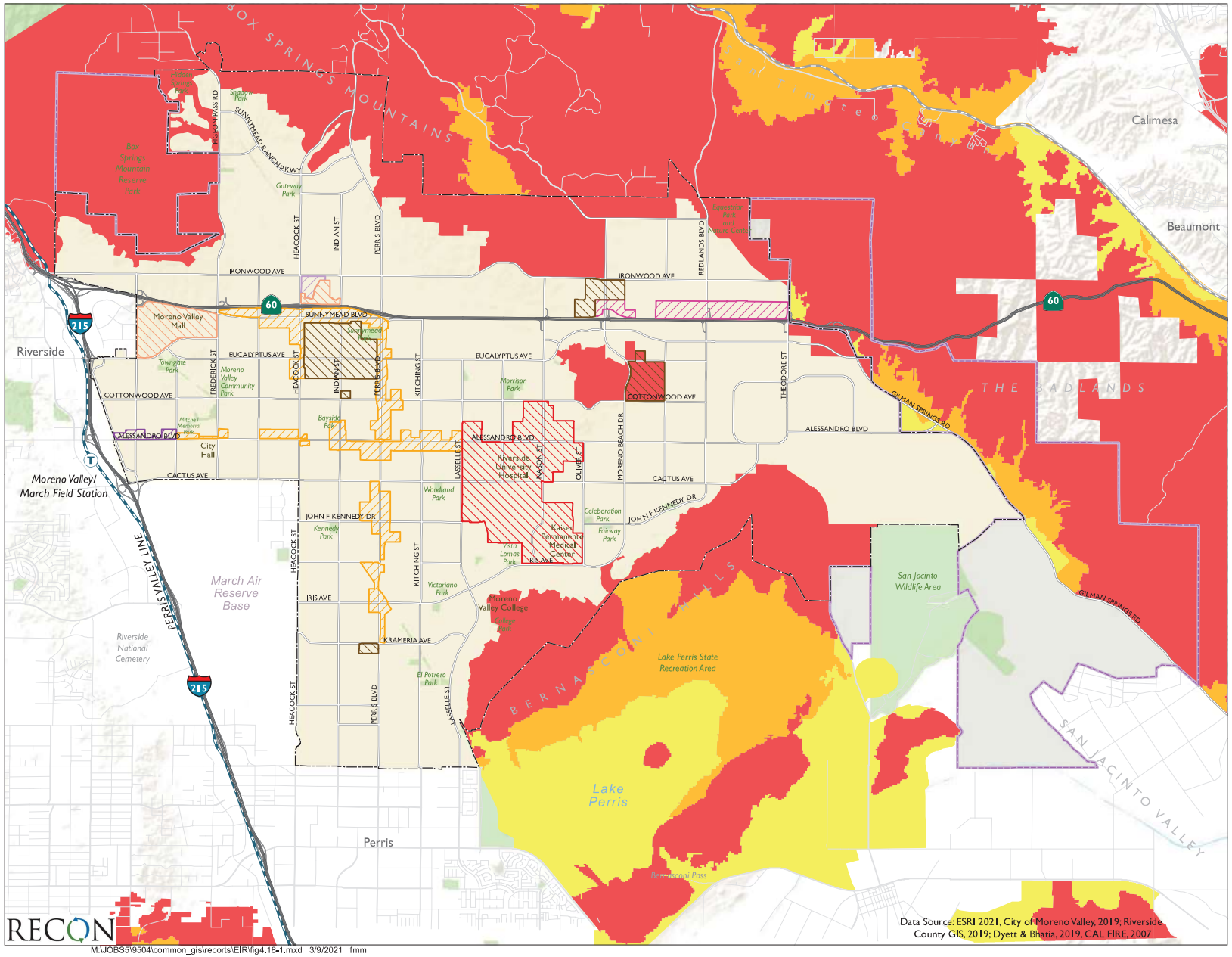
This section analyzes potentially significant impacts related to wildfire that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) and sphere of influence, which are collectively referred to as the Planning Area. This analysis relies on secondary source information including but not limited to city programs and plans, and data available from the California Department of Forestry and Fire Protection (CAL FIRE) and other applicable agencies.

4.18.1 Existing Conditions

4.18.1.1 Wildfire Hazards

Threat from wildfire hazards is determined based on a number of factors, including fuel loading (vegetation); topography; climatic conditions, such as wind, humidity, and temperature; and the proximity of structures and urban development to fire hazards. Wildland fire hazards are most pronounced in wildland-urban interface areas, or where urban development is located close to open space areas where vegetation can serve as fuel. Generally, the periods of greatest risk for wildland fire are the late summer and early fall when vegetation is at its driest. Human activity, including residential and agricultural burning, campfires, and the use of fireworks can all trigger fires. Natural causes such as lightning strikes may also start fires.

CAL FIRE has developed two datasets for fire threat and hazard mapping. The first mapping dataset consists of Fire Hazard Severity Zones (FHSZs), which were developed for community planning and real estate disclosure purposes, and are meant to help limit wildfire damage to structures through planning, prevention, and the application of risk reduction measures. The mapped areas, or "zones," are based on factors such as fuel (e.g., flammable vegetation), slope, and fire weather. There are three zones, based on increasing fire hazard: moderate, high, and very high. As shown in Figure 4.18-1 and detailed in Table 4.18-1, the majority of the Planning Area is located in urban areas not mapped within a FHSZ. Approximately 12,283 acres of the Planning Area are mapped as Very High FHSZ (VHFHSZ).



City of Moreno Valley

Sphere of Influence

General Plan Concept Areas

Mixed Use

- Downtown Center
- Center Mixed Use
- Corridor Mixed Use

Commercial/Office/Industrial

- Highway Office/Commercial
- Business Park/Light Industrial
- Business Flex

Residential

- Residential Density Changes

CalFire Fire Hazard Severity Zones

- Moderate
- High
- Very High

0 Miles 1

FIGURE 4.18-1
California Fire Hazard Severity Zone

Table 4.18-1 Fire Hazard Severity Zone Acreages		
Row Labels	Acres	Percentage
Very High	12,283.37	28.62
High	614.85	1.43
Moderate	195.73	0.46
No Rating	29,823.05	69.49
TOTAL	**42,917.00**	**100.00**

The second CAL FIRE mapping dataset provides maps which show fire threat potential throughout California. CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). These two factors are combined to create a five-point scale of fire threats ranging from Low to Extreme. The fire threat for the Planning Area is shown in Figure 4.18-2. As detailed in Table 4.18-2, the majority of the Planning Area is unranked because it consists of urban development that has no wildfire potential. However, areas designated as having Extreme risk are located within, and adjacent to, the southern, eastern, and northern portions of the Planning Area. These areas also possess lands that have been designated VHFHSZ. A small central portion of the Planning Area has also been identified as having fire risk ranging from Moderate to Extreme, with the majority of this area also categorized as being within VHFHSZ. Table 4.18-2 presents the acreage of land within the Planning Area under each fire threat area classification.

Table 4.18-2 Fire Threat Area Acreages		
Row Labels	Acres	Percentage
Extreme	4,720.20	11.00
Very High	5,004.11	11.66
High	547.60	1.28
Moderate	683.16	1.59
Low	1,074.18	2.50
No Rating	30,887.76	71.97
TOTAL	**42,917.00**	**100.00**

4.18.1.2 History of Wildfire

The city's Local Hazard Mitigation Plan (LHMP) documented that there were 803 wildland fires within the Planning Area varying in size and impact between 2003 and 2016. Eleven of these fires that were documented in the LHMP were over 50 acres in size and are described in Table 4.18-3 below. The total incident costs for fires over 50 acres that have occurred since 2011 totals $1,178,679.17.

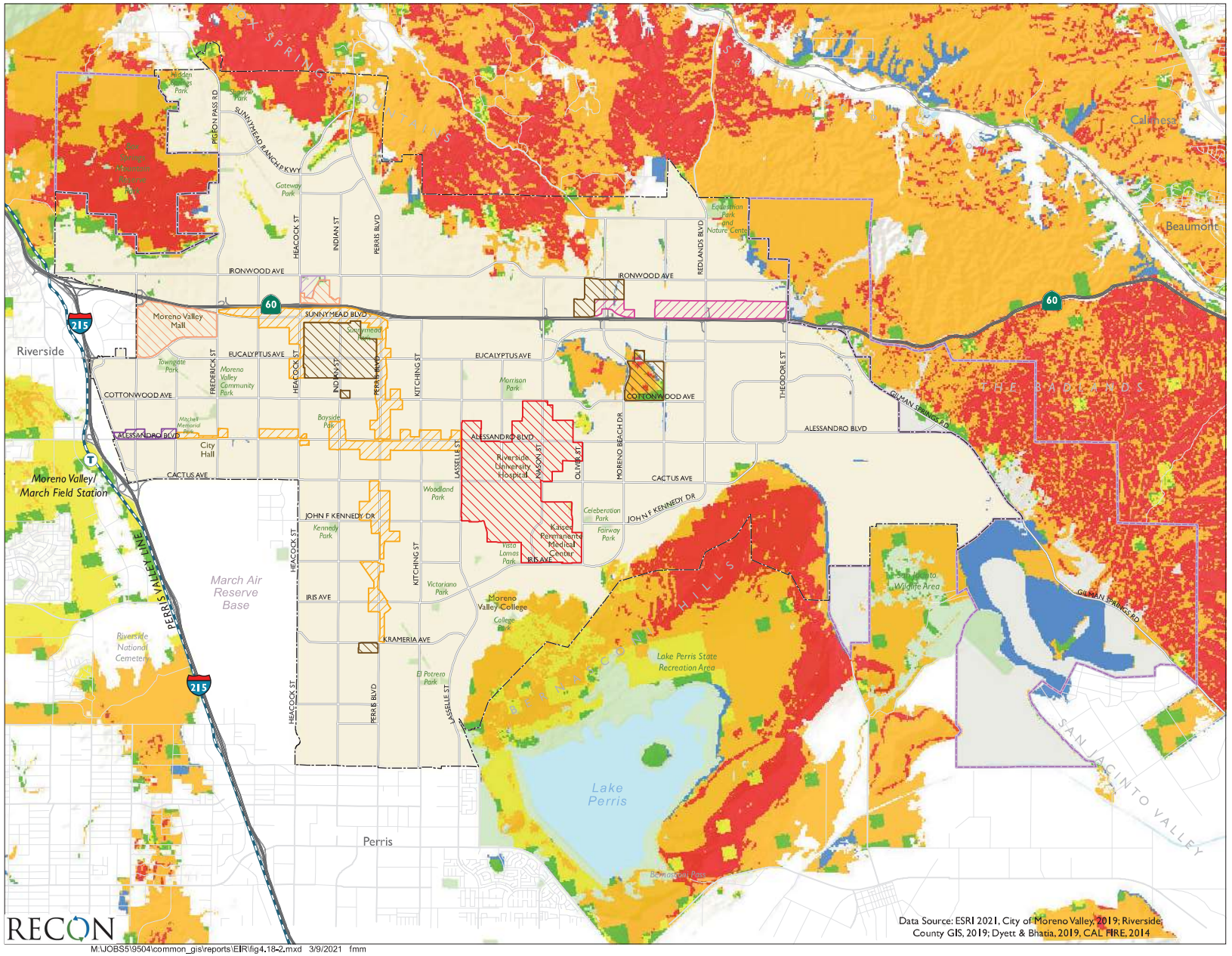


FIGURE 4.18-2
CAL FIRE Fire Threat Areas

Table 4.18-3 History of Fire in Moreno Valley and Surrounding Areas	
Year	Fire Description
2002	April 21, 2002 – Redlands Fire: San Timoteo east of Redlands Boulevard burned 150 acres. No damage information was available.
2003	August 18, 2003 – Locust Fire: wildfire at Redlands Boulevard, east end of Moreno Valley burned 1,600 acres with urban interface. Significant voluntary evacuations with major livestock movement. No other damage information was available.
2003	October 21, 2003 – Pass Fire: wildfire at Reche Canyon, one-half mile north of Moreno Valley burned 2,360 acres and damaged 2 single-family dwellings, 2 mobile homes, 8 outbuildings, and other structures and vehicles.
2007	March 4, 2007 – A wildfire at Gilman Springs Road and Alessandro Boulevard burned 680 acres. No damage information was available.
2009	May 27, 2009 – A wildfire at Via del Lago and Alta Calle burned 503 acres near the north entrance of Lake Perris State Recreational Area. No damage information was available.
2011	June 27, 2011 – A wildfire at Camino Real and Oliver Street burned 52 acres near the north entrance of Lake Perris State Recreational Area. No damage information was available.
2011	July 20, 2011 – A wildfire at San Timoteo Canyon Road east of Redlands Boulevard burned 71.13 acres. No damage to structure, personal property or city infrastructure. Incident cost: $253,274.89.
2011	August 6, 2011 – A wildfire at State Route 60 at Gilman Springs Road burned 1,026 acres. No damage to structures, personal property, or city infrastructure. Incident cost: $391,725.84.
2013	May 25, 2013 – A wildfire at Gilman Hot Springs Road east of Alessandro Boulevard burned 126.64 acres. There was no damage to structures, personal property, or city infrastructure. Incident cost: $97,626.58.
2013	July 16, 2013 – A fire near Redlands Boulevard east of San Timoteo Canyon Road burned 168.09 acres. There was damage to two outbuildings and personal property with unknown dollar damage. Mandatory evacuations ordered. No damage to city infrastructure. Incident cost: $99,218.15.
2015	July 1, 2015 – A wildfire at Merwin Road east of Alessandro Boulevard burned 181.43 acres. A mandatory evacuation was ordered to a residential community and a fire threat was issued to a natural animal preserve. There was city damage sustained to a City's water tower and property fence. There was no residential structure damage. Incident cost: $336,833.71.
SOURCE: City of Moreno Valley 2017.	

4.18.1.3 Wildfire Preparedness

a. Service and Response

Details of fire protection services are provided in Section 4.15.1.1 of this EIR. The following is a brief summary as it relates to wildfire preparedness. The Moreno Valley Fire Department (MVFD) is the primary response agency for fires, and provides a full range of fire prevention services including public education, code enforcement, plan check and inspection services for new and existing construction, and fire investigation. Additionally, the City's Office of Emergency Management (OEM) is located within the MVFD allowing for a well-coordinated response to both natural and human-made disasters. MVFD contracts with the Riverside County Fire Department (RCFD) and CAL FIRE for provision of services as part of an integrated fire protection system. This system ensures that the additional fire response resources are available from RCFD and surrounding jurisdictions when there is an

emergency that utilizes a majority of the city's resources. Additionally, under this integrated system, the city is able to provide fire apparatus to other local jurisdictions when they are experiencing a major incident requiring additional fire resources.

MVFD has established a target response time of 5 minutes from dispatch to arrival for 90 percent of calls for service and continues to work to meet this goal. MVFD response times were tracked manually by fire station personnel through 2008, and compliance with this goal varied from 85 percent to 99 percent, depending on the time of year and the fire station (MVFD 2011).

Existing and proposed fire stations as shown in Figure 4.15-1 presented in Section 4.15 of this EIR. The MVFD Strategic Plan outlines goals and strategies for fire protection services throughout the Planning Area, including facility needs and improvements, training requirements, such as Community Emergency Response Team (CERT), and disaster preparedness. Disaster preparedness efforts include oversight of the OEM, including maintaining the OEM in a continued state of readiness, training staff and outside agency representatives in their roles and responsibilities, and coordinating Emergency Operations Center (EOC) operations when activated in response to an emergency or major event/incident.

4.18.2 Applicable Regulatory Requirements

4.18.2.1 Federal Regulations

a. Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires that a state mitigation plan, as a condition of disaster assistance, add incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: "Standard" and "Enhanced." The Disaster Mitigation Act also established a new requirement for local mitigation plans.

4.18.2.2 State Regulations

a. California Wildland-Urban Interface Code

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Building Code (CBC) (California Code of Regulations [CCR] Title 24, Part 2). Section 701A of the CBC includes regulations addressing materials and construction methods for exterior wildfire exposure and applies to new buildings located in state responsibility areas or VHFHSZs in local response areas.

b. California Fire Code

The 2016 California Fire Code (CCR Title 24, Part 9) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City has adopted the California Fire Code as Title 8, Chapter 8.36 the Municipal Code, including appendices addressing fire-flow requirements for buildings.

4.18.2.3 Local Regulations

a. Local Hazard Mitigation Plan

The City's LHMP (2017) is designed to identify the city's hazards, including threat of wildfire, especially for those portions of the city which are mapped within high fire hazard areas. The LHMP includes strategies for the minimization of damage from wildfires including the identification of high fire risk areas. The LHMP also contains the City's evacuation plan including the identification of evacuation centers and evacuation map.

b. Emergency Operations Plan

The City's Emergency Operations Plan (2009) identifies wildfire as a potential risk to life and property. The plan identifies areas of concern and provides a threat assessment and develops an approach to combatting wildfire, alerting and warning, shelter and mass care, donation management, volunteer management, evacuation, damage assessment, as well as preventive measures.

c. Moreno Valley Fire Department Strategic Plan 2012-2022

The Moreno Valley Fire Department Strategic Plan 2012-2022 outlines goals and strategies directed at fire operations, fire prevention, and the OEM to assist in the provision of fire protection services. Goals for the protection against wildfire include the following:

- Fire Operations
  - Financial Management and Accountability
  - Goal 2: Arrive On Scene within 5 Minutes of Dispatch 90% of the Time
  - Goal 3: Reduce the Risk of Fire to Residents through Prevention Campaigns
  - Maintain a Strong Partnership with Riverside County Fire Department
  - Ensure Fire Administration Staffing is Sufficient for the Needs of the Department

- Fire Prevention
  - Goal 1: Fiscal Sustainability
  - Goal 2: Ensure All Business and Commercial Occupancies Receive Annual Fire and Life Safety Inspections
  - Goal 3: Perform Hazard Abatement Inspections Bi-Annually
  - Goal 4: Provide Efficient Plan Review
  - Goal 5: Evaluate Management Structure and Career Advancement within the Bureau

- OEM
  - Goal 1: Provide Training to Employees, Businesses, and Citizens
  - Goal 2: Incorporate Federal and State Legal Mandates and Standards into City Emergency Management Strategies
  - Goal 3: Continually Improve Emergency Operations Center Functions and Capabilities Based on a Comprehensive Assessment
  - Goal 4: Manage FEMA and State Disaster Recovery Projects to Ensure Timely Completion of Required Documentation
  - Goal 5: Maintain Effective Coordination and Partnerships with Local, Regional, and State Agencies

The Fire Facilities and Equipment Master Plan is part of the MVFD Strategic Plan. The MVFD participates in the City's Capital Improvement Project (CIP) budget each fiscal year. This budget identifies the fire facilities that are to be constructed in the next five fiscal years as well as future fire station locations and CIP needs. The Strategic Plan anticipates the need for twelve or thirteen fire stations, with a possible fourteenth fire station as an in-fill fire station to service projected population through 2022. In addition to building new facilities, the MVFD will need personnel and fire apparatus.

d. Moreno Valley Wildfire Mitigation Plan

Moreno Valley Utility (MVU) has prepared and continually updates a Wildfire Mitigation Plan. The primary goal for the Wildfire Mitigation Plan is to describe the city's programs and practices, and measures that effectively reduce the probability that the city's electric supply system could be the origin or contributing source for the ignition of a wildfire. MVU's entire electric supply system is located underground in conduit and vaults. Historically, undergrounded electric lines have not been associated with catastrophic wildfires. The undergrounding of electric lines serves as an effective mitigation measure to reduce the potential of power-line ignited wildfires. Based on a review of local conditions and historical fires, MVU has determined that its electrical lines and equipment do not pose a significant risk of catastrophic wildfire.

Despite this low risk, MVU takes appropriate actions to help its region prevent and respond to the increasing risk of devastating wildfires. In its role as a public agency, MVU closely coordinates with other local safety and emergency officials to help protect against fires and respond to emergencies. In its role as a utility, MVU follows all applicable design, construction, operation, and maintenance requirements that reduce safety risks associated with its system.

e. City of Moreno Valley Municipal Code

Title 3 of the City of Moreno Valley Municipal Code (Municipal Code) contain an assortment of fees and taxes collected by the City. Chapters 3.38 and 3.42 establish residential and commercial/industrial development impact fees, respectively. Specifically, Section 3.38.060 requires the payment of impact fees for residential development projects and Section 3.42.060 requires the payment of impact fees for commercial and industrial projects for the purpose of acquiring, designing, constructing, improving, providing and maintaining, to the extent permitted by law, fire services facilities provided for in the City's General Plan and its adopted CIP.

Title 8 of the Municipal Code contains a number of regulations that address fire protection. Chapter 8.36 California Fire Code codifies the City's adoption of the California Fire Code. Municipal Code Section 8.36.050 addresses requirements for Wildland-Urban Interface Areas in the Planning Area and refers to the mapping of VHFHSZs in addition to providing fuel modification requirements for new construction. Specifically, any new buildings in areas containing combustible vegetation are required to prepare preliminary fuel modification plans concurrent with the submittal for approval of any tentative map.

4.18.3 Methodologies for Determining Impacts

The potential for significant impacts associated with the proposed GPU has been determined based upon review of existing secondary source information and data relative to wildfires available for the Planning Area.

4.18.4 Basis for Determining Significance

Thresholds used to evaluate impacts associated with wildfire are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Sections 15000-15387), Appendix G. Impacts related to wildfire could be significant if implementation of the project is located in or near state responsibility areas or lands classified as VHFHSZs, and if the project would:

1) Substantially impair an adopted emergency response plan or emergency evacuation plan;

2) 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;

3) 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; or

4) 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.

4.18.5 Impact Analysis

4.18.5.1 Topic 1: Emergency Response Plans

Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The City adopted its LHMP on October 4, 2011 (revised 2017). The LHMP contains a map of emergency evacuation routes in the community that includes I-215, SR-60 and major roadways through the city. The evaluation network consists of 129 miles of roadway designated as potential evacuation routes in the event of disaster, including 34 bridges and 127 water crossings.

An analysis of development patterns and roadway connectivity indicates that some residential areas in the northern and southeastern portions of the city have constrained emergency access. These include developments in Sunnymead Ranch, Moreno Valley Ranch, and Hidden Springs. These are typically locations where residential development pre-dates incorporation into the City, and where homes are constructed on cul-de-sacs with a single point of connection to the municipal roadway network. Approval of new development in these areas would be conditioned on review by MVFD and the Moreno Valley Public Works Department to ensure adequate emergency access. Additionally, the 2021 GOU includes policies that provide for use of the City's early warning notification system to proactively alert residents of areas with constrained access in the event of a disaster requiring emergency evacuation.

Evacuation times could be improved with the implementation of technological and design strategies. For example, where appropriate, the use of painted medians instead of raised medians on roadways in areas of highest risk would effectively allow for reversible lanes that create additional outbound capacity. Application of this strategy would approximately double evacuation capacity in the northwestern portion of the city. Further, remote control of signal timing from the City's Traffic Management Center (TMC) allows for real-time modifications to signal timing that can speed evacuation in the event of emergency. Approximately half of the traffic signals in the City are currently connected to the TMC, and the 2021 GPU provides for the implementation of this technology in vulnerable areas as a priority going forward. The 2021 GPU also includes policies that provide for exploration of additional actions to facilitate emergency evacuation, including the study of improved roadway connections, including Morton Road/Gernert Road in unincorporated Riverside County to the west of Moreno Valley.

Future development would be designed, constructed, and maintained in accordance with applicable standards associated with the LHMP, including vehicular access to ensure that adequate emergency access and evacuation would be maintained. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate

measures to facilitate the passage of persons and vehicles through/around any required road closures. Moreover, future development would be required to adhere to the following goals, policies, and actions included in the 2021 GPU Safety Element.

Goal

S-1: Protect life and property from natural and human made hazards.

Policies

S.1-12 Work to prevent wildland fire and to protect lives, property, and watersheds from fire dangers.

S.1-13 Jointly with state, county, local and other agencies, inform property owners of wildfire risks and measures to reduce those risks.

S.1-14 Require new development in very high FHSZs to prepare a Fire Protection Plan that minimizes risks by:

- Assessing site-specific characteristics such as topography, slope, vegetation type, wind patterns etc.;
- Siting and designing development to avoid hazardous locations (e.g., through fire breaks) to the extent feasible;
- Incorporating fuel modification and brush clearance techniques in accordance with applicable fire safety requirements and carried out in a manner which reduces impacts to environmentally sensitive habitat to the maximum feasible extent;
- Using fire-safe building materials and design features to ensure the minimum amount of required fuel modification;
- Using fire-retardant, native plant species in landscaping; and
- Complying with established standards and specifications for fuel modification, access, and water facilities.

S.1-15 Avoid, where feasible, locating new development in areas subject to high wildfire risk. If avoidance is not feasible, condition such new development on implementation of measures to reduce risks associated with that development.

S.1-16 Require that all new development located in a Very High Fire Hazard Severity Zone (VHFHSZ) or a State Responsibility Area (SRA) is served by adequate infrastructure, including safe access for emergency response vehicles, visible street signs, and water supplies for fire suppression.

S.1-17 Require new development in VHFHSZs to enter into a long-term maintenance agreement for vegetation management in defensible space, fuel breaks, and roadside fuel reduction.

S.1-18 Continue to require proactive weed abatement, brush thinning and removal services on new and existing development in High and Very High Fire Hazard Severity Areas in order to curb potential fire hazards.

S.1-19 Cooperate with the Riverside County Fire Department and CAL FIRE to ensure that all portions of the Planning Area are served and accessible within an effective response time and to address regional wildfire threats.

S.1-20 Work with responsible agencies and nongovernmental organizations to plan for post-fire recovery in a manner that reduces further losses or damages from future fires.

Actions

S.1-G Maintain and make publicly available an up-to-date map of high and very high fire hazard areas, consistent with CAL FIRE designations.

S.1-H Consider developing alternative fire protection standards suitable for Rural Residential areas not exposed to high wildland fire hazards.

S.1-I Disseminate information on fire weather watches and fire risks via the City's website and encourage all Moreno Valley residents to engage in risk reduction and fire preparedness activities.

Additionally, the 2021 Transportation Element identifies roadway improvements that would increase traffic capacity, and thereby ensure that the roadway network would be capable of accommodating traffic flows during emergency response and emergency evacuation. Therefore, adherence to applicable LHMP standards and 2021 GPU Safety Element policies, as well as increased traffic capacity in the proposed roadway network, would ensure that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

4.18.5.2 Topic 2: Wildfire

Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

As shown in figures 4.18-1 and 4.18-2, the proposed Concept Areas have largely avoided areas identified as having High, Very High, or Extreme CAL FIRE threat designations. The proposed land use changes located near these CAL FIRE threat designations are limited to the Residential Density Change Concept Area located immediately east of Moreno Beach

Drive designated with a Very High CALFIRE Fire Hazard Severity Zone (FHSV) (see Figure 4.18-1) and designated as a mix of Extreme, Very High, and High CAL FIRE Fire Threat Areas (see Figure 4.18-2) Additionally, the Residential Density Change Concept Area north of SR-60 is located adjacent to an area designated with a Very High CAL FIRE FHSV, and the Highway Office/Commercial Concept Area is located adjacent to an area designated with a Moderate CAL FIRE FHSV (see Figure 4.18-1). Furthermore, future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations may also be located within, or adjacent to land identified as having High, Very High, or Extreme CAL FIRE threat designations. For instance, areas along the entire northern perimeter of the Planning Area and areas adjacent to the Bernasconi Hills in the southeastern part of the city are designated VHFHSZs, as are areas along the eastern perimeter of the Planning Area. There is existing low density single-family residential development in and adjacent to these VHFHSZs, notably in the vicinity of Petit Hill north of Ironwood and south of Iris and John F. Kennedy, where residential neighborhoods abut the Bernasconi Hills.

Prolonged droughts coupled with high winds and dry vegetation create the highest fire risk in these areas, particularly in autumn and winter, when the Santa Ana winds typically blow and wildfire risk increases significantly. In addition to the direct physical threat to life and property, smoke released during an event can have a detrimental effect on air quality and lead to health risks from smoke inhalation. To address this risk, the City cooperates with CAL FIRE and the Riverside County Fire Department through cooperative fire protection agreements. Portions of the planning area within the SOI are designated State Responsibility Areas (SRA), where the State of California is financially responsible for the prevention and suppression of wildfires, while the Moreno Valley Fire Department has primary responsibility for Local Responsibility Areas (LRA) within the City limit. While the majority of the city is flat, there are some areas that have slopes. These include the Residential Density Change Concept Area located immediately east of Moreno Beach Drive, and areas in the northern and southern portion of the Planning Area. Areas with slopes correspond with the areas identified as having greater landslide risk presented on Figure 4.7-3 in Section 4.7. These areas largely correspond with areas identified as having High, Very High, or Extreme CAL FIRE threat designations presented in Figures 4.18-1 and 4.18-2, and would be subject to elevated risk associated with the spread of wildfire. However, future development would be required to comply with fuel modification regulations including the submittal of plans to MVFD.

Wildland urban interface areas exist on the north, east, and south edges of the planning area, including Box Springs Mountain and San Timoteo Canyon to the north, the "Badlands" to the east, and Lake Perris State Park to the south. Portions of these areas within the City limit are partially developed with low density single-family housing, while portions in the SOI are largely undeveloped. Within the City limit, large tracts of land in wildland urban interface areas are designated Parks/Open Space on the 2021 GPU proposed land use map, which would not permit residential development, and existing development is limited to low density single-family homes. Undeveloped lands in wildland urban interface areas within the City limit are designated Hillside Residential or Rural Residential, which permit only very low density residential development. The City has adopted specific requirements for

development in these areas. All new construction in these areas is required to prepare a fuel modification plan before approval of tentative maps and grading permits. The City has also established a weed hazard abatement program, which is overseen by MVFD. This program is designed to create defensible space, or a buffer between a building and the flammable vegetation that surrounds it, in order to stop or slow the spread of wildfire and protect property.

The 2021 GPU would also require preparation of a fire protection plan (FPP) approved by the fire code official prior to approving new development in VHFHSZs. FPPs must include mitigation measures designed to address the unique problems resulting from the location, topography, geology, flammable vegetation, and climate of the proposed site. They must also consider water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space, and vegetation management, and must be consistent with the requirements of California Building Code Chapter 7A, the International Wildland-Urban Interface Code, and the Moreno Valley Municipal Code. Additionally, the 2021 GPU includes policies to provide fire prevention and emergency response services that minimize fire risks and protect life and property, and monitor the pace and location of development within the Planning Area and coordinate the timing of fire station construction or expansion to the rise of service demand in surrounding areas to ensure fire safety. Therefore, compliance with MVFD regulations and 2021 GPU policies would ensure that the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and impacts would be less than significant.

4.18.5.3 Topic 3: Infrastructure

Would the project 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?

The project would require introduction of future infrastructure to support increased population and job growth anticipated in the Planning Area. The majority of future infrastructure development would be concentrated in the Concept Areas Future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations would require some infrastructure development as well. However, future development and corresponding infrastructure development would be subject to the MVFD regulations and 2021 GPU policies described in Section 4.18.5.2 above. Therefore, compliance with MVFD regulations and 2021 GPU policies would ensure that installation or maintenance of associated infrastructure would not exacerbate fire risk, and impacts would be less than significant.

4.18.5.4 Topic 4: Flooding or Landslide

Would the project 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?

Wildfire can alter the hydrologic response of a watershed to the extent that even modest rainstorms can produce dangerous flash floods and debris flows. A number of factors affect the likelihood of downstream flooding or landslide after a fire including basin morphometry, burn severity, soil properties, and rainfall characteristics (U.S. Geological Survey 2021). As the project focuses development within the existing developed areas of the city, the potential exposure of people or structures to flooding or landslides from post-fire slope instability would not increase due to project implementation.

As detailed throughout Section 4.10.5 of this EIR, potential flooding could occur in a number of ways: new development and redevelopment under the project could increase storm water velocity leading to off-site flooding (Section 4.10.5.3(b)); new development and redevelopment under the project could impede or redirect flood flows (Section 4.10.5.3(d)); and the placement of new or redevelopment projects within Federal Emergency Management Agency (FEMA) floodplains (Section 4.10.5.4). However, as discussed therein, all future development and redevelopment would comply with applicable federal, state, regional and local plans, policies, and regulations. Future site-specific projects would be required to include project-specific flood control measures, production of storm water plans and use of best management practices, as well as FEMA processing, among other planning tools (see Section 4.10.5 for additional details). Through compliance measures, impacts related to flooding was found to be less than significant.

Potential impacts associated with landslides are discussed in Section 4.7.5.1.c of this EIR. Potential landslides could occur because the Planning Area is located within seismically active southern California region, and is located in close proximity to the San Jacinto Fault (see Section 4.7.5.1(a)). Additionally, due to the underlying geology of the Planning Area, there are a number of landslide susceptible areas within the Planning Area (see Section 4.5.5.1(c)). However, implementation of site-specific recommendations provided within a required geotechnical investigation would reduce impacts associated with landslides, slope instability, and mudflows to less than significant.

While the Planning Area could be subject to risks associated with downstream flooding or landslides due to post-fire instability, future site-specific projects would be required to adhere to all applicable regulations focused on both flooding and fire safety. Additionally, the project would not expand potential development areas that would substantially increase risk of post-fire landslide or flooding. Therefore, the project would not increase risk associated with post-fire flooding or landslides, and impacts would be less than significant.

4.18.6 Cumulative Analysis

MVFD and the 2021 GPU have numerous policies that would prevent wildfires. Large tracts of land in wildland urban interface areas are designated Parks/Open Space on the 2021 GPU proposed land use map, which would not permit residential development, and existing development is limited to low density single-family homes. Undeveloped lands in wildland urban interface areas within the city limit are designated Hillside Residential or Rural Residential, which permit only very low density residential development. The City has adopted specific requirements for development in these areas. All new construction in these areas is required to prepare a fuel modification plan before approval of tentative maps and grading permits. The City has also established a weed hazard abatement program, which is overseen by MVFD. This program is designed to create defensible space, or a buffer between a building and the flammable vegetation that surrounds it, in order to stop or slow the spread of wildfire and protect property.

The 2021 GPU would also require preparation of a fire protection plan (FPP) approved by the fire code official prior to approving new development in VHFHSZs. FPPs must include mitigation measures designed to address the unique problems resulting from the location, topography, geology, flammable vegetation, and climate of the proposed site. Additionally, the 2021 GPU includes policies to provide fire prevention and emergency response services that minimize fire risks and protect life and property, and monitor the pace and location of development within the Planning Area and coordinate the timing of fire station construction or expansion to the rise of service demand in surrounding areas to ensure fire safety. Therefore, compliance with MVFD regulations and 2021 GPU policies would ensure that the project would not contribute to a cumulative impact related to wildfire.

4.18.7 Significance of Impacts before Mitigation

Impacts would be less than significant. No mitigation is required.

4.18.8 Mitigation

Impacts would be less than significant. No mitigation would be required

4.18.9 Significance of Impacts after Mitigation

Impacts would be less than significant. No mitigation is required.

5

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 5.0, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

Chapter 5
CEQA Mandated Analysis

California Environmental Quality Act (CEQA) Guidelines Section 15126.2(b) and (c) require that the significant unavoidable impacts of the project, as well as any significant irreversible environmental changes that would result from project implementation, be addressed in the Environmental Impact Report (EIR). Additionally, CEQA Guidelines Section 15126.2(e) requires that an EIR evaluate the "growth-inducing" effects of a project. The following paragraphs discuss these mandated topics associated with implementation of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP), herein after referred to as the MoVal 2040 Project ("Project"). The analysis area covers the entire City of Moreno Valley (City) and sphere of influence, which are collectively referred to as the Planning Area. Within the analysis, Concept Areas refers to those areas where the GPU proposes land use changes as shown on Figure 3-1.

5.1 Significant Environmental Effects Which Cannot Be Avoided if the Project is Implemented

In accordance with CEQA Guidelines Section 15126.2 (b) any significant unavoidable impacts of a project, including those impacts that can be mitigated but not reduced to below a level of significance despite the applicant's willingness to implement all feasible mitigation measures, must be identified in the EIR. Implementation of the project would result in significant, unavoidable impacts associated with the following issues: agriculture and forestry resources, air quality, biological resources cultural and Tribal cultural resources, noise, and transportation. Chapter 4.0 of this Revised Draft EIR provides more detail about the nature and extent of these impacts related to implementation of the Project.

These impacts would remain significant and unavoidable as a result of the Project. A Statement of Overriding Considerations, consistent with CEQA Guidelines Section 15093, will be prepared, for certification with the Final EIR, identifying specific economic, legal, social, technological, or other benefits of the Project which allow approval of the Project to outweigh the unavoidable impacts.

5.2 Significant Irreversible Environmental Changes Which Would Result if the Project is Implemented

In accordance with CEQA Guidelines Section 15126.2(c):

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provide access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Non-renewable resources generally include agricultural land; biological, archaeological, and paleontological resources; mineral deposits; water bodies; and some energy sources. The 2024 General Plan Update (GPU) has been designed to minimize impacts to sensitive biological resources by primarily focusing future development and redevelopment within the proposed Concept Areas. These areas consist of clusters of vacant and underutilized land within the City limit that would avoid the majority of sensitive habitat that is located within the eastern and southeastern portion of the Planning Area. Focusing development and redevelopment within these areas that consist primarily of developed and/or disturbed land would minimize adverse impacts to sensitive species. Similarly, the Concept Areas avoid the majority of the identified historic and potentially eligible historic resources, as well as the majority of the

archaeological sensitive complexes. Nonetheless, impacts to biological and cultural resources were found to remain significant and unavoidable, because it cannot be known at the program level of analysis with certainty that impacts to sensitive species could be fully avoided or be fully mitigated. (see Sections 4.4 and 4.5 of this Revised Draft EIR). Additionally, implementation of the 2024 GPU would result in the permanent loss of 15 acres of land designated Prime Farmland, as well as the additional loss of farmland due to indirect conversion of agricultural land through urbanization (see Section 4.2). Therefore, future development consistent with the 2024 GPU could result in the permanent loss of biological, cultural, and agricultural resources.

There exists some potential for paleontological resources to be present within the Planning Area, primarily within portions of the sphere of influence that have been identified as having a high potential for paleontological resources. However, implementation of mitigation measure PAL-1 would reduce impacts associated with future grading and development to a level less than significant (see Section 4.7). As described in Section 4.10, implementation of the 2024 GPU would result in less than significant impacts to water bodies (drainage and water quality). The Planning Area does not support any mineral extraction activities, and the small amount of land designated as MRZ-2 in the southeastern portion of the sphere of influence is not located within any of the proposed Concept Areas. Therefore, impacts related to mineral resources would be less than significant.

With regard to energy resources, actions related to future development would result in an irretrievable commitment of nonrenewable resources, including energy supplies and construction materials, such as lumber, steel, and aggregate. Non-renewable energy resources (coal, natural gas, oil) would be used in construction, heating, and refrigeration of food and water, transportation, lighting, and other associated energy needs. (Energy impacts are further discussed in Section 4.6 of this Revised Draft EIR).

In summary, implementation of the 2024 GPU would result in an increase in residential, business park, industrial, office, commercial, and civic and institutional uses throughout the Planning Area, particularly within the Concept Areas (see Figure 3-1). Construction and operation associated with implementation of future projects would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would limit the availability of these particular resource quantities for future generations or for other uses. However, the use of such resources would be consistent with local and regional growth forecasts for the area (see Section 4.14). Therefore, although irreversible environmental changes would result from future development, such changes would not be considered significant.

5.3 Growth Inducement

CEQA Guidelines Section 15126.2(d) requires that an EIR:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which

> would remove obstacles to population growth (for example, a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population might tax existing community services facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can directly or indirectly induce growth. Construction of new housing would directly induce population growth. However, if a project creates substantial new permanent employment opportunities, it could indirectly induce growth by stimulating the need for additional housing and services to support the new employment demand. It could also indirectly induce growth by removing infrastructure limitations or regulatory constraints on a required public service, such as roads or water service.

5.3.1 Population and Housing Growth

The 2024 GPU does not propose the construction of new housing or other development; rather it provides capacity for future development consistent with State Housing Element Law and regional plans including the Southern California Association of Governments (SCAG) 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The California Department of Finance is responsible for developing the total statewide housing demand projection. With the State Department of Housing and Community Development, this demand is apportioned to each of the State's regions. SCAG is responsible for allocating the region's projected new housing demand in each of its member jurisdictions through the Regional Housing Needs Assessment (RHNA) process. The allocation takes into account factors such as market demand for housing, employment opportunities, the availability of suitable sites and public facilities, commuting patterns, type and tenure of housing need, and others. Therefore, the 2024 GPU portion of the Project contains policies and implementation programs that would provide for housing development consistent with the City's share of the regional housing need as identified in the RHNA.

As described in Chapter 3, buildout of the 2024 GPU would result in development of approximately 33,812 new homes, which is greater than the RHNA allocation assigned to the City of 13,627 new homes. This exceedance of the RHNA allocation would provide a buffer in all income categories to ensure the City can navigate the no net loss provisions of the State Housing Element law and have continued ability to meet the RHNA by income group throughout the planning period. As described in Chapter 3, Project Description, the Housing Element was certified by the State of California's Housing and Community Development Department on October 11, 2022 and is not being amended as part of this Project.

Chapter 3 also documented that buildout of the 2024 GPU would result in approximately 86,860 households in 2040, which would be greater than the 2040 SCAG household projection

of 69,535. Similarly, the 2024 GPU's projected population size of 298,440 would be greater than the 2040 SCAG projection of 234,235.

Furthermore, the 2024 GPU has been designed to primarily focus future development and redevelopment within Concept Areas that consist of vacant or underutilized land along major transit corridors.

5.3.2 Removal of an Impediment to Growth

The 2024 GPU does not propose the construction or expansion of new housing, services, or other infrastructure development; rather it provides for future development consistent with state Housing Element Law. The 2024 GPU has been designed to primarily focus future development and redevelopment within Concept Areas that consist of vacant or underutilized land along major transit corridors, including the Downtown Center, Moreno Valley Mall area, and the Alessandro, Perris, and Sunnymead corridors. To accommodate this new growth pattern, it is anticipated that sewer line improvements will be required in these areas, including a new sewer line to collect wastewater and a new trunk sewer to convey the flows to the wastewater treatment plant. Other wastewater collection system improvements needed to support planned business and industrial development in the eastern part of the City have been defined and planned for as part of a separate Specific Plan process. Certain areas in the northeast portion of the City planned for highway commercial/office will require sewer extensions to accommodate development, although all areas planned for development are within the existing Eastern Municipal Water District (EMWD) boundaries where service is available. The cost of the new sewer collection and conveyance system improvements will be paid by development as projects are proposed. Implementation of the land use plan would not require major expansions of infrastructure that would induce unplanned growth. Future infrastructure development would occur within the existing facility service areas within areas already served by essential roads, utilities, and public services, and the project would not remove an impediment to growth.

5.3.3 Foster Economic or Employment Growth

The 2024 GPU does not propose or provide direct development rights to new major retail, commercial or employment centers that would encourage substantial economic or employment growth. Rather, it provides capacity for future development consistent with regional plans including SCAG 2024-2050 RTP/SCS. The implementation of the 2024 GPU would increase the number of jobs to 104,296 compared to the SCAG 2040 growth projection of 70,716., The increase in approximately 33,580 jobs would be due to an increase in light industrial in the City. However, the 2024 GPU would accommodate projected population growth and would not be considered growth inducing because it would provide housing capacity for projected population growth associated with the economic growth in the City. Therefore, future economic and employment growth associated with the Project would not induce growth.

5.4 Conclusion

Overall, neither the 2024 GPU nor the Climate Action Plan would be growth inducing; however, the 2024 GPU will accommodate projected growth as required by State law. The 2024 GPU would not remove an impediment to growth, nor does it propose to develop, or permit the encroachment into an isolated area adjacent to open space, or foster economic and employment expansion. As discussed above, implementation of the 2024 GPU would accommodate projected population growth and would not be considered growth inducing because it would provide housing capacity for projected population growth consistent with the certified 6th Cycle Housing Element. The opportunities to provide housing would be consistent with the City's need to establish a resilient housing base for the community and comply with State law.

6

Chapter 6
Project Alternatives

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 6.0, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (GHG emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

The California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an Environmental Impact Report (EIR) compare the effects of a "reasonable range of alternatives" to the effects of a project. The CEQA Guidelines further specify that the alternatives selected should attain most of the basic project objectives and avoid or substantially lessen one or more significant effects of the project. The "range of alternatives" is governed by the "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit an informed and reasoned choice by the lead agency, and to foster meaningful public participation (CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, while also taking into account economic, environmental, social, technological, and legal factors.

6.1 Selection of Alternatives[1]

Chapter 4.0 of this Revised Draft EIR provided a detailed analysis of 20 environmental issue areas for which the Project, which consists of the 2024 General Plan Update (GPU), Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and Climate Action Plan (CAP), could have a significant effect on the environment. The Project would result in significant and/or cumulative environmental impacts related to air quality, agriculture and forestry resources, biological resources, cultural and Tribal cultural resources, energy, greenhouse gas (GHG) emissions, noise, and transportation. In developing the alternatives to be addressed in this chapter, consideration was given regarding their ability to meet the basic objectives of the Project and their potential to eliminate or substantially reduce those significant environmental impacts.

The following specific objectives support the underlying purpose of the Project, assist the City as Lead Agency in developing a reasonable range of alternatives to evaluate in this EIR, and will ultimately aid the Lead Agency in preparing findings and overriding considerations. The following specific objectives have been established for the Project:

- Provide a flexible land use framework that can accommodate job growth in a variety of industries over time while enhancing quality of life in the community;
- Build a strong, diverse economy with well-paying jobs in the City for local residents, reducing the need for long commutes and achieving a better balance of jobs-to-housing;
- Ensure a sustainable, measured rate of growth and efficient delivery of public services;
- Create a destination Downtown Center that makes Moreno Valley a destination City with a modern, innovative brand and that will help establish Moreno Valley as a model community where people choose to live, work, and play;
- Focus new residential and commercial development in corridors to support more frequent and reliable transit service; promote walking and biking; and reduce vehicle miles travelled;
- Foster development of gateways at key entry points into the community that announce arrival with attractive architecture and inviting uses to build Moreno Valley's sense of place;
- Facilitate development of a range of housing options that provides for the needs of current and future residents, including people of all ages, abilities, and incomes levels;

[1] The Court's March 5, 2024 Ruling did not find that Chapter 6.0: Project Alternatives of the 2021 EIR failed to comply with CEQA. Accordingly, this Chapter of the Revised Draft EIR has been revised only to the extent required to compare the environmental impacts of the selected alternatives to those of the MoVal 2040 Project as analyzed in this Revised Draft EIR.

- Accommodate the City's 2021-2029 Regional Housing Needs Allocation (RHNA)through development that is consistent with the approved 6th Cycle Housing Element;
- Reduce community-wide greenhouse gas emissions consistent with Statewide targets;
- Foster vibrant gathering places for locals and visitors to shop, dine, do business, and have fun, providing a range of social interaction opportunities for youth, families, and seniors;
- Enhance neighborhood livability through promoting active lifestyles with indoor and outdoor recreational amenities and prioritizing clean air, water, fresh food, and community health; and
- Encourage mindful stewardship of water, energy, and other environmental resources, and explore technological advancements as a way to enhance current/future needs and lifestyles.

The alternatives addressed in this chapter were selected in consideration of one or more of the following factors:

- The extent to which the alternative would feasibly accomplish most or all of the basic objectives of the Project;
- The extent to which the alternative would avoid or substantially lessen any of the identified significant environmental effects of the Project.
- The appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA Guidelines to consider a "no project" alternative; and to identify an "environmentally superior" alternative in addition to the no project alternative (Section 15126.6[e]).

Based on the criteria described above, this Revised Draft EIR considers the following Project alternatives:

- No Project Alternative;
- Reduced Growth Alternative; and
- Redistributed Growth Alternative.

6.2 Comparison of Impacts

General descriptions of the characteristics of each alternative, along with a discussion of their ability to reduce significant environmental impacts associated with the Project, are provided in the following subsections. Table 6-1 provides a side-by-side comparison of the potential impacts of the alternatives to the impacts of the Project.

Table 6-1 Matrix Comparison of the Project to Alternatives				
Environmental Issue Area	Project	No Project Alternative	Reduced Growth Alternative	Redistributed Growth Alternative
Aesthetics	LTS	Greater/LTS	Similar/LTS	Similar/LTS
Agriculture and Forestry Resources	SU	Less/SU	Less/SU	Less/SU
Air Quality	SU	Similar/SU	Less/SU	Less/SU
Biological Resources	SU	Less/SU	Less/SU	Less/SU
Cultural and Tribal Cultural Resources	SU	Similar/SU	Less/SU	Similar/SU
Energy	LTS	Similar/LTS	Less/LTS	Less/LTS
Greenhouse Gas Emissions	LTS with Mitigation	Greater/SU	Less/LTS with Mitigation	Less/LTS with Mitigation
Land Use/Planning	LTS	Greater/SU	Similar/LTS	Similar/LTS
Noise	SU	Similar/SU	Less/SU	Less/SU
Transportation	SU	Less/SU	Less/SU	Less/SU
LTS = less than significant; SU = significant and unavoidable				

The following issue areas were found to result in less than significant impacts in this EIR and the impact of each of the alternatives would not be significantly different; thus, they are not discussed in further detail:

- Aesthetics
- Geology/Soils
- Hazards & Hazardous Materials
- Hydrology and Water Quality
- Mineral Resources
- Population/Housing
- Public Services and Recreation
- Utilities/Service Systems
- Wildfire

6.3 No Project Alternative

6.3.1 Description

Under the No Project Alternative, the proposed amendments to the 2024 GPU, Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and adoption of the CAP would not occur. Growth in the City would continue to be guided by the 2006 General Plan with the 2024 baseline in place.[2] Under the No Project Alternative, development would continue to occur through site-specific rezoning and General Plan

[2] The Aquabella project has been considered to be part of the No Project Alternative because its development, which will include 15,000 workforce dwelling units, was approved in December 2024, and includes an amendment to the 2006 General Plan.

amendment actions, rather than through a comprehensively planned approach. The planned densities needed to accommodate the region's housing and provide the required levels of affordability would not occur. Planning for mobility infrastructure would continue as it currently exists, without a comprehensive strategy intended to reduce reliance on vehicular travel and promote other forms of mobility.

6.3.2 Analysis

6.3.2.1 Agricultural Resources

The 2024 GPU would result in the conversion of agricultural uses within the Concept Areas (those areas where the GPU proposes land use changes as shown on Figure 3-1) to urban uses. Maximum impacts to mapped farmland with the Concept Areas is shown in Table 4.2-2. The loss of designated farmland, both directly and indirectly within the Concept Areas and throughout the Planning Area, would be considered a significant impact. Feasible mitigation that would meet the objectives of the 2024 GPU does not exist to mitigate direct and cumulative impacts to important farmland to a level less than significant, because the conservation of farmland would be inconsistent with the proposed 2024 GPU goals and updated land use map. Therefore, impacts to agricultural resources would be significant and unavoidable.

The No Project Alternative would maintain the existing General Plan policies and land use map. The existing agricultural policies are focused on retention of agricultural open space for economically viable agricultural options. However, agricultural operations have continued to be disincentivized and no longer reflect economic opportunities for the City since adoption of the existing 2006 General Plan. Farming uses in the Planning Area are limited to intermittent farming activities north of State Route 60 (SR 60) in the northeast portion of the City. Under the No Project Alternative, development would continue consistent with the existing 2006 General Plan land use plan and policies. The existing 2006 General Plan foresaw that agricultural operations may become less important to the City's economic success, and while areas of Prime Farmland are mapped within the Planning Area along Ironwood Avenue, there is no agricultural land use designation on the existing 2006 General Plan land use map. It is conceivable that as land develops under the existing 2006 General Plan, more urban uses would replace agricultural operations. Like the 2024 GPU, no feasible mitigation would exist to reduce these impacts. Therefore, impacts related to agricultural resources would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.3.2.2 Air Quality

The Project would not be consistent with the Air Quality Management Plan (AQMP) as it would generate substantial population growth that exceeds the forecasted growth used in the development of the AQMP. As such, implementation of the Project would not be consistent with the AQMP under the first criterion. Furthermore, the buildout of the proposed land use plan associated with the implementation of the 2024 GPU could contribute to an increase in frequency or severity of air quality violations and delay attainment of the National Ambient

Air Quality Standards (NAAQS), California Ambient Air Quality Standards (CAAQS), or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact. Operation of the development under the implementation of the 2024 GPU would generate criteria air pollutant emissions associated with area, energy, and mobile sources. Future development emissions, depending on project type and size, could exceed the South Coast Air Quality Management District (SCAQMD) project-specific thresholds. Implementation of the proposed Project would not conflict with implementation of transportation control measures (TCM) from the AQMPs, or otherwise lessen emissions reductions associated with these measures. Compliance with the 2024 GPU policies in Section 4.3, Air Quality, would help reduce reliance on automobiles and increase use of alternative transportation modes. Although the Project would include policies to reduce air pollutant emissions through the promotion of transportation and land use design factors, buildout of the 2024 GPU would not be consistent with the AQMP. Impacts would be significant and unavoidable.

The scale and extent of construction activities associated with buildout of the 2024 GPU could exceed the relevant SCAQMD thresholds for some projects, and impacts associated with criteria pollutants during construction were determined to be significant and unavoidable. The buildout of the 2024 GPU would expose sensitive receptors to substantial pollutant concentrations. However, as the specific details for individual future residential projects are unknown at this time, project-level analysis for localized pollutant concentrations impacts cannot be accurately determined using SCAQMD's Localized Significance Threshold (LST) analysis methodology. LSTs are applicable at the project-specific level and are not applicable to long-term planning documents such as a general plan. Depending on the size and location of each individual future development, construction and operational emissions could exceed LSTs. Therefore, it is not feasible to conclude that air pollutant emissions from future development projects would be reduced to levels below the SCAQMD LST thresholds. Therefore, localized air quality impacts would be significant and unavoidable. Impacts to construction health risk would result in a potentially significant impact. Operational chronic hazard impacts would be less than significant. Toxic air impacts to sensitive receptors near industrial sources would be less than significant. The buildout of the 2024 GPU would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people.

The No Project Alternative would constitute buildout of the existing 2006 General Plan. As described in Section 4.3, Buildout of the existing 2006 General Plan would generate 4,566,084 vehicle miles traveled (VMT).[3] Under the 2024 baseline conditions, the City would generate 8,846,399 VMT. The No Project Alternative would result in less VMT than buildout of the 2024 GPU, which would generate 12,669,735 VMT. The No Project Alternative would generate less VMT because the existing 2006 General Plan anticipates less population, housing, and employment growth than the 2024 GPU. Buildout of the existing 2006 General Plan would be largely consistent with the existing land use and zoning designations. It is

[3] City of Moreno Valley, General Plan Draft Program Environmental Impact Report. Section 4.3, Air Quality. 2021, https://www.moval.org/cdd/documents/general-plan-documents-deir.html. Accessed April 15, 2025.

reasonable to assume that since future development under the No Project Alternative would be consistent with the City's existing General Plan land use designations and zoning, future projects would also be required to demonstrate consistency with applicable air quality plans, policies, and regulations because those projects would result in growth already counted in Southern California Association of Government's (SCAG) regional growth projections for the City. However, like buildout of the 2024 GPU, operational emissions under the No Project Alternative would result in emissions in the City that have the potential to exceed the SCAQMD's significance thresholds. Therefore, it is reasonable to assume that impacts would be significant and unavoidable, similar to buildout of the 2024 GPU. Section 4.3 determined that buildout of the 2024 GPU would have significant and unavoidable impacts associated with criteria pollutants during construction. Construction activities associated with the No Project Alternative would generate short-term criteria pollutant emissions that would exceed the SCAQMD's significance thresholds and cumulatively contribute to the nonattainment designations of the Basin. Localized emissions would be similar to the buildout of the 2024 GPU. Impacts to construction health risk would result in a potentially significant impact. Operational chronic hazard impacts would be less than significant. Toxic air impacts to sensitive receptors near industrial sources would be less than significant. Therefore, impacts related to air quality would remain significant and unavoidable, and would be similar to those of the buildout of the 2024 GPU.

6.3.2.3 Biological Resources

Undeveloped lands located throughout the Planning Area are typically comprised of disturbed lands and non-native grasses with small pockets of riparian vegetation occurring within urban canyons as shown in Figure 4.4-1. Native habitats and species are largely limited to areas around the City where lands are in proximity to surrounding conserved natural areas including the San Jacinto Wildlife Area. Known locations of sensitive plants within the City are presented in Figure 4.4-2, and summarized in Table 4.4-2. Specifically, sensitive plants within the City are limited to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)-covered species, southern California black walnut (*Juglans californica*) in the northeastern portion of the City and smooth tarplant (*Centromadia pungens* ssp. *laevis*), within the eastern portion of the City. Locations of sensitive wildlife observations within the City are primarily located to the southeast, adjacent to the Lake Perris State Recreation Area, as well as some areas along the eastern and northern boundaries of the City. Although the 2024 GPU has been designed to minimize impacts to sensitive species by primarily focusing future development and redevelopment within the Concept Areas, buildout under the 2024 GPU would result in potentially significant direct and indirect impacts due to habitat removal within the Concept Areas and throughout the Planning Area. Future site-specific projects would be required to adhere to applicable federal, State and local regulations that provide protections for sensitive species as part of the discretionary approval process for individual development projects. Additionally, a mitigation framework is included to be implemented with the 2024 GPU. However, it is not possible at the program level of analysis to ensure that every impact could be fully mitigated. Therefore, impacts to sensitive habitat and species, and impacts to riparian and jurisdictional wetlands, are determined to remain significant and unavoidable.

Under the No Project Alternative, development would continue consistent with the existing 2006 General Plan land use plan and policies. Vacant lands and those supporting sensitive habitat could be developed consistent with the City's existing land use plan. It is conceivable that as land develops under the City's existing plan, impacts to on-site habitat and species would be removed, resulting in potentially significant impacts to biological resources. At the time of the processing of future site-specific projects, site-specific general biological resource surveys would be required to identify the presence of any sensitive biological resources, including any sensitive plant or wildlife species, and further identify the need for additional protocol/focused surveys for wetlands and/or other known sensitive species. Additionally, future site-specific projects would be required to avoid breeding season construction if there is the potential to remove habitat or mature trees known to support sensitive species of birds. While implementation of such measures would generally serve to reduce impacts to less than significant levels, no site-specific projects have been identified at this time, and it is not possible to ensure that future development could fully mitigate potentially significant impacts despite the applicable regulatory framework. Therefore, impacts to biological resources would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.3.2.4 Cultural and Tribal Cultural Resources

Review of the records search from Eastern Information Center (EIC) and recent aerial photographs identified 48 historic resources that are presented in Table 4.5-1. Of the 48 historic resources that were identified within the Planning Area, eight were determined to be significant (see Section 4.5.1.4.a). Additionally, a search of the EIC identified 255 archaeological resources located throughout the Planning Area. Nine of the identified archaeological resources have been previously recommended eligible for the listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). Forty resources have been recommended not eligible for the NRHP/CRHR. Four resources have been destroyed by construction and the remaining 202 resources have not been evaluated and should be considered potentially significant.

As shown in Figure 4.5-1, the proposed Concept Areas would avoid the majority of the known historic or potentially historic resources within the Planning Area. Nevertheless, the proposed Residential Density Change Concept Area located south of Sunnymead Boulevard and east of Heacock Street would overlap with the location of one resource identified as significant, and two resources recommended eligible for the NRHP. Future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations would also have the potential to impact known historic or potentially historic resources, including unrecorded historical resources that have not been evaluated or may become eligible for listing in the future. Furthermore, implementation of the 2024 GPU would have the potential to impact significant archeological and/or Tribal cultural resources which would be considered a significant impact. A mitigation framework is included to be implemented with the 2024 GPU; however, it is not possible to ensure at a program level of analysis that every impact could be fully mitigated. Therefore, impacts to cultural and Tribal cultural resources would remain significant and unavoidable.

Under the No Project Alternative, development would continue consistent with the existing 2006 General Plan land use designations. The development of currently vacant land, and redevelopment of projects throughout the Planning Area would have the potential to impact known historic or potentially historic resources, including those resources that have not been evaluated or may become eligible for listing in the future. Furthermore, development within vacant lands may result in indirect impacts to the visual and setting integrity to significant historic resources. Like the proposed mitigation framework, future development under the No Project Alternative would be required to implement site-specific historic structural evaluations of on-site buildings that may qualify as historic resources. Additionally, future development would be required to prepare site-specific archaeological surveys and develop project-specific measures as necessary. While implementation of such mitigation measures would generally serve to reduce impacts to less than significant levels, no site-specific projects have been identified at this time, and it is not possible to ensure that every future site-specific project could fully mitigate potentially significant impacts despite the application of mitigation measures. Therefore, impacts to cultural and Tribal cultural resources under the No Project Alternative would remain significant and unavoidable, and would be similar to those resulting from the buildout of the 2024 GPU.

6.3.2.5 Energy

Construction and operation of the buildout of the 2024 GPU would not result in the use of excessive amounts of fuel or other forms of energy. Buildout of the 2024 GPU would result in increased consumption of energy for transportation uses due to projected growth associated with the 2024 GPU. While implementation of the 2024 GPU would result in an increase in VMT and fuel consumption, the 2024 GPU would focus future development and redevelopment within the proposed Concept Areas, which would reduce reliance on vehicular travel and associated fuel consumption. Furthermore, implementation of the 2024 GPU would not conflict with or obstruct implementation of the CALGreen Code and the California Energy Code, or with Southern California Edison's (SCE) and Moreno Valley Utility's (MVU) implementation of the California Renewables Portfolio Standard (RPS).

Under the No Project Alternative, development would reflect development consistent with the existing 2006 General Plan land use designations. While future development projects would be constructed and operated in accordance with existing land use and zoning designations, these activities would still be regulated by the same laws, regulations, plans (excluding the CAP), and policies related to energy use as the Project. Under the No Project Alternative, the City would continue to meet the mandatory energy requirements of the CALGreen Code and the California Energy Code in effect of the time of development. Currently, SCE and MVU, the electricity providers for the City, are on track to achieve future RPS goals. Therefore, impacts to energy, under the No Project Alternative would remain less than significant, and would be similar to those resulting from of the buildout of the 2024 GPU.

6.3.2.6 Greenhouse Gas Emissions

As described in Section 4.8, Greenhouse Gas Emissions, the City is currently not on track to meet Senate Bill (SB) 32 or Assembly Bill (AB) 1279 target goals for 2030 or 2045, respectively. Therefore, the City is not compliant with the California Air Resources Board's (CARB) 2022 Scoping Plan, SB 32, or AB 1279. Impacts related to GHG emissions would be potentially significant; however, with the implementation of the CAP, as described in Mitigation Measure GHG-1 and Mitigation Measure GHG-2, GHG emissions generated by the buildout of the 2024 GPU would be reduced to meet State GHG reduction targets. Therefore, the buildout of the 2024 GPU would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

Under the No Project Alternative, development would be consistent with the existing 2006 General Plan land use designations. Although future development would be consistent with the 2006 General Plan, future projects' potential to generate GHG emissions would be dependent on the construction and operation characteristics of individual projects. Impacts would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Implementation of projects under the No Project Alternative would continue to contribute to global climate change through direct emissions of GHG from on-site area sources and vehicle trips, though to a lesser degree given reduced potential for future development. As the CAP would not be implemented under the No Project Alternative, the City would continue to not be on track to meet SB 32 or AB 1279 target goals, and impacts on GHG emissions would be significant and unavoidable. Therefore, impacts under the No Project Alternative would be greater than those resulting from the buildout of the 2024 GPU.

6.3.2.7 Noise

Under the 2024 GPU, changes to land uses throughout the Concept Areas, coupled with buildout of the City, would result in the increase in ambient noise levels adjacent to a number of roadway segments (see Table 4.13-8) that would likely remain at levels that would expose existing noise-sensitive receptors to ambient noise levels that would be significant. Because the significant noise impacts would be to existing homes and other noise-sensitive uses in an already urbanized area, there is no feasible mitigation, and impacts would remain significant and unavoidable.

Under the 2024 GPU, noise/land use compatibility impacts would occur as shown in Figure 4.13-7. Specifically, significant land use compatibility impacts would result due to future vehicle traffic noise within the Downtown Center and Highway Office/Commercial Concept Areas, as well as within the areas targeted for increased residential density, including between Sunnymead Boulevard, and Cottonwood Avenue; Heacock Street, and Perris Boulevard; south of Ironwood Avenue and north of SR 60 along Moreno Beach Drive; and southwest of the intersection of Krameria Avenue and Perris Boulevard. Proposed 2024 GPU policies would be implemented to reduce significant noise impacts, including that all future

development located in areas where exterior noise levels exceed the land use compatibility standards as defined in the 2024 GPU Noise Element would require site-specific interior noise analyses demonstrating compliance with the interior noise standards of Title 24 and the proposed 2024 GPU. These requirements for site-specific noise analyses would be implemented through submission of a Title 24 Compliance Report to demonstrate interior noise levels of 45 community noise equivalent level (CNEL), ensuring that noise impacts associated with new development would be less than significant.

Construction-related noise and vibration impacts associated with any individual development under the 2024 GPU may occur near noise-sensitive receptors resulting in a significant impact. The 2024 GPU includes a mitigation framework focused on the reduction of construction and vibration-related noise impacts which would be implemented by future site-specific projects. However, while vibration related impacts would be reduced to less than significant levels, general construction noise impacts to existing homes and other noise-sensitive uses in an already urbanized area would remain significant and unavoidable.

Under the No Project Alternative, development would reflect development consistent with the existing 2006 General Plan land use designations. The Planning Area is currently subject to typical urban noises such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities. Existing ambient noise levels throughout the Planning Area range as high as 67.3 one-hour equivalent (L_{eq}). As shown in Figure 4.13-2, existing noise levels at areas located closest to the roadways exceed 60 CNEL. Future site-specific projects would be required to adhere to regulatory standards, existing 2006 General Plan policies, and project-by-project mitigation requiring site-specific noise analyses. However, it is not possible to ensure that every future site-specific project could fully mitigate potentially significant impacts despite the application of mitigation measures and adherence to regulatory standards. Therefore, impacts associated with noise and vibration under the No Project Alternative would remain significant and unavoidable, and would be similar to those resulting from the buildout of the 2024 GPU.

6.3.2.8 Transportation

As described in Section 4.16, Transportation, buildout of the 2024 GPU would not conflict with a plan, ordinance or policy addressing pedestrian and bicycle circulation, and impacts to the circulation system would be less than significant. VMT generated by the buildout of the 2024 GPU would exceed the established threshold of significance. As such VMT generated under buildout of the 2024 GPU would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). VMT impacts would be significant and unavoidable under the buildout of the 2024 GPU. Buildout of the 2024 GPU would not substantially increase hazards or result in inadequate emergency access, and impacts would be less than significant.

Under the No Project Alternative, development would reflect development consistent with the existing 2006 General Plan land use designations. Buildout of the existing 2006 General Plan would generate 4,566,084 VMT. In comparison, buildout of the existing 2006 General Plan would be less than buildout of the 2024 GPU, which would generate 12,669,735 VMT. Buildout of the existing 2006 General Plan would generate less VMT than buildout of the

2024 GPU because the 2006 General Plan anticipates less population, housing, and employment growth than the 2024 GPU. Furthermore, buildout of the existing 2006 General Plan would not include roadway widening proposed under the 2024 GPU goals and policies which would improve traffic conditions, and therefore may result in congestion that could interfere with emergency access and response. Therefore, impacts related to transportation would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.3.2.9 Issues Found Less than Significant in the Revised Draft EIR

As detailed in Section 6.2 above, impacts associated with a number of environmental topics were found to be less than significant in the EIR. For most of these issues, implementation of the No Project Alternative would also result in generally the same less than significant impact, with the exception of aesthetics and land use and planning. Impacts related to aesthetics under the No Project Alternative are anticipated to be greater than the 2024 GPU in the absence of the comprehensive goals and policies that define the character and visual quality of future development in the City. However, since existing General Plan policies would remain in place, impacts are assumed to be less than significant.

Impacts related to land use and planning under the No Project Alternative are anticipated to be greater than under the 2024 GPU. Under the No Project Alternative, the City would not implement various City planning initiatives such as creating new vibrant town centers. Additionally, the Project would not implement a new Mobility Element and CAP to ensure compliance with SB 743 and State GHG reduction targets. The 2024 GPU would also support growth to meet 2040 SCAG projections. Therefore, impacts related to land use and planning under the No Project Alternative would be significant and unavoidable and greater than those resulting from the buildout of the 2024 GPU.

6.3.3 Conclusions

As shown in Table 6-1, the No Project Alternative would result in the similar significant and unavoidable impacts associated with air quality, cultural and Tribal cultural resources, and noise. The No Project Alternative would result in reduced but still significant and unavoidable impacts associated with agriculture and forestry resources, biological resources, and transportation. The No Project Alternative would result in greater significant and unavoidable impacts associated with GHG emissions and land use/planning. The No Project Alternative would result in similar less than significant impacts associated with energy. The No Project Alternative would result in greater but less than significant impacts associated with aesthetics. However, the No Project Alternative would not meet any of the Project objectives because the No Project Alternative would not focus new residential and commercial development in areas that would be designated for growth and, with the exception of the development of the Aquabella project, would not provide residential development to help the City meet its RHNA goals.

6.4 Reduced Growth Alternative

6.4.1 Description

The Reduced Growth Alternative would revise the proposed land use map to reduce the amount of employment growth compared to the 2024 GPU (Figure 6-1).

The Reduced Growth Alternative would also include implementation of the Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments and CAP. This alternative would reduce the maximum permitted floor area ratio (FAR) proposed within the Community Corridors along Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, and Heacock Street. This would reduce the amount of non-residential development within these Community Corridors by approximately 10 to 15 percent compared to the 2024 GPU. This alternative would also remove the proposed Center Mixed Use within the District Specific Plan area, and reduce the footprint of the Downtown Center Concept Area by approximately 111 acres. Additionally, a portion of proposed Highway Office/Commercial Concept Area located north of SR 60 would not receive this new designation, and instead the existing office and residential land use designations from the 2024 baseline conditions would be retained.

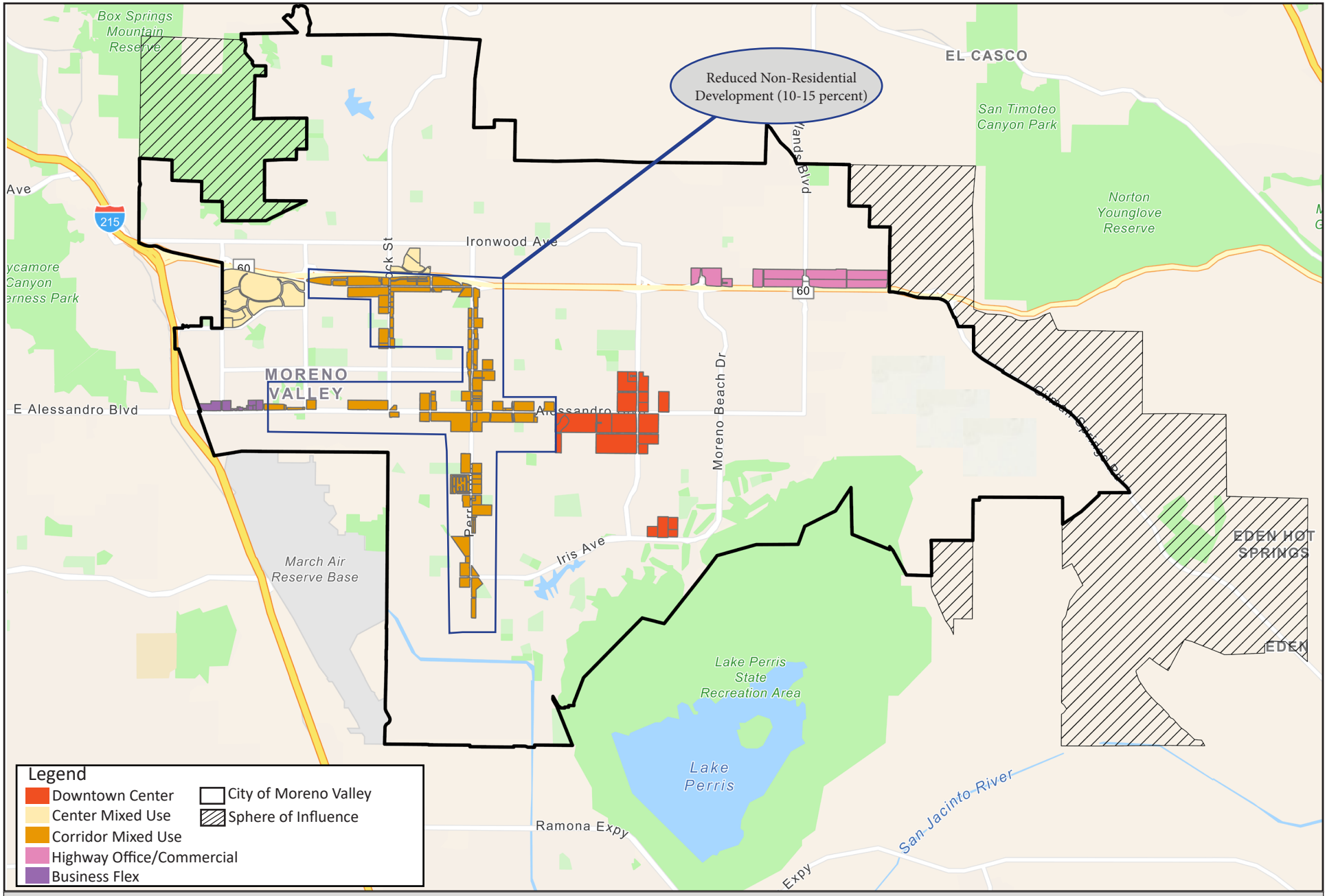


FIGURE 6-1: GROWTH REDUCING ALTERNATIVE

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

6.4.2 Analysis

6.4.2.1 Agricultural Resources

Under the 2024 GPU, agriculturally designated land within the Concept Areas would be converted to urban uses. These conversions would consist primarily of land designated as Farmland of Local Importance within the Downtown Center, and Highway Office/Commercial Concept Area, as well as approximately 15 acres of Prime Farmland within the Highway Office/Commercial Concept Area. The loss of Prime Farmland within the Highway Office/Commercial Concept Area, as well as indirect loss throughout the Planning Area, would be considered significant and unavoidable.

The Reduced Growth Alternative would remove a portion of the Highway Office/Commercial Concept Area that is located on soils designated as Prime Farmland. However, this area, and others that are located on soils designated as Prime Farmland, could still be developed under their current land use designations established under the existing 2006 General Plan. While development would be less intense and could result in incrementally less conversion of existing Prime Farmland, the loss of agriculturally designated lands would be considered significant. There would be no feasible mitigation that would reduce the impact to a less than significant level. Therefore, impacts to agricultural resources under the Reduced Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.2 Air Quality

The 2024 GPU would not be consistent with the AQMP as it would generate substantial population growth that exceeds the forecasted growth used in the development of the AQMP. As such, implementation of the 2024 GPU would not be consistent with the AQMP under the first criterion. Furthermore, the buildout of the proposed land use plan associated with the implementation of the 2024 GPU could contribute to an increase in frequency or severity of air quality violations and delay attainment of the NAAQS, CAAQS, or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact. Operation of the development under the implementation of the 2024 GPU would generate criteria air pollutant emissions associated with area, energy, and mobile sources. Future development emissions, depending on project type and size, could exceed the SCAQMD's project-specific thresholds. Implementation of the proposed Project would not conflict with implementation of TCM from the AQMPs, or otherwise lessen emissions reductions associated with these measures. Compliance with the 2024 GPU policies in Section 4.3, Air Quality, would help reduce reliance on automobiles and increase use of alternative transportation modes. Although the 2024 GPU would include policies to reduce air pollutant emissions through the promotion of transportation and land use design factors, implementation of the 2024 GPU would not be consistent with the AQMP. Impacts would be significant and unavoidable.

The scale and extent of construction activities associated with buildout of the 2024 GPU could exceed the relevant SCAQMD thresholds for some projects, and impacts associated with

criteria pollutants during construction were determined to be significant and unavoidable. Buildout of the 2024 GPU would expose sensitive receptors to substantial pollutant concentrations. However, as the specific details for individual future residential projects are unknown at this time, project-level analysis for localized pollutant concentrations impacts cannot be accurately determined using SCAQMD's LST analysis methodology. LSTs are applicable at the project-specific level and are not applicable to long-term planning documents such as a general plan. Depending on the size and location of each individual future development, construction and operational emissions could exceed LSTs. Therefore, it is not feasible to conclude that air pollutant emissions from future development projects would be reduced to levels below the SCAQMD LST thresholds. Therefore, localized air quality impacts would be significant and unavoidable. Impacts to construction health risk would result in a potentially significant impact. Operational chronic hazard impacts would be less than significant. Toxic air impacts to sensitive receptors near industrial sources would be less than significant. Buildout of the 2024 GPU would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people. The Reduced Growth Alternative would reduce the amount of non-residential development within the proposed Community Corridors by approximately 10 to 15 percent compared to the 2024 GPU, and some portions of the Downtown Center and Highway Office/Commercial Concept Areas would retain their current land use designations. This would result in a reduction of development and VMT, which would also result in a reduction in emissions. While emissions would be reduced, the Reduced Growth Alternative would still experience growth that would exceed the assumptions used to develop the AQMP, and would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timeline attainment of air quality standards. The reduction in development would further reduce exposure of sensitive receptors to substantial pollutant concentrations, and further reduce potential impacts associated with odors. However, the scale and extent of construction activities associated with buildout under this alternative could exceed the relevant SCAQMD thresholds for some projects, and impacts associated with criteria pollutants during construction. Therefore, impacts related to air quality under the Reduced Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.3 Biological Resources

As shown in Figure 4.4-6, sensitive vegetation communities located within the Concept Areas include primarily grassland and coastal Sage Scrub, as well as a small area mapped as "water." Additionally, riparian scrub is identified just outside the Downtown Center Concept Area. Development under the Project would result in a loss of these habitats. While a mitigation framework is proposed, it is not possible to ensure that every impact could be fully mitigated at a program level of analysis. Therefore, the loss of sensitive habitat, both directly and indirectly, within the Concept Areas and throughout the Planning Area, would be considered significant and unavoidable.

The Reduced Growth Alternative would reduce the footprints of the Downtown Center and Highway Office/Commercial Concept Areas that have the potential to support sensitive species. However, these areas could still be developed under their current land use

designations established under the existing 2006 General Plan. While development would be less intense and could result in an incrementally reduced impact to biological resources, impacts to sensitive species would be considered significant. Like the 2024 GPU, without specific development plans, there is no certainty that the implementation of mitigation measures would reduce the impact to a level less than significant. Therefore, impacts to biological resources under the Reduced Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.4 Cultural and Tribal Cultural Resources

Figure 4.5-1 presents the locations of known historic resources within the Planning Area, while Figure 4.5-2 presents the locations of archeologically sensitive areas. As previously stated, the significance levels of much of the identified archaeological resources located throughout the Planning Area have not been evaluated and should be considered potentially significant. Development under the 2024 GPU could result in a loss of known and currently unknown archeological and Tribal cultural resources. While a mitigation framework is proposed, at a program level of analysis it is not possible to ensure that every impact could be fully mitigated. Therefore, the potential loss of cultural and Tribal cultural resources, both directly and indirectly, within the Concept Areas and throughout the Planning Area, would be considered significant and unavoidable.

The changes to the land use plan associated with the Reduced Growth Alternative would not avoid any overlap with known historic resources, and would slightly reduce the overlap of the Downtown Center with the Moreno Hills Complex archaeologically sensitive area. Additionally, development within the reduced Concept Areas and other areas subject to current land use designations established under the existing 2006 General Plan would have the potential to impact unknown historical archaeological, and Tribal cultural resources, which would be considered a significant impact. Like the 2024 GPU , without specific development plans, there is no certainty that the implementation of mitigation measures would reduce the impact to a level less than significant. Therefore, impacts to cultural and Tribal cultural resources under the Reduced Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.5 Energy

Construction and operation of the buildout of the 2024 GPU would not result in the use of excessive amounts of fuel or other forms of energy. Buildout of the 2024 GPU would result in increased consumption of energy for transportation uses due to projected growth associated with the 2024 GPU. While implementation of the 2024 GPU would result in an increase in VMT and fuel consumption, the 2024 GPU would focus future development and redevelopment within the proposed Concept Areas, which would reduce reliance on vehicular travel and associated fuel consumption. Furthermore, implementation of the 2024 GPU would not conflict with or obstruct implementation of the CALGreen Code and the California Energy Code, or with SCE's and MVU's implementation of the RPS.

The Reduced Growth Alternative would reduce the amount of non-residential development within the proposed Community Corridors by approximately 10 to 15 percent compared to

the Project, and some portions of the Downtown Center and Highway Office/Commercial Concept Areas would retain their current land use designations. This would result in a reduction of development, VMT, and energy consumption during Project construction and operation. Similar to the Project, the projects under the Reduced Growth Alternative would have to be compliant with CALGreen Code, California Energy Code, or with SCE's and MVU's implementation of the RPS. Therefore, impacts related to energy under the Reduced Growth Alternative would be less than significant, and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.6 Greenhouse Gas Emissions

As described in Section 4.8, Greenhouse Gas Emissions, the City is currently not on track to meet SB 32 or AB 1279 target goals for 2030 or 2045, respectively. Therefore, the City is not compliant with the CARB's 2022 Scoping Plan, SB 32, or AB 1279. Impacts related to GHG emissions would be potentially significant; however, with the implementation of the CAP, as described in Mitigation Measure **GHG-1** and Mitigation Measure **GHG-2**, GHG emissions generated by the buildout of the 2024 GPU would be reduced to meet State GHG reduction targets. Therefore, buildout of the 2024 GPU would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

The Reduced Growth Alternative would reduce the amount of non-residential development within the proposed Community Corridors by approximately 10 to 15 percent compared to the 2024 GPU, and some portions of the Downtown Center and Highway Office/Commercial Concept Areas would retain their current land use designations. Similar to the 2024 GPU, the Reduced Growth Alternative would include the adoption of the CAP, which would reduce GHG emissions to meet State GHG reduction targets. The Reduced Growth Alternative would reduce GHG emission associated with energy, transportation, solid waste, wastewater, and water. Therefore, impacts related to GHG emissions under the Reduced Growth Alternative would be less than significant with implementation of similar mitigation measures and would be less than those resulting from the buildout of the 2024 GPU.

6.4.2.7 Noise

Under the 2024 GPU, noise/land use compatibility impacts would occur as shown in Figure 4.13-7. Specifically, significant land use compatibility impacts would result due to future vehicle traffic noise within the Downtown Center and Highway Office/Commercial Concept Areas, as well as within the areas targeted for increased residential density, including between Sunnymead Boulevard, and Cottonwood Avenue; Heacock Street, and Perris Boulevard; south of Ironwood Avenue and north of SR 60 along Moreno Beach Drive; and southwest of the intersection of Krameria Avenue and Perris Boulevard. Proposed 2024 GPU policies would be implemented to reduce significant noise impacts, including that all future development located in areas where exterior noise levels exceed the land use compatibility standards as defined in the 2024 GPU Noise Element would require site-specific interior noise analyses demonstrating compliance with the interior noise standards of Title 24 and

the proposed 2024 GPU. These requirements for site-specific noise analyses would be implemented through submission of a Title 24 Compliance Report to demonstrate interior noise levels of 45 CNEL, ensuring that noise impacts associated with new development would be less than significant.

Construction-related noise and vibration impacts associated with any individual development under the 2024 GPU may occur near noise-sensitive receptors resulting in a significant impact. The 2024 GPU includes a mitigation framework focused on the reduction of construction and vibration-related noise impacts which would be implemented by future site-specific projects. However, while vibration related impacts would be reduced to less than significant levels, general construction noise impacts to existing homes and other noise-sensitive uses in an already urbanized area would remain significant and unavoidable.

The Reduced Growth Alternative would reduce employment development opportunities within the Downtown Center, Corridor Mixed Use and Highway Office/Commercial Concept Areas, which currently experience noise levels greater than 65 CNEL. The portions of the Downtown Center and Highway Office/Commercial that would not receive the new designation could still be developed under their current land use designations established under the existing 2006 General Plan, and the Community Corridors would be developed with slightly less density. Construction related noise impacts under this alternative would be similar to those that would result from the buildout of the 2024 GPU. Additionally, new residential uses could result in noise/land use compatibility impacts similar to the Project. However, the reduced growth under this alternative would result in a reduction of transportation noise compared to the 2024 GPU due to the reduced level of construction activities and operation upon buildout. Therefore, impacts related to noise under the Reduced Growth Alternative would be significant and unavoidable, and would be less compared to the Project.

6.4.2.8 Transportation

As described in Section 4.16, Transportation, the buildout of the 2024 GPU would not conflict with a plan, ordinance or policy addressing pedestrian and bicycle circulation, and impacts to the circulation system would be less than significant. VMT generated by the buildout of the 2024 GPU would exceed the established threshold of significance. As such VMT generated under buildout of the 2024 GPU would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). VMT impacts would be significant and unavoidable under buildout of the 2024 GPU. Buildout of the 2024 GPU would not substantially increase hazards or result in inadequate emergency access, and impacts would be less than significant.

The Reduced Growth Alternative would reduce the amount of non-residential development within the proposed Community Corridors by approximately 10 to 15 percent compared to the 2024 GPU, and some portions of the Downtown Center and Highway Office/Commercial Concept Areas would retain their current land use designations. This would reduce VMT compared to the 2024 GPU. All other impacts would be similar to those resulting from the buildout of the 2024 GPU. Therefore, impacts related to transportation under the Reduced

Growth Alternative would remain significant and unavoidable, and would be less those resulting from the buildout of the 2024 GPU.

6.4.2.9 Issues Found Less than Significant in the Revised Draft EIR

As detailed in Section 6.2 above, impacts associated with a number of environmental topics were found to be less than significant in this Revised Draft EIR. While implementation of the Reduced Growth Alternative would shift land uses in certain areas of the City, it would still implement new 2024 GPU goals and policies and the CAP. All environmental topics found to be less than significant for the Project in this EIR area are also anticipated to result in less than significant impacts under the Reduced Growth Alternative.

6.4.3 Conclusions

As shown in Table 6-1, the Reduced Growth Alternative would result in reduced impacts compared to the buildout of the 2024 GPU for agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, energy, GHG emissions, noise, and transportation. Under the Reduced Growth Alternative, impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, noise, and transportation would remain significant and unavoidable. Impacts on aesthetics, energy, GHG emissions, and land use/planning would be less than significant.

The Reduced Growth Alternative would not meet as many Project's primary objectives compared to the 2024 GPU. The elimination of employment opportunities would not accommodate job growth, build a diverse economy, improved rate of economic growth, or focus commercial uses in corridors to the same degree as the 2024 GPU. Furthermore, as the Reduced Growth Alternative would reduce mixed use development that would be proposed within the Downtown Center Concept Area as compared to the 2024 GPU, this alternative would, with the exception of the development of the Aquabella project, provide less residential development which would not help the City meet its RHNA goals.

6.5 Redistributed Growth Alternative

6.5.1 Description

The Redistributed Growth Alternative would result in the same level of growth as the proposed plan, but would redistribute growth from the proposed Community Corridor Concept Areas to the Downtown Center Concept Area (Figure 6-2). This alternative would reduce the maximum permitted density and intensity in the Community Corridor Concept Areas, thereby reducing future development proposed along Sunnymead Boulevard, Alessandro Boulevard, Perris Boulevard, and Heacock Street by approximately 10 to 15 percent compared to the 2024 GPU. The reduced growth capacity from these areas would be redistributed to the Downtown Center Concept Area. This alternative would also remove a portion of the proposed Highway Office/Commercial Concept Area located north of SR 60 and the existing office and residential land use designations as reflected by the existing 2024 baseline conditions would be retained. Redistribution of land uses associated with this alternative would not alter the total amount of residential, commercial, and office land uses compared to the 2024 GPU. The Redistributed Growth Alternative also includes implementation of the Associated Zoning Text Amendments to Title 9 (Planning & Zoning) and Zoning Atlas Amendments, and CAP.

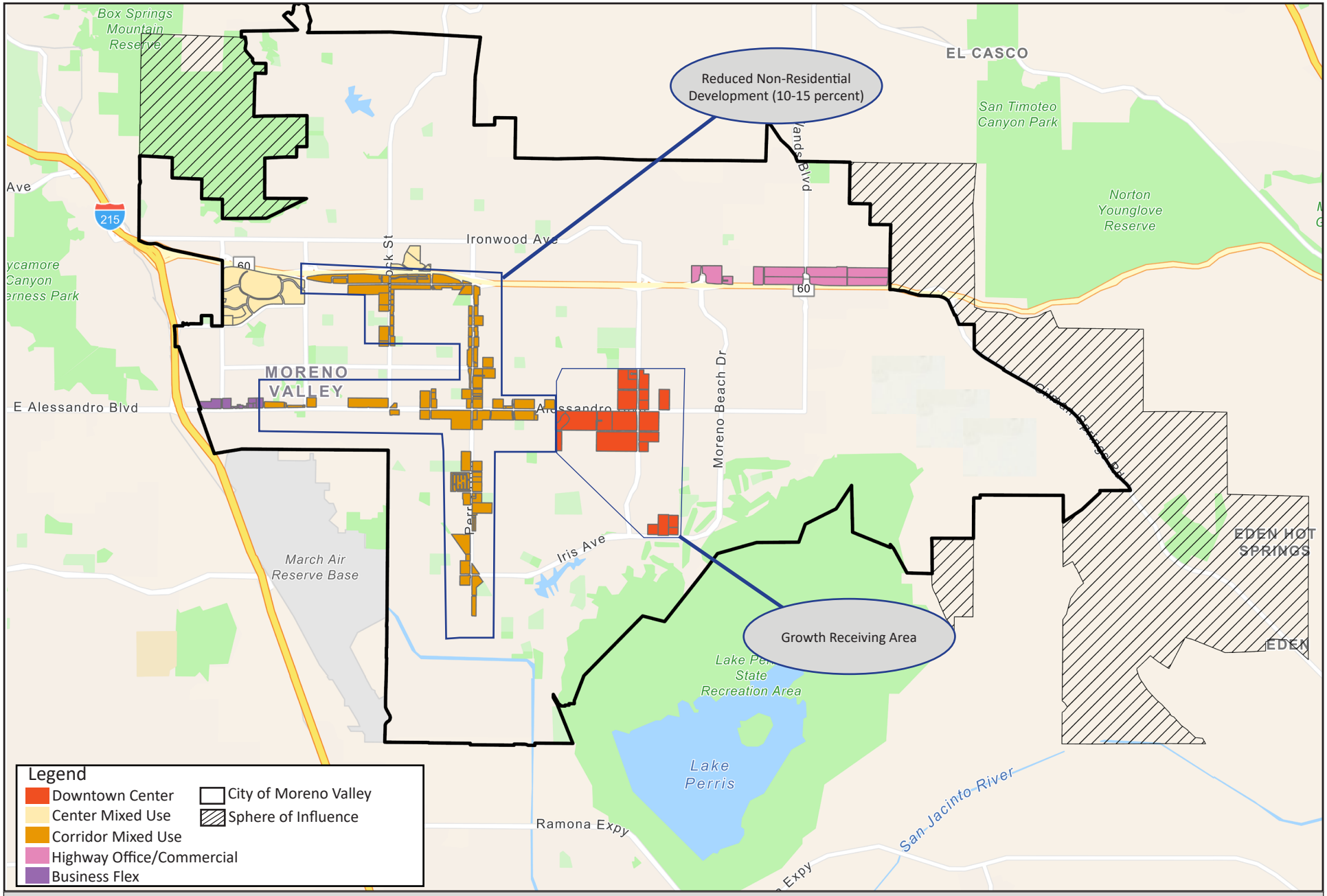


FIGURE 6-2: REDISTRIBUTED GROWTH ALTERNATIVE

MoVal 2040 Revised Draft Program EIR

NOT TO SCALE

Kimley»Horn

6.5.2 Analysis

6.5.2.1 Agricultural Resources

Under the 2024 GPU, agriculturally designated land within the Concept Areas would be converted to urban uses. These conversions would consist primarily of land designated as Farmland of Local Importance within the Downtown Center and Highway Office/Commercial Concept Area, as well as approximately 15 acres of Prime Farmland within the Highway Office/Commercial Concept Area. The loss of Prime Farmland within the Highway Office/Commercial Concept Area, as well as indirect loss throughout the Planning Area, would be considered significant and unavoidable.

The transfer of density from the Community Corridors to the Downtown Center would not affect impacts related to agricultural resources because the Downtown Center is already identified for development. The Reduced Growth Alternative would remove a portion of the Highway Office/Commercial Concept Area that is located on soils designated as Prime Farmland. However, this area, and others that are located on soils designated as Prime Farmland, could still be developed under their current land use designations established under the existing 2006 General Plan. While development would be less intense and could result in incrementally less conversion of existing Prime Farmland, the loss of agriculturally designated lands would be considered significant. There would be no feasible mitigation that would reduce the impact to a less than significant level. Therefore, impacts to agricultural resources under the Redistributed Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.2 Air Quality

The 2024 GPU would not be consistent with the AQMP as it would generate substantial population growth that exceeds the forecasted growth used in the development of the AQMP. As such, implementation of the 2024 GPU would not be consistent with the AQMP under the first criterion. Furthermore, the buildout of the proposed land use plan associated with the implementation of the 2024 GPU could contribute to an increase in frequency or severity of air quality violations and delay attainment of the NAAQS, CAAQS, or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact. Operation of the development under the implementation of the 2024 GPU would generate criteria air pollutant emissions associated with area, energy, and mobile sources. Future development emissions, depending on project type and size, could exceed the SCAQMD project-specific thresholds. Implementation of the 2024 GPU would not conflict with implementation of TCM from the AQMPs, or otherwise lessen emissions reductions associated with these measures. Compliance with the 2024 GPU policies in Section 4.3, Air Quality, would help reduce reliance on automobiles and increase use of alternative transportation modes. Although the 2024 GPU would include policies to reduce air pollutant emissions through the promotion of transportation and land use design factors, buildout of the 2024 GPU would not be consistent with the AQMP. Impacts would be significant and unavoidable.

The scale and extent of construction activities associated with buildout of the 2024 GPU could exceed the relevant SCAQMD thresholds for some projects, and impacts associated with criteria pollutants during construction were determined to be significant and unavoidable. Buildout of the 2024 GPU would expose sensitive receptors to substantial pollutant concentrations. However, as the specific details for individual future residential projects are unknown at this time, project-level analysis for localized pollutant concentrations impacts cannot be accurately determined using SCAQMD's LST analysis methodology. LSTs are applicable at the project-specific level and are not applicable to long-term planning documents such as a general plan. Depending on the size and location of each individual future development, construction and operational emissions could exceed LSTs. Therefore, it is not feasible to conclude that air pollutant emissions from future development projects would be reduced to levels below the SCAQMD LST thresholds. Therefore, localized air quality impacts would be significant and unavoidable. Impacts to construction health risk would result in a potentially significant impact. Operational chronic hazard impacts would be less than significant. Toxic air impacts to sensitive receptors near industrial sources would be less than significant. Buildout of the 2024 GPU would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Redistributed Growth Alternative would reduce permitted density and intensity within the proposed Community Corridors by approximately 10 to 15 percent, and transfer this development to the Downtown Center. This would further improve the Downtown Center as a mixed-use activity centers that is pedestrian-friendly community center linked to the regional transit system, which in turn would reduce VMT compared to the buildout of the 2024 GPU. This in turn would reduce air quality emissions, ensuring that this alternative would not exceed the assumptions used to develop the AQMP, and would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timeline attainment of air quality standards. Similarly, the reduced emissions compared to the Project would further reduce exposure of sensitive receptors to substantial pollutant concentrations, and further avoid potential impacts associated with odors. However, the scale and extent of construction activities associated with buildout under this alternative could exceed the relevant SCAQMD thresholds for some projects, and impacts associated with criteria pollutants during construction. Therefore, impacts related to air quality under the Redistributed Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.3 Biological Resources

Vegetation communities located within the Corridor Mixed Use and Highway Office/Commercial Concept Areas include developed/ disturbed and grassland (Highway Office/Commercial Concept Area). Development under the 2024 GPU would result in a loss of these habitats, as well as small swaths of Coastal sage scrub and riparian habitat within and adjacent to the Downtown Center Concept Area. While a mitigation framework is proposed, at a program level of analysis it is not possible to ensure that every impact could be fully mitigated. Therefore, the loss of sensitive habitat, both directly and indirectly, within the Concept Areas and throughout the Planning Area, would be considered significant and unavoidable.

The transfer of density from the Community Corridors to the Downtown Center would not affect impacts related to agricultural resources because the Downtown Center is already identified for development. The Reduced Growth Alternative would remove a portion of the Highway Office/Commercial Concept Area that has the potential to support sensitive species. However, this area could still be developed under their current land use designations established under the existing 2006 General Plan. While development would be less intense and could result in an incrementally reduced impact to biological resources, impacts to sensitive species would be considered significant. Like the 2024 GPU, without specific development plans, there is no certainty that the implementation of mitigation measures would reduce the impact to a less than significant level. Therefore, impacts to biological resources, under the Redistributed Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.4 Cultural and Tribal Cultural Resources

Review of the records search from EIC and recent aerial photographs identified 48 historic resources that are presented in Table 4.5-1. Of the 48 historic resources that were identified within the Planning Area, eight were determined to be significant (see Section 4.5.1.4.a). Additionally, a search of the EIC identified 255 archaeological resources located throughout the Planning Area. Nine of the identified archaeological resources have been previously recommended eligible for the listing in the NRHP and the CRHR. Forty resources have been recommended not eligible for the NRHP/CRHR. Four resources have been destroyed by construction and the remaining 202 resources have not been evaluated and should be considered potentially significant.

As shown in Figure 4.5-1, the proposed Concept Areas would avoid the majority of the known historic or potentially historic resources within the Planning Area. Nevertheless, the proposed Residential Density Change Concept Area located south of Sunnymead Boulevard and east of Heacock Street would overlap with the location of one resource identified as significant, and two resources recommended eligible for the NRHP. Future development and redevelopment outside of the proposed Concept Areas consistent with the existing 2006 General Plan land use designations would also have the potential to impact known historic or potentially historic resources, including unrecorded historical resources that have not been evaluated or may become eligible for listing in the future. Furthermore, implementation of the Project would have the potential to impact significant archeological and/or Tribal cultural resources which would be considered a significant impact. A mitigation framework is included to be implemented with the 2024 GPU; however, it is not possible to ensure at a program level of analysis that every impact could be fully mitigated. Therefore, impacts to cultural and Tribal cultural resources would remain significant and unavoidable.

The changes to the land use plan associated with the Redistributed Growth Alternative would not avoid any overlap with known historic resources or archaeologically sensitive areas. Additionally, development within the reduced Concept Areas and other areas subject to current land use designations as reflected by the 2024 baseline conditions would have the potential to impact unknown historical, archaeological, and Tribal cultural resources, which would be considered a significant impact. Like the 2024 GPU, without specific development

plans, there is no certainty that the implementation of mitigation measures would reduce the impact to a level less than significant. Therefore, impacts to cultural and Tribal cultural resources under the Redistributed Growth Alternative would remain significant and unavoidable, and would be similar to those resulting from the buildout of the 2024 GPU.

6.5.2.5 Energy

Construction and operation of the buildout of the 2024 GPU would not result in the use of excessive amounts of fuel or other forms of energy. Buildout of the 2024 GPU would result in increased consumption of energy for transportation uses due to projected growth associated with the 2024 GPU. While implementation of the 2024 GPU would result in an increase in VMT and fuel consumption, the Project would focus future development and redevelopment within the proposed Concept Areas, which would reduce reliance on vehicular travel and associated fuel consumption. Furthermore, implementation of the 2024 GPU would not conflict with or obstruct implementation of the CALGreen Code and the California Energy Code, or with SCE's and MVU's implementation of the RPS.

The Redistributed Growth Alternative would reduce permitted density and intensity within the proposed Community Corridors by approximately 10 to 15 percent, and transfer this development to the Downtown Center. This would further improve the Downtown Center as a mixed-use activity centers that is pedestrian-friendly community center linked to the regional transit system, which in turn would reduce VMT compared to the Project. The Redistributed Growth Alternative would result in a similar amount of energy consumption during Project construction and operation when compared to the Project, with a minimal reduction in transportation energy due to the focused development in the Downtown Center. Similar to the Project, the projects under the Redistributed Growth Alternative would have to be compliant with the CALGreen Code, California Energy Code, or with SCE's and MVU's implementation of the RPS. Therefore, impacts related to energy under the Redistributed Growth Alternative would be less than significant and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.6 Greenhouse Gas Emissions

As described in Section 4.8, Greenhouse Gas Emissions, the City is currently not on track to meet SB 32 or AB 1279 target goals for 2030 or 2045, respectively. Therefore, the City is not compliant with the CARB's 2022 Scoping Plan, SB 32, or AB 1279. Impacts related to GHG emissions would be potentially significant; however, with the implementation of the CAP as described in Mitigation Measure **GHG-1** and Mitigation Measure **GHG-2**, GHG emissions generated by the buildout of the 2024 GPU would be reduced to meet State GHG reduction targets. Therefore, the buildout of the 2024 GPU would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, and impacts would be less than significant.

The Redistributed Growth Alternative would reduce permitted density and intensity within the proposed Community Corridors by approximately 10 to 15 percent compared to the 2024

GPU, and transfer this development to the Downtown Center. This would further improve the Downtown Center as a mixed-use activity centers that is pedestrian-friendly community center linked to the regional transit system, which in turn would reduce VMT compared to the 2024 GPU. Furthermore, the inclusion of the growth of the Downtown Center alongside the buildout of Aquabella would provide more concentrated and co-located mixed-use development which would result in an associated reduction in VMT and GHG emissions. Similar to the 2024 GPU, the Redistributed Growth Alternative would include the adoption of the CAP, which would reduce GHG emissions to meet State GHG reduction targets. The Redistributed Growth Alternative would reduce GHG emissions associated with energy and transportation as the development of the Downtown Center would encourage walkability and non-vehicular forms of transportation. Therefore, impacts related to GHG emissions under the Reduced Growth Alternative would be less than significant with implementation of similar mitigation measures and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.7 Noise

Under the 2024 GPU, noise/land use compatibility impacts would occur as shown in Figure 4.13-7. Specifically, significant land use compatibility impacts would result due to future vehicle traffic noise within the Downtown Center and Highway Office/Commercial Concept Areas, as well as within the areas targeted for increased residential density, including between Sunnymead Boulevard, and Cottonwood Avenue; Heacock Street, and Perris Boulevard; south of Ironwood Avenue and north of SR 60 along Moreno Beach Drive; and southwest of the intersection of Krameria Avenue and Perris Boulevard. 2024 GPU policies would be implemented to reduce significant noise impacts, including that all future development located in areas where exterior noise levels exceed the land use compatibility standards as defined in the 2024 GPU Noise Element would require site-specific interior noise analyses demonstrating compliance with the interior noise standards of Title 24 and the 2024 GPU. These requirements for site-specific noise analyses would be implemented through submission of a Title 24 Compliance Report to demonstrate interior noise levels of 45 CNEL, ensuring that noise impacts associated with new development would be less than significant.

Construction-related noise and vibration impacts associated with any individual development under the 2024 GPU may occur near noise-sensitive receptors resulting in a significant impact. The 2024 GPU includes a mitigation framework focused on the reduction of construction and vibration-related noise impacts which would be implemented by future site-specific projects. However, while vibration related impacts would be reduced to less than significant levels, general construction noise impacts to existing homes and other noise-sensitive uses in an already urbanized area would remain significant and unavoidable.

The Redistributed Growth Alternative would reduce permitted density and intensity within the proposed Community Corridors by approximately 10 to 15 percent, and transfer this development to the Downtown Center and transfer this growth to the Downtown Center Concept Area. This would in turn reduce noise associated with vehicles in the Community Corridor Concept Areas compared to the 2024 GPU, which could reduce noise levels by

sensitive receptors. All other impacts would be similar to those that would result from the buildout of the 2024 GPU. Therefore, impacts related to noise under the Redistributed Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.8 Transportation

As described in Section 4.16, Transportation, the buildout of the 2024 GPU would not conflict with a plan, ordinance or policy addressing pedestrian and bicycle circulation, and impacts to the circulation system would be less than significant. VMT generated by the buildout of the 2024 GPU would exceed the established threshold of significance. As such VMT generated under buildout of the 2024 GPU would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). VMT impacts would be significant and unavoidable under the 2024 GPU. Buildout of the 2024 GPU would not substantially increase hazards or result in inadequate emergency access, and impacts would be less than significant.

The Redistributed Growth Alternative would reduce permitted density and intensity within the proposed Community Corridors by approximately 10 to 15 percent, and transfer this development to the Downtown Center. This would further improve the Downtown Center as a mixed-use activity center that is pedestrian-friendly community center linked to the regional transit system, which in turn would reduce VMT compared to those resulting from buildout of the 2024 GPU. All other impacts would be similar to the 2024 GPU. Therefore, impacts related to transportation under the Redistributed Growth Alternative would remain significant and unavoidable, and would be less than those resulting from the buildout of the 2024 GPU.

6.5.2.9 Issues Found Less than Significant in the Revised Draft EIR

As detailed in Section 6.2 above, impacts associated with a number of environmental topics were found to be less than significant for the Project in this Revised Draft EIR. While implementation of the Redistributed Growth Alternative would shift land uses in certain areas of the City, it would still implement new 2024 GPU goals and policies and the CAP. All environmental topics found to be less than significant for the Project in this EIR are also anticipated to result in less than significant impacts under the Redistributed Growth Alternative.

6.5.4 Conclusions

As shown in Table 6-1, the Redistributed Growth Alternative would result in reduced impacts compared to the buildout of the 2024 GPU for agriculture and forestry resources, air quality, biological resources, energy, GHG emissions, noise, and transportation. Impacts on cultural and Tribal cultural resources would be similar compared to the buildout of the 2024 GPU. Under the Redistributed Growth Alternative, impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, noise, and

transportation would remain significant and unavoidable. Impacts on aesthetics, energy, GHG emissions, and land use/planning would be less than significant.

The Redistributed Growth Alternative would meet most of the Project's primary objectives compared to the 2024 GPU. The redistribution of employment opportunities does not meet the objectives of creating high development corridors to the same degree as the 2024 GPU because the development that could include employment opportunities would be focused on the Downtown Center Area and not spread between both the Downtown Center Area and the Community Corridor Concept Areas. Additionally, while development within the Downtown Center will require significant planning effort before housing can be constructed, the approved buildout of the Aquabella project would provide more concentrated and co-located mixed-use development within the Downtown Center Area. Housing units needed to achieve RHNA targets would still be developed under the Redistributed Growth Alternative. The Redistributed Growth Alternative would still provide all the economic benefits anticipated from the buildout of the 2024 GPU, as well as meet the other objectives.

6.6 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify the environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must identify an environmentally superior alternative from the other alternatives. The Project itself may not be identified as the environmentally superior alternative.

The Reduced Growth Alternative is the environmentally superior alternative because it would have a lesser impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, energy, GHG emissions, noise, and transportation when compared to the Project. Although impacts would be reduced, impacts on agriculture and forestry resources, air quality, biological resources, cultural and Tribal cultural resources, noise, and transportation would remain significant and avoidable. This alternative would reduce most significant impacts, but not to below a level of significance, while still meeting most objectives of the 2024 GPU. However, the Reduced Growth Alternative would not meet as many of the 2024 GPU's primary objectives as the 2024 GPU itself. The elimination of employment opportunities would not accommodate job growth, build a diverse economy, improved rate of economic growth, or focus commercial uses in corridors to the same degree as the 2024 GPU. Furthermore, as the Reduced Growth Alternative would reduce mixed use development that would be proposed within the Downtown Center Concept Area as compared to the 2024 GPU, this alternative would provide less residential development, with the exception which would not help the City meet its RHNA goals. Therefore, the Reduced Growth Alternative is not recommended for adoption.

This page intentionally left blank.

7

NOTE TO READER: Pursuant to CEQA Guidelines Section 15088.5(c), this Chapter sets forth all of the additions and deletions to the original version of Chapter 7, prior to the issuance of the Peremptory Writ of Mandate, dated May 6, 2024 (Riverside Superior Court Case No. CVRI2103300), which was based upon the "Statement of Decision Re Hearing on Peremptory Writ of Mandate," dated March 5, 2024, in which the Court granted the Petition specifically on the issues of inadequate baseline, air quality/climate changes (greenhouse gas emissions)/energy use analyses, but denied the Petition as to land use. See Appendix I, Strikethrough Version of the Revised Draft Program EIR, for a redlined version of the Chapter.

Chapter 7
EIR References

7.1 Persons Involved in the Preparation of the EIR

City of Moreno Valley

Sean Kelleher, Assistant City Manager
Angelica Frausto-Lupo, Community Developer Director
Claudia Manrique, Associate Planner
Emily Elliott, Planning Consultant
Steve Quintanilla, City Attorney
Chris Ormsby, Senior Planner
Patty Nevins, Planning Official

Kimley-Horn and Associates, Inc.

Heidi Rous, Project Manager
Jessie Fan, Deputy Project Manager
Mayra Garcia, Assistant Project Manager

Ace Malisos, Air Quality, Health Effects and Health Risk Assessment, and Greenhouse Gas Specialist
Noemi Wyss, Air Quality, Health Effects and Health Risk Assessment, and Greenhouse Gas Specialist
Olivia Chan, Energy and Noise Specialist
Dharma Truong, Energy and Noise Analyst
Daniel Karz, Air Quality and Greenhouse Gas Analyst
Kennedy Caudle, Analyst
Hannah Chun, Analyst
Rachel Park, Analyst
Mehul Champaneri, Transportation Specialist
Atticus Washington, Transportation Analyst
Cameron Bauer, GIS Specialist
Jin Choi, GIS Specialist

Rincon Consultants, Inc.

Erik Feldman, Principal
Emily Saul, Sustainability Planner
Hannah Mize, Sustainability Planner

RECON Environmental, Inc.

Nick Larkin, Senior Project Manager
Jennifer Campos, Environmental Principal Director
Jesse Fleming, Senior Air Quality, Energy, Greenhouse Gas, and Noise Specialist
Carmen Zepeda-Herman, Archaeology Project Director
Beth Procsal, Senior Biologist
Jade Wool, Research Assistant
Stacey Higgins, Senior Production Specialist
Frank McDermott, GIS/UAV Coordinator

7.2 Documents Incorporated by Reference

- World Logistics Center Specific Plan (Adopted August 25, 2015)
- World Logistics Center Specific Plan Revised Final EIR, April 2020 (State Clearinghouse No. 2012021045)
- Aquabella Specific Plan Amendment (Adopted December 3, 2024)
- Aquabella Specific Plan Amendment Subsequent Final EIR, Certified November 19, 2024 (State Clearinghouse No. 2023100145

7.3 Documents and Websites Consulted

Air Force Civil Engineer Center (AFCEC)

n.d MARCH History, https://www.afcec.af.mil/Home/BRAC/March/History/. Accessed February 17, 2025.

Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. Jones, C. A. Jones, F. Reid, D. W. Rice
2003 Revised Checklist of North American Mammals North of Mexico. *Occasional Papers, Museum of Texas Tech University* No. 229. December.

Bay Area Air Quality Management District
2017 California Environmental Quality Act Air Quality Guidelines. May 2017.

Bean, Lowell John
1978 Cahuilla. In *California,* edited by Robert F. Heizer, pp. 575-587. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bean, Lowell John, and F. Shipek
1978 Luiseño. In *California*, edited by R. F. Heizer, pp. 550-563. Handbook of North American Indians, vol. 8, W.C. Sturtevant, general editor, Smithosonian Institute. Washington, D.C.

Bean, Lowell John, and C. R. Smith
1978 Gabrielino. In *California,* edited by Robert F. Heizer. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bedwell, S. F.
1970 *Prehistory and Environment of the Pluvial Fork Rock Lake Area, South Central Oregon.* Doctoral dissertation, Department of Anthropology, University of Oregon, Eugene.

Beier, P. and S. Loe
1992 A Checklist for Evaluating Impacts to Wildlife Movement Corridors. Wildlife Society Bulletin. 20:434-440.

Berger, Elliott H, and Kladden, Cynthia A,
2010 Noise Navigator Sound Level Database with Over 1700 Measurement Values, July 6, 2010.

California Air Pollution Control Officers Association (CAPCOA)
2009 *Health Risk Assessments for Proposed Land Use Projects*. July 2009.

2010 Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. August 2010.

2017 California Emissions Estimator model (CalEEMod). User's Guide Version 2016.3.2. October.

California Air Resources Board (CARB)

n.d Advanced Clean Trucks Regulation, https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks. Accessed April 2025.

n.d Advanced Clean Trucks (ACT) Regulation Summary, https://ww2.arb.ca.gov/advanced-clean-trucks-act-regulation-summary. Accessed April 2025.

n.d California Air Resources Board, Low-Emission Vehicle Program, https://ww2.arb.ca.gov/our-work/programs/low-emission-vehicle-program. Accessed April 2025.

n.d Overview: Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed September 2024.

n.d Off-Road Emissions Inventory, https://arb.ca.gov/emfac/offroad/emissions-inventory/2c91f253def05eba6e32b4c543ffa9a49f235e92. Accessed April 2025.

n.d Off-Road Recognition Program Request for Information, https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/road-recognition-program-request-information. Accessed April 2025.

2002 California's Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1493 of 2002 (Pavley), https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley. Accessed April 2025.

2005 Air Quality and Land Use Handbook: A Community Health Perspective. California Air Resources Board. April.

2007 California Greenhouse Gas Inventory – Summary by Economic Sector. Last updated November 19, 2007.

2008 Climate Change Scoping Plan: A Framework for Change. http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December.

2016 Ambient Air Quality Standards. California Air Resources Board. October 1.

2017 The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 20. Accessed April 2025.

2020 Greenhouse Gas Inventory Data—2000 to 2018 (last updated October 15, 2020). https://ww2.arb.ca.gov/ghg-inventory-data.

2021a California Air Quality Data Statistics. California Air Resources Board Internet Site. http://www.arb.ca.gov/adam/welcome.html. Accessed March 16, 2021.

2021b Current California GHG Emission Inventory Data: 2000-2021 GHG Inventory (2023 Edition), https://ww2.arb.ca.gov/ghg-inventory-data. Accessed April 2025.

2022 2022 Scoping Plan for Achieving Carbon Neutrality, 2022, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf. Accessed April 2025.

2022 CARB Approves Amendments to Off-Road Regulations to Further Reduce Emissions, 2022, https://ww2.arb.ca.gov/news/carb-approves-amendments-road-regulation-further-reduce-emissions/printable/print. Accessed April 2025.

2024 Common Air Pollutants, https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed September 2024.

California Code of Regulations

2016 2016 California Building Code, California Code of Regulations, Title 24, Chapter 12 Interior Environment, Section 1207, Sound Transmission, http://www.bsc.ca.gov/codes.aspx.

2019 2019 California Building Code, California Code of Regulations, Title 24, Chapter 12 Interior Environment, Section 1206, Sound Transmission, http://www.bsc.ca.gov/codes.aspx.

California Department of Conservation (CDC)

2021 Important Farmland Categories. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx.

California Department of Fish and Wildlife (CDFW)

2021 State and Federally Listed Endangered, Threatened, and Rare Animals of California. California Natural Diversity Database (CNDDB). Natural Resources Agency. Department of Fish and Wildlife. August.

2025 San Jacinto WA Land Management Plan, https://wildlife.ca.gov/Lands/Planning/San-Jacinto-Valley-WA. Accessed February 12, 2025.

California Department of Transportation (Caltrans)

2013 Technical Noise Supplement. November.

2017a Traffic Census Program. 2017 Traffic Volumes on California State Highways. Accessed at https://dot.ca.gov/programs/traffic-operations/census.

2017b Standard Environmental Reference, Volume 1, Chapter 8 – Paleontology. https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-8-paleontology.

2018 Transit Noise and Vibration Assessment Manual

2020 Transportation and Construction Vibration Guidance Manual.

California Department of Water Resources (DWR)
2019 Perris Dam Remediation Project. October 2.

California Energy Commission (CEC)
n.d Consumption by Southern California Gas, http://ecdms.energy.ca.gov/gasbyutil.aspx. Accessed April 9, 2025.

n.d Gas Consumption by County, https://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed March 26, 2026.

2019 2019 California Energy Efficiency Action Plan. Final Staff Report. November 2019.

California Gas and Electric Utilities
2022 2022 California Gas Report https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf. Accessed April 9, 2025.

California Supreme Court
2019 *Sierra Club v. County of Fresno* (2019) 6 Cal.5th 502.

California Water Boards, Santa Ana – Region 8
2008 Santa Ana Regional Water Quality Control Board Basin Plan (Basin Plan). https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/.

Castillo, Edward D.
1978 The Impact of Euro-American Exploration and Settlement. In *California,* edited by Robert F. Heizer, pp. 99-127. Handbook of North American Indians, vol. 8, William G. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

Chesser, R. T., K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., D. F. Stotz, B. M. Winger, and K. Winker
2019 Check-list of North American Birds (online). American Ornithological Society. http://checklist.aou.org/taxa.

Cook, Sherburne F.
1976 *The Population of California Indians, 1769-1970*. Berkeley: University of California Press.

Council on Environmental Quality (CEQ)
2012 Federal Greenhouse Gas Accounting and Reporting Guidance, June 4. Accessed June 24, 2016. https://www.whitehouse.gov/sites/default/files/microsites/ceq/ghg_guidance_document_0.pdf.

Crother, B. I. (editor)
2017 Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. Eighth Edition. Society for the Study of Amphibians and Reptiles Herpetological Circular 43.

Department of State, Office of the Historian
1845 The Annexation of Texas, the Mexican-American War, and the Treaty of Guadalupe-Hidalgo, 1845-1848, https://history.state.gov/milestones/1830-1860/texas-annexation. Accessed on February 17, 2025.

Dyett & Bhatia
2020a MoVal 2040 Technical and Existing Conditions Report. August.

2020b 2040 General Plan Buildout Projections.

2020c Memorandum – Moreno Valley 2040 GHG Forecast – Methodology and Findings. To Chris Ormsby, Senior Planner, City of Moreno Valley. December 3, 2020.

2021 Climate Action Program.

Eastern Municipal Water District (EMWD)
2013 Eastern Municipal Water District Administrative Code Resolution 5111, Adopted May 15. https://www.emwd.org/sites/main/files/file-attachments/admincode.em_._6.19.19_full_pkt_rev_070219_0.pdf?1610553455.

2016 2015 Urban Water Management Plan – Final. June. https://www.emwd.org/sites/main/files/file-attachments/urbanwatermanagementplan_0.pdf?1537303453.

2020 Sustainable Groundwater Management Act. https://www.emwd.org/post/sustainable-groundwater-management-act.

Envirostor
2019 https://www.envirostor.dtsc.ca.gov/public/.

Environmental Health Perspectives
2011 Vehicle Motion Alarms, January 2011

Eriksen, Clyde, and Denton Belk
1999 *Fairy Shrimp of California's Puddles, Pools, and Playas.* Mad River Press, Eureka.

Federal Highway Administration (FHWA)
2006 FHWA Roadway Construction Noise Model User's Guide, Final Report. January.

2023 Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, https://www.fhwa.dot.gov/ENVIRonment/air_quality/air_toxics/policy_and_guidance/msat/fhwa_nepa_msat_memorandum_2023.pdf. Accessed January 2025.

2011 Highway Traffic Noise: Analysis and Abatement Guidance. FHWA-HEP-10-025. December.

Federal Transit Administration (FTA)
2018 Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018.

Fehr & Peers
2019 WRCOG SB 743 Implementation Pathway, https://www.fehrandpeers.com/wp-content/uploads/2019/12/WRCOG-SB743-Document-Package.pdf. Accessed March 21, 2025.
2021 Moreno Valley General Plan Circulation Element Traffic Modeling, Forecasting and Vehicle Miles Traveled Memorandum. March 30.

Forbes, Jack D.
1982 *Native Americans of California and Nevada.* Naturegraph Publishers, Happy Camp, California.

Governor's Office of Planning and Research (OPR)
2017 State of California 2017 General Plan Guidelines.

Harris Miller Miller & Hanson, Inc.
2006 Chicago Rail Efficiency and Transportation Efficiency (CREATE) Railroad Noise Model. Noise Model based on Federal Transit Administration General Transit Noise Assessment. Developed for CREATE Project. 2006.

Holland, R. F.
1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California Department of Fish and Game.

Hooper, Lucille
1920 The Cahuilla Indians. *American Archaeology and Ethnology*. University of California Press, Berkeley.

Hoover, Mildred Brooke, Douglas E. Kyle, and Ethel G. Rensch
2002 *Historic Spots in California.* Stanford University Press, Sanford.

Hurtado, Albert L.
1988 *Indian Survival on the California Frontier*. Yale University Press, New Haven.

International Council for Local Environmental Initiatives (ICLEI)
n.d U.S. Community Protocol, https://icleiusa.org/us-community-protocol/#:~:text=Download%20the%20U.S.%20Community%20Protocol,emissions%20associated%20with%20their%20communities.

Intergovernmental Panel on Climate Change (IPCC)
2007 Fourth Assessment Report (AR4), Climate Change 2007: Synthesis Report.

2014 Fifth Assessment Report (AR5), Climate Change 2014: Synthesis Report.

Kimley- Horn and Associates, Inc.
2025 Air Quality Impact Assessment

2025 Health Effects and Health Risk Assessment

2025 Vehicle Miles Traveled Assessment

2025 Noise and Vibration Assessment

Kowta, M.
1969 The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Its Scraper Planes. *University of California Publications in Anthropology* No. 6. Berkeley and Los Angeles.

Kroeber, A. L.
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78. Washington, D.C.

1970 *Handbook of the Indians of California.* California Book Company, Berkeley.

Lech, Steve
2004 American Local History Network's: Riverside County, California. http://www.usgennet.org/usa/ca/county/riverside/. Accessed on March 5, 2009.

March Air Reserve Base/Inland Port Airport
2014 March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan. http://www.rcaluc.org/Portals/13/17%20-%20Vol.%201%20March%20Air%20Reserve%20Base%20Final.pdf?ver=2016-08-15-145812-700.

McWilliams, Carey
1973 *Southern California: An Island on the Land.* Peregrine Smith Books, Salt Lake City, Utah.

Meighan, Clement W.
1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10:215-227.

Metrolink
n.d 91/Perris Valley, https://metrolinktrains.com/schedules/?type=line&lineName=91+Line, accessed January 2025.

Metrolink Southern California Regional Rail Authority
2023 Adopted Budget Fiscal Year 2023-2024, Adopted June 23, 2023, Exhibit 3.1a, https://metrolinktrains.com/globalassets/about/financial-reports/adopted-budget/fy23-24-adopted-budget-fy25-28-projections.pdf. Accessed April 2025.

Moratto, Michael. J.
1984 *California Archaeology*. Academic Press, San Diego.

Moreno Valley, City of
2006a City of Moreno Valley General Plan. July 11, 2006. http://www.moreno-valley.ca.us/city_hall/general_plan.shtml.

2006b City of Moreno Valley General Plan Final Environmental Impact Report. July. SCH #200091075. http://www.moval.org/city_hall/general-plan/06gpfinal/ieir/eir-tot.pdf.

2006c Moreno Valley 2006 General Plan Final Program EIR, https://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/5_6-geo-soils.pdf

2009 Emergency Operations Plan. March. http://www.moval.org/city_hall/departments/fire/pdfs/mv-eop-0309.pdf.

2012 City of Moreno Valley Energy Efficiency and Climate Action Strategy. October 2012. Accessed March 2025.

2017 Local Hazard Mitigation Plan. http://www.moval.org/city_hall/departments/fire/pdfs/haz-mit-plan.pdf.

2019 Stormwater Pollution Prevention Information http://www.morenovalley.ca.us/city_hall/departments/pub-works/NPDES.shtml.

2020a About Moreno Valley. https://moval.gov/resident_services/mv-history.html.. Accessed February 17, 2025.

2020b Moreno Valley Utility 2019 Power Content Label. Accessed at http://www.moval.org/mvu/pdfs/power-content2019.pdf. Version: October 2020.

2020c Capital Improvement Plan. http://www.moval.org/city_hall/departments/pub-works/pdf/Adopted-CIP19-20.pdf.

2020d Valley Transportation Engineering Division, Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment. https://www.moval.org/departments/public-works/transportation/TIA-Guidelines.pdf. Accessed March 18, 2025.

2021 Public Review Draft Housing Element 2021-2029, February 2021, https://www.hcd.ca.gov/housingelements/docs/moreno_valley_6th_draft021921.pdf. Accessed April 10, 2025.

2025 City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment. https://www.moval.org/departments/public-works/transportation/TIA-Guidelines.pdf. Accessed March 18, 2025.

Moreno Valley Electric Utility

2018 2018 Integrated Resource Plan, https://www.moreno-valley.ca.us/mvu/pubs/MVU-IRP-Report-072018.pdf, accessed April 2025.

Noise Testing Workplace Noise Consultants

2014 Warehouse and Forklift Noise Levels, November 2014

Office of Environmental Health Hazard Assessment (OEHHA)

2015 Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February.

Office of Land Use and Climate Innovation

n.d Technical Advisory on Evaluating Transportation Impacts in CEQA, http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed March 21, 2025.

Oxendine, Joan

1983 The Luiseno Village During the Late Prehistoric Era. PhD dissertation, University of California, Riverside.

Parker, Patricia L., and Thomas F. King
1998 Guidelines for Evaluating and Documenting Traditional Cultural Properties. *National Register Bulletin 38*, National Park Service.

Rawls, James J., and Walton Bean
1998 *California, An Interpretive History*. McGraw-Hill, Boston, Massachusetts.

Redlands Daily Facts
2008 The Rise and Fall of Frank Brown. https://www.redlandsdailyfacts.com/2008/08/09/the-rise-and-fall-of-frank-brown/. Accessed February 14, 2025.

Rincon Consultants, Inc.
2025 Moreno Valley Climate Action Plan.

Rogers, M. J.
1938 Archaeological and Geological Investigations of the Culture Levels in an Old Channel of San Dieguito Valley. *Carnegie Institution of Washington Yearbook* 37:344-45.

1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1(2):167-198. Albuquerque.

Riverside, County of
2019 Riverside County GIS.

2020 County of Riverside General Plan, Reche Canyon/Badlands Subarea. https://planning.rctlma.org/Portals/14/genplan/2020/ap/RCBAP_08042020.pdf.

Riverside County Airport Land Use Commission
2004 Riverside County Airport Land Use Compatibility Plan. Volume 1 Policy Document. Adopted by Riverside County Airport Land Use Commission October 14, 2004.

2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Adopted by Riverside County Airport Land Use Commission November 13, 2014.

Riverside County Habitat Conservation Agency (RCHCA)
1996 Habitat Conservation Plan for Stephens' Kangaroo Rat in Western Riverside County. March. https://www.rchca.us/DocumentCenter/View/549/SKR-Habitat-Conservation-Plan.

Riverside County Transportation Commission
2010 Perris Valley Line Commuter Rail.
2011 2011 Riverside County Congestion Management Program, December 14, 2011, https://www.rctc.org/wp-

content/uploads/media_items/congestionmanagementprogram.original.pdf. Accessed April 2, 2025.

Rogers, M. J.
1938 Archaeological and Geological Investigations of the Culture Levels in an Old Channel of San Dieguito Valley. Carnegie Institution of Washington Yearbook 37:344 45.

San Diego Natural History Museum
2002 Butterflies of San Diego County, prepared by Michael Klein. Revised September. https://www.sdnhm.org/science/entomology/projects/checklist-of-butterflies-of-san-diego-county/.

South Coast Air Quality Management District (SCAQMD)
1992 Federal Attainment Plan for Carbon Monoxide.

1993 SCAQMD CEQA Air Handbook. November.

2003 Final 2003 Air Quality Management Plan.

2008 Final Localized Significance Threshold Methodology. July.

2015 Multiple Air Toxics Exposure Study in the South Coast Air Basin Final Report. Accessed at http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iv. May 2015.

2017 MATES V Multiple Air Toxics Exposure Study. Available at http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.

2017 Final 2016 Air Quality Management Plan

2022 2022 Air Quality Management Plan

2019 SCAQMD Air Quality Significance Thresholds. Updated April.

2021 MATES V Final Report, page ES-16, 2021. http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf?sfvrsn=6. Accessed November 2024.

2022 Air Quality Management Plan, December 2022, https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16, accessed September 2024.

Southern California Association of Governments (SCAG)
2020 Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Adopted on September 3, 2020.

2021 SCAG 6th Cycle Final RHNA Allocation Plan (approved by HCD on 3/22/21).

2024 Connect SoCal, https://scag.ca.gov/sites/default/files/2024-05/23-2987-connect-socal-2024-final-complete-040424.pdf. Accessed April 2025.

2024 Connect SoCal 2024-2050 RTP/SCS Demographics and Growth Forecast, https://www.scag.ca.gov/sites/default/files/2024-05/23-2987-tr-demographics-growth-forecast-final-040424.pdf. Accessed April 2025.

Southern California Edison
2020 Southern California Edison 2019 Power Content Label. Version: October 2020. https://www.sce.com/sites/default/files/inline-files/SCE_2019PowerContentLabel.pdf.

State Water Resources Control Board (SWRCB)
2021 GeoTracker. https://geotracker.waterboards.ca.gov/. Accessed March 25.

Strong, William D.
1929 Aboriginal Society in Southern California. *UC (Berkley) Publications in American Archaeology and Ethnology* 26(1):1-358. University of California, Berkeley.

Texas State Historical Association
2001 Mexican War. Electronic document, produced jointly with the University of Texas. http://www.tsha.utexas.edu/handbook/online/articles/mm/qdm2.html. Accessed on December 2, 2005.

The Natelson Company, Inc.
2001 Employment Density Study Summary Report. October 31, 2001.

True, D. L.
1958 An Early Complex in San Diego County, California. *American Antiquity* 23(3):255-263.

True, D. L., C. Meighan, and H. Crew
1974 Archaeological Investigations at Molpa, San Diego County, California. *University of California Publications in Anthropology* No. 11.

True, D. L., and G. Waugh
1981 Archaeological Investigations in Northern San Diego County, California: Frey Creek. *Journal of California and Great Basin Anthropology* 3(1):84-115.

United States Census

2019 American Community Survey 5-Year Estimates (2015-2019) https://www.census.gov/programs-surveys/acs/news/data-releases/2019/release.html.

2022 OnTheMap Application., Longitudinal-Employer Household Dynamics Program. http://onthemap.ces.census.gov/., Moreno Valley, http://onthemap.ces.census.gov/. Accessed January 2025.

2025 American Community Survey, 2023 ACS 5-Year Estimate, https://data.census.gov/table/ACSCP5Y2023.CP05?g=160XX00US0649270&d=ACS%205-Year%20Estimates%20Comparison%20Profiles. Accessed February 14, 2025.

United States Environmental Protection Agency (USEPA)

n.d International Actions-The Montreal Protocol on Substances that Deplete the Ozone Layer, https://www.epa.gov/ozone-layer-protection/international-actions-montreal-protocol-substances-deplete-ozone-layer.

2016 USEPA and DOT Finalize Greenhouse Ga sand Fuel Efficiency Standards for Heavy Duty Trucks, https://www.epa.gov/archive/epa/newsreleases/epa-and-dot-finalize-greenhouse-gas-and-fuel-efficiency-standards-heavy-duty-trucks-0.html?. Accessed April 2025.

2019 Final Rule: One National Program on Federal Preemption of State Fuel Economy Standards, 2019, https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-one-national-program-federal-preemption-state, accessed April 2025.

2020 U.S. DOT and EPA Put Safety and American Families First with Final Rule on Fuel Economy Standards, 2020, https://www.epa.gov/newsreleases/us-dot-and-epa-put-safety-and-american-families-first-final-rule-fuel-economy, Accessed April 2025

2021a Energy Star. Accessed March 18, 2021. Available at http://www.energystar.gov.

2021b U.S. EPA State and Local Climate and Energy Program. Accessed March 18, 2021. http://www.epa.gov/statelocalclimate/index.html.

2025 Understanding Global Warming Potentials, 2025, https://www.epa.gov/ghgemissions/understanding-global-warming-potentials. Accessed April 2025.

United States Energy Information Administration

2023 State Profile and Energy Estimates – California https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_es.html&sid=CA. Accessed April 9, 2025.

United States Fish and Wildlife Service (USWFS)
2008 Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*). October 17.

2010 Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for *Navarretia fossalis* (Spreading Navarretia). October 7.

2013 Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for *Allium munzii* (Munz's Onion) and *Atriplex coronata* var. *notatior* (San Jacinto Valley Crownscale). April 16.

2019 Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO).

United States Geological Survey (USGS)
2021 Emergency Assessment of Post-Fire Debris-Flow Hazards. Accessed 3.29.21 at Emergency Assessment of Post-Fire Debris-Flow Hazards (usgs.gov).

Western Regional Climate Center
2020 Western U.S. Climate Historical Summaries. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5326 and https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6816.

Western Riverside Council of Governments (WRCOG)
2012 Economic Development & Sustainability Framework. December 2012.

2014 Subregional Climate Action Plan. Final Report. September 2014. https://wrcog.us/172/Planning.

Western Riverside County Regional Conservation Authority (WRCRCA)
2003 Final Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP).

Willey, H. I.
1886 Annual Report of the Surveyor-General of the State Of California, from August 1, 1884, to August 1, 1886. Sacramento, California.