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, allhazards 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

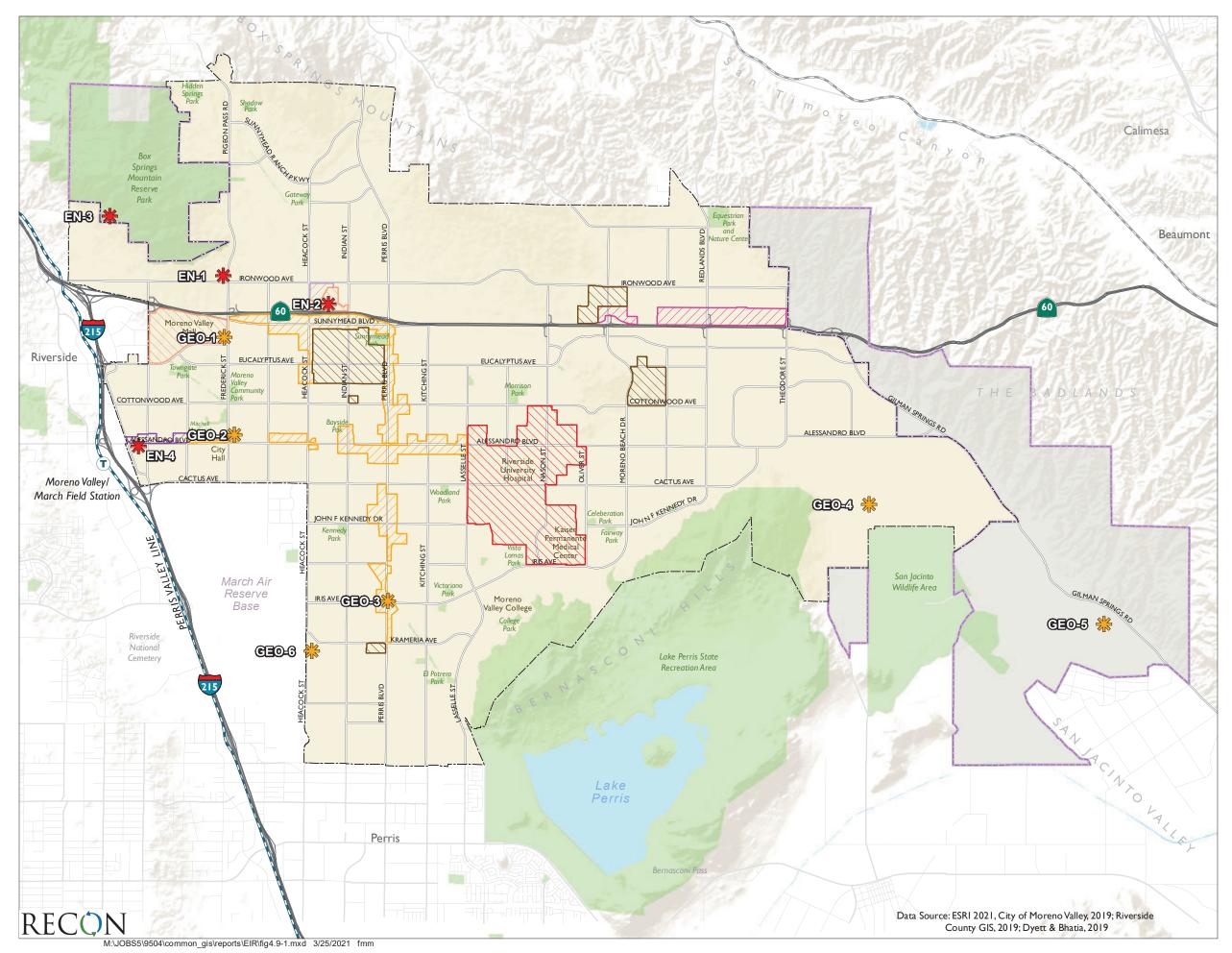
The Hazardous Waste and Substances Sites (Cortese) List is a planning document that provides information about the location of hazardous materials release sites in the state. Government Code Section 65962.5 requires the California Environmental Protection Agency

(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



FIGURE 4.9-1 Hazardous Materials Sites

Table 4.9-1 Active Envirostor and Geotracker Hazardous Materials Sites		
Sites	Description	Location
Envirostor		
EN-1	Site Type: Voluntary Cleanup	11875 Pigeon Pass Road
Best Cleaners	Status: Active	Moreno Valley, CA 92557
EN-2	Site Type: Voluntary Cleanup	24318 Hemlock Avenue
The Festival in Moreno	Status: Inactive, Action Required	Moreno Valley, CA 92557
Valley		
EN-3	Status: Inactive - Needs Evaluation	No Address Given
March Air Reserve Base		
Rifle Range		
EN-4	Site Type: Voluntary Cleanup	14044 Old 215 Frontage Road,
Alessandro Properties	Status: Active	21839 Alessandro Boulevard, and
		21921 Alessandro Boulevard
		Moreno Valley, CA 92553
Geotracker Sites		
GEO-1	Cleanup Status: Open – Site	12625 Frederick Street
Towngate Cleaners	Assessment	Moreno Valley, CA 92553
	Loc Case #: 60001956	
GEO-2	Cleanup Status: Open - Remediation	23080 Alessandro Blvd. Unit 220
M&M Dry Cleaners	RB Case #: 2080099	Moreno Valley, CA 92553
GEO-3	Cleanup Status: Open - Verification	15980 Perris Boulevard
Shell Perris Boulevard	Monitoring	Moreno Valley, CA 92551
	Loc Case #: 200420313	
GEO-4	Cleanup Status: Open – Operating	14601 Virginia
San Diego Gas & Electric	Regional Board	Moreno Valley, CA 92555
	Case #: 8 332020001	
GEO-5	Case #: 8 332875001	34005 Gilman Springs Drive
Recycled Wood Products		Moreno Valley, CA 92583
(RWP) Moreno Valley		
GEO-6	Cleanup Status: Open - Remediation	Heacock Street
Off-Base Groundwater	RB Case #: 166-72 23	Riverside CA, 92518
Plume	Loc Case #: 400090 23	

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.

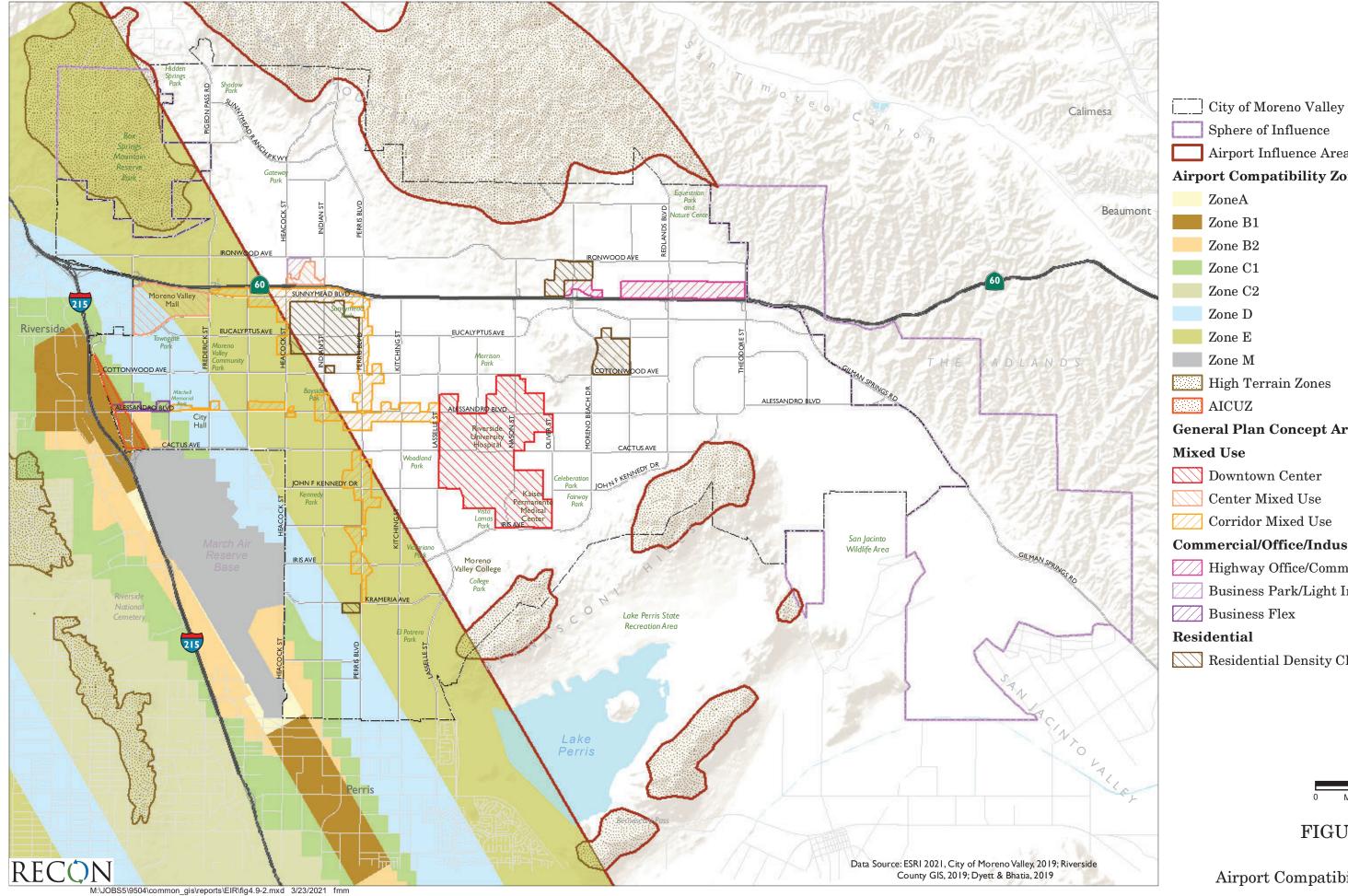
4.9.1.5 Transportation of Hazardous Materials

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.



Sphere of Influence Airport Influence Area Boundary **Airport Compatibility Zones** ZoneA Zone B1 Zone B2 Zone C1 Zone C2 Zone D Zone E Zone M High Terrain Zones AICUZ **General Plan Concept Areas** Downtown Center Center Mixed Use Corridor Mixed Use Commercial/Office/Industrial Highway Office/Commercial Business Park/Light Industrial Business Flex Residential Residential Density Changes Miles 0



FIGURE 4.9-2

Airport Compatibility Zones

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 air- space obstruction Concern is tall single objects (e.g., antennas)

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 gualify 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 onsite (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 singlefamily 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.