

4.18 Wildfire

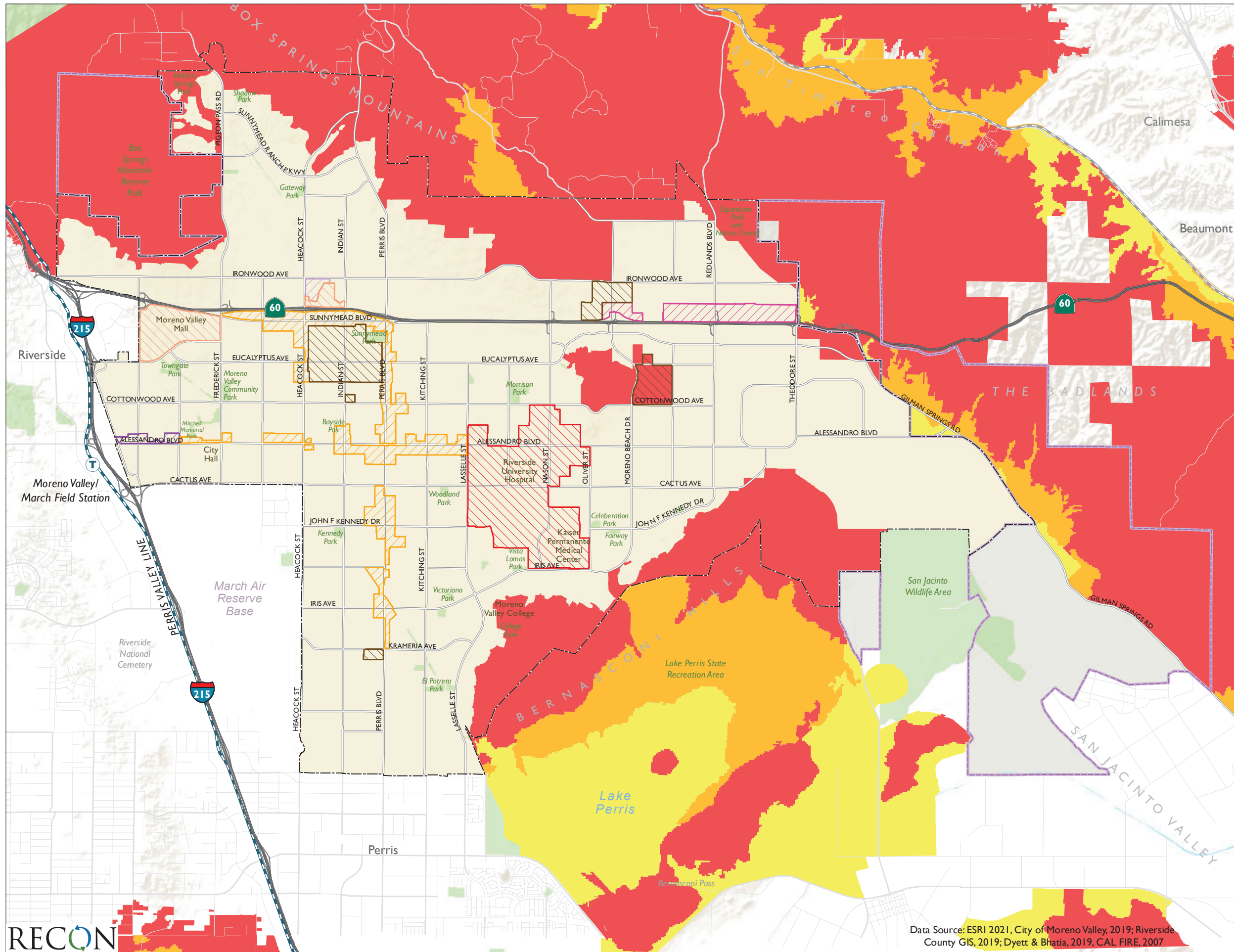
This section analyzes potentially significant impacts related to wildfire that could result from implementation of the project, which consists of the 2021 General Plan Update (GPU), Housing Element Update, and Climate Action Plan (CAP). The analysis area covers the entire city of Moreno Valley (city) 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



FIGURE 4.18-1
California Fire Hazard
Severity Zone

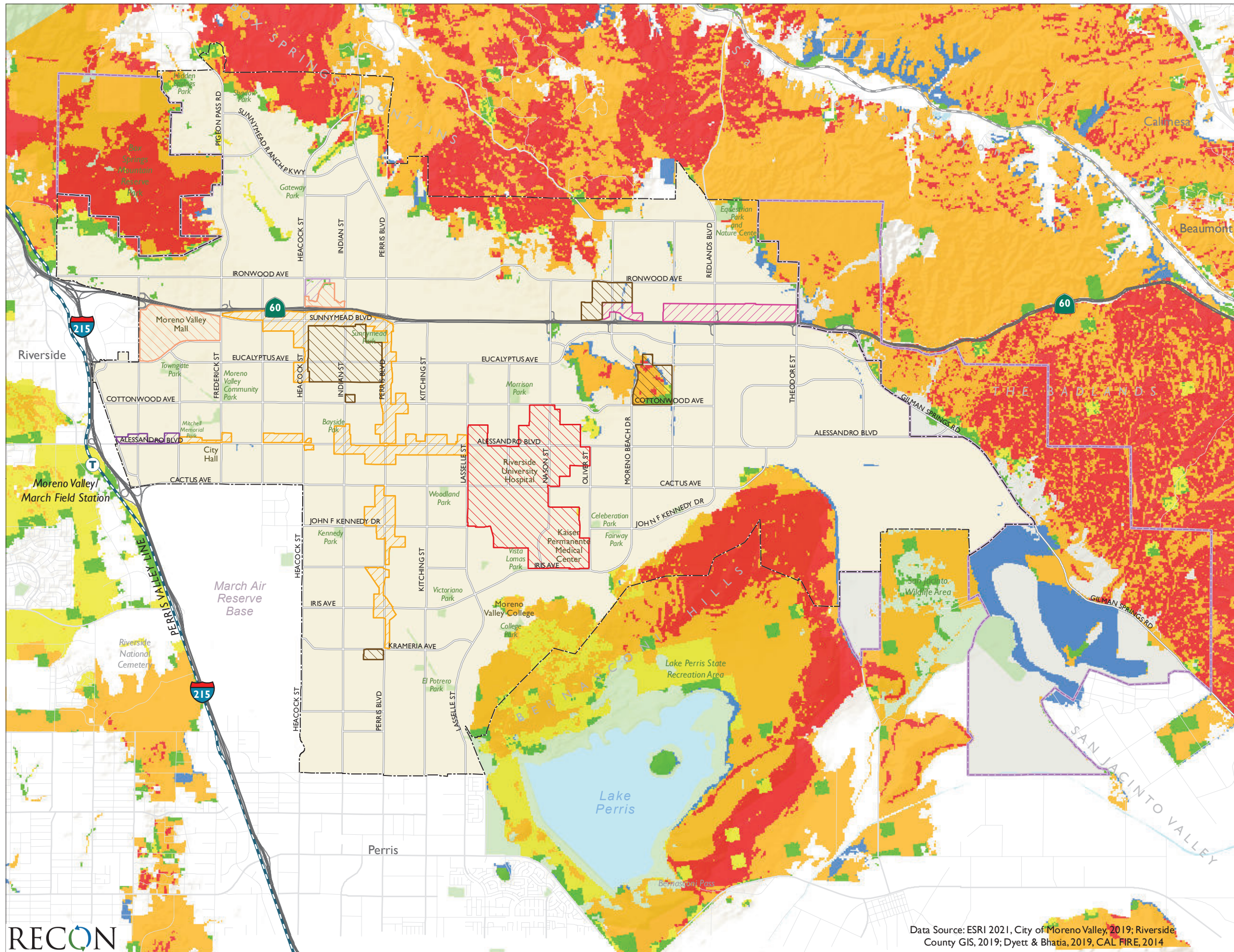
Row Labels	Acres	Percentage
Very High	12,283.37	28.62
High	614.85	1.43
Moderate	195.73	0.46
No Rating	29,823.05	69.49
TOTAL	42,917.00	100.00

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.

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.



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 - Business Flex
- Residential**
 - Residential Density Changes
- FRAP Fire Threat Areas**
 - Extreme
 - Very High
 - High
 - Moderate
 - Low



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.