Section 3.19
Wildfire

3.19.1 Introduction

This section addresses potential wildfire impacts that may result from implementation of the *2020 LA River Master Plan*. The following discussion addresses existing wildfire hazard conditions of the program site and surroundings, considers applicable goals and policies, identifies and analyzes environmental impacts, and includes measures to reduce or avoid significant impacts anticipated from project implementation, as applicable.

The analysis in this section includes impact determinations under CEQA for the *2020 LA River Master Plan* that are applicable to all 18 jurisdictions in the study area, including the County and non-County jurisdictions (17 cities). Except for significant and unavoidable impacts, all identified significant environmental effects of the proposed *2020 LA River Master Plan* can be avoided or reduced to a less-than-significant level if the mitigation measures identified in this PEIR are implemented. These mitigation measures will be implemented for subsequent projects that are carried out by the County. Because some later activities under the *2020 LA River Master Plan* would not be carried out by the County, the County cannot enforce or guarantee that the mitigation measures would be incorporated. Therefore, where this PEIR concludes a less-than-significant impact for later activities carried out by the County, the impact would be significant and unavoidable when these activities are not carried out by the County.

3.19.2 Setting

3.19.2.1 Geographic

Regional Setting

Los Angeles County is subject to both wildland and urban fires due to its climate, topography, and native vegetation The climate in the County is characterized as Mediterranean dry-summer featuring cool, wet winters and warm, dry summers. High moisture levels during the winter rainy season significantly increase the growth of plants. However, the vegetation is dried during the long, hot summers, decreasing plant moisture content and increasing the ratio of dead fuel to living fuel. As a result, fire susceptibility increases dramatically, particularly in late summer and early autumn. In addition, the presence of chaparral, a drought-resistant variety of vegetation that is dependent on occasional wildfires, is expected in Mediterranean dry-summer climates (Stephenson and Calcarone, 1999).

Fire Hazard Designations

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the State through its Fire and Resource Assessment Program. These maps designate areas of the State into different Fire Hazard Severity Zones (FHSZs) based on various

factors, including vegetation, topography, weather, crown fire production, and ember production and movement (CAL FIRE 2007). CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire State and includes classifications for Federal Responsibility Areas (FRAs), State Responsibility Areas (SRAs), and Local Responsibility Areas (LRAs). For a more detailed description of how FHSZs are designated, see below under Section 3.19.2.2, *Regulatory* (Fire Hazard Severity Zones: PRC Sections 4201–4204 and Very High Fire Hazard Severity Zones – Government Code Sections 51175–51189).

A large portion of the County, even in highly developed areas, is designated as a Very High FHSZ (Los Angeles County 2018). As shown on the CAL FIRE FHSZ maps, in Los Angeles County, there are:

- 386.06 square miles (8.11 percent) in the Very High LRA FHSZ,
- 625.01 square miles (13.13 percent) in the Very High SRA FHSZ, and
- 132.77 square miles (2.79 percent) in the High SRA FHSZ.

The LA River intersects and is adjacent to several Very High FHSZs, as designated by CAL FIRE. Approximately 12 miles of the LA River corridor is within or adjacent to Very High FHSZ along the Santa Monica Mountains and the Glendale Narrows areas. Historically, fires have occurred throughout Griffith Park, with the most recent wildfire coming close to the river corridor in 2007. While large portions of the LA River are concrete-lined channels, areas with soft bottom channels and vegetation pose potential wildfire risks.

Wildland-Urban Interface

The Wildland-Urban Interface (WUI) is an area where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (USDA and USDOI 2001) and occur in areas designated by CAL FIRE as a FHSZ. A WUI is defined as a buffer around areas of residential density greater than 0.05 dwelling unit per acre and is divided into a Defense Zone (the area up to 0.25 mile from the developed area) and a Threat Zones (from 0.25 to 1.5 miles from developed areas) (CAL FIRE 2018a).

The WUI creates an environment in which fire can move readily between structural and vegetation fuels. Once homes are built within (or bordering) natural habitat settings, fighting wildland fires becomes more complex because the goal of extinguishing the wildland fire is often superseded by protecting human life and private property.

The WUI is composed of communities that border wildlands or are intermixed with wildlands and where the minimum density exceeds one structure per 40 acres. WUI communities are created when the following conditions occur: (1) structures are built at densities greater than one unit per 40 acres, (2) the percentage of native vegetation is less than 50 percent, (3) the area is more than 75 percent vegetated, and (4) the community is within 1.5 miles of a wildland area more than 1,325 acres. The 1.5-mile buffer distance was adopted according to the 2001 California Fire Alliance definition of vicinity, which is roughly the distance that burning material can be transported from wildland fire to the roof of a structure (UW 2008).

Recent Wildfires

Wildfires are a common occurrence in Los Angeles County. Some of the County's most destructive fires have occurred since 2000, including:

- The Grand Prix Fire started on October 21, 2003 and burned a total of 50,618 acres between Claremont and Lytle Creek. The fire destroyed 136 homes and was ruled "accidental but human-initiated."
- The Simi Fire started on October 25, 2003 and burned a total of 107,570 acres between Simi Hills and southeastern Simi Valley, in eastern Ventura County and western Los Angeles County, California. It destroyed 37 homes and 278 outbuildings. The cause of the fire remains unknown.
- The Day Fire started on October 30, 2006 and burned a total of 161,816 acres. The fire primarily burned the Los Padres National Forest. The cause of the fire was human-ignited debris.
- The Ranch Fire started on October 20, 2007 and burned a total of 58,410 acres near Townsend Peak in the Angeles National Forest. The cause of the fire was equipment.
- The Station Fire started on September 22, 2009 and burned a total of 160,883 acres in the Angeles National Forest. The Station Fire is the largest recorded fire in Los Angeles County. It destroyed 89 residences and another 120 buildings of significance. Two firefighters were killed. The cause of the fire was arson.
- The Woolsey Fire started November 8, 2018 and burned a total of 96,949 acres in Los Angeles and Ventura Counties, including Thousand Oaks, Agoura Hills, Calabasas, the Santa Monica Mountains, Malibu, and West Hills. A total of 1,643 structures were destroyed and 3 people were killed.

Project Study Area Setting

As seen in Table 3.19-1 and on Figure 3.19-1, no wildfire hazards as designated by CAL FIRE are present in Frames 1 through 4 or Frame 9. Therefore, the discussion below focuses on Frames 5 through 8. Table 3.19-1 shows that the acreage of Very High FHSZs designated land is concentrated in Frames 6 and 7, with less acreage in Frame 5 and Frame 8.

Table 3.19-1. Very High FHSZs Acreage in Each Frame

Frame	Very High FHSZ Designated Land (acres)
Frame 1	0
Frame 2	0
Frame 3	0
Frame 4	0
Frame 5	124
Frame 6	5,580
Frame 7	3,058
Frame 8	1,883
Frame 9	0

Source: CAL FIRE 2007

Frame 5

As seen on Figure 3.19-2, approximately 124 acres of Frame 5 is designated as a Very High FHSZ, in its northernmost portion adjacent to Frame 6 (Figure 3.19-2). This includes the northeastern portion in the residential Montecito Heights Neighborhood and the northernmost portion of Frame

5, which encompasses the LA River, although the river is a concrete channel in this location (Mile 24). Primarily industrial and commercial land uses lie directly adjacent to the FHSZ to the east.

Frame 6

As seen on Figure 3.19-3, almost the entirety of Frame 6 west of the LA River is in a Very High FHSZ (Figure 3.19-3). The FHSZ encompasses 5,580 acres including the eastern portions of the Santa Monica Mountains, encompassing areas such as Elysian Reservoir and Park, Dodger Stadium, Griffith Park, and the Los Angeles Zoo. Aside from government-owned areas, land uses in the FHSZ are primarily residential. The FHSZ briefly includes the LA River at approximately Mile 29. Portions of Frame 6 to the east of the LA River are also in Very High FHSZs. These areas include the Cypress Park neighborhood, Glassell Park neighborhood, and Forest Lawn Cemetery in the south, and Los Angeles Equestrian Center in the north.

Frame 7

As seen on Figure 3.19-4, approximately 3,058 acres of Frame 7 are designated Very High FHSZ along the northern portion of the Santa Monica Mountains. Most of the Very High FHSZ is south of the LA River (Figure 3.19-4). These areas include Griffith Park, Mount Sinai Memorial Parks and Mortuaries, Universal Studios, and various open space areas with hiking trails. Many residential areas in the Studio City and Sherman Oaks neighborhoods are in the FHSZ. A Very High FHSZ is also in Frame 7 at approximately Mile 34. This FHSZ is in the southernmost part of Burbank, south of the Ventura Freeway, adjacent to Griffith Park (City of Los Angeles). This area includes studio buildings as well as a residential area.

Frame 8

As seen on Figure 3.19-5, approximately 1,883 acres of Frame 8 are designated Very High FHSZ. This frame has a high residential context. Similar to Frame 7, most of the Very High FHSZ in this frame is south of the LA River (Figure 3.19-5).

3.19.2.2 Regulatory

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of wildfire in this PEIR.

Federal

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code (IBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

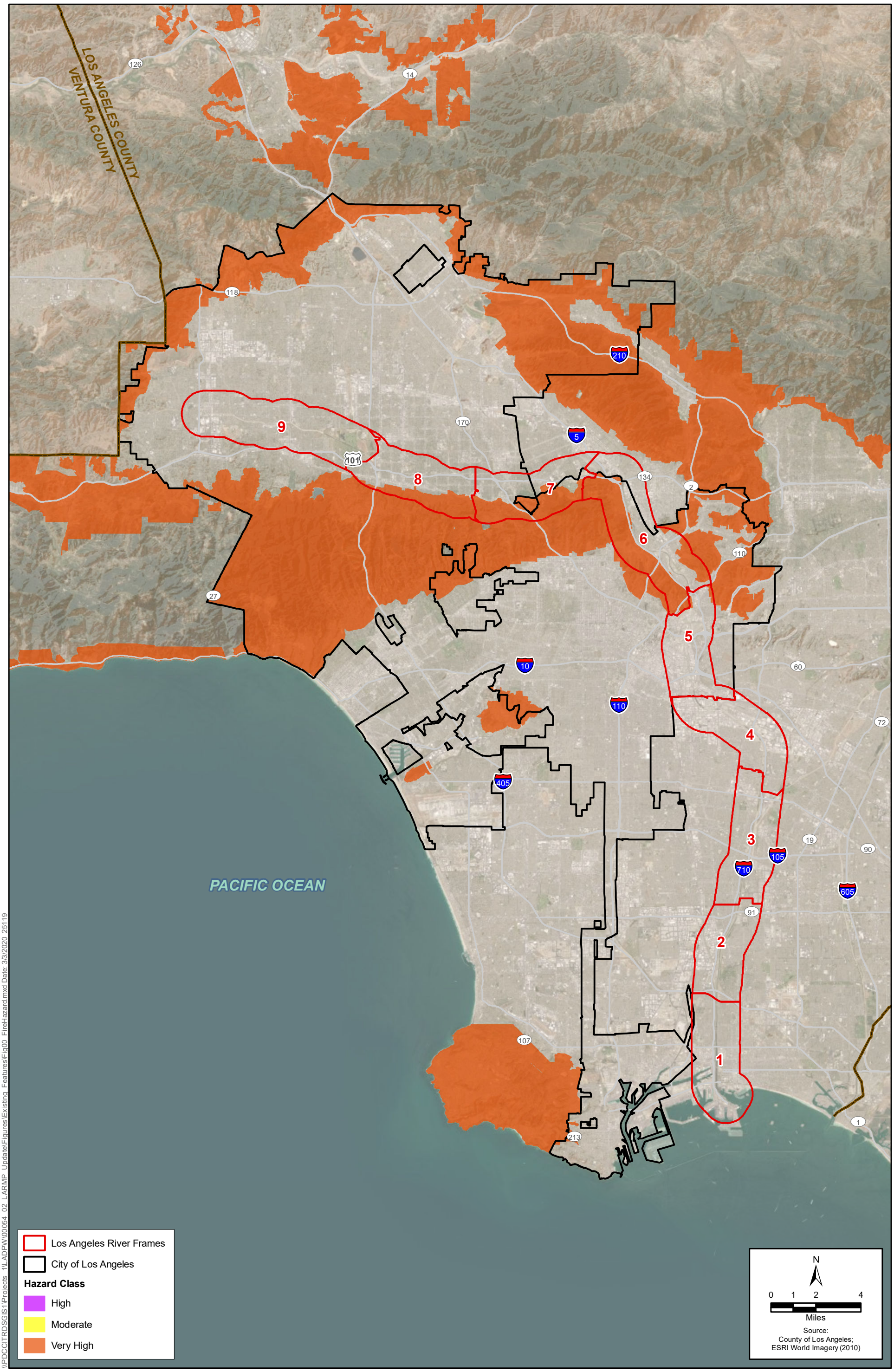
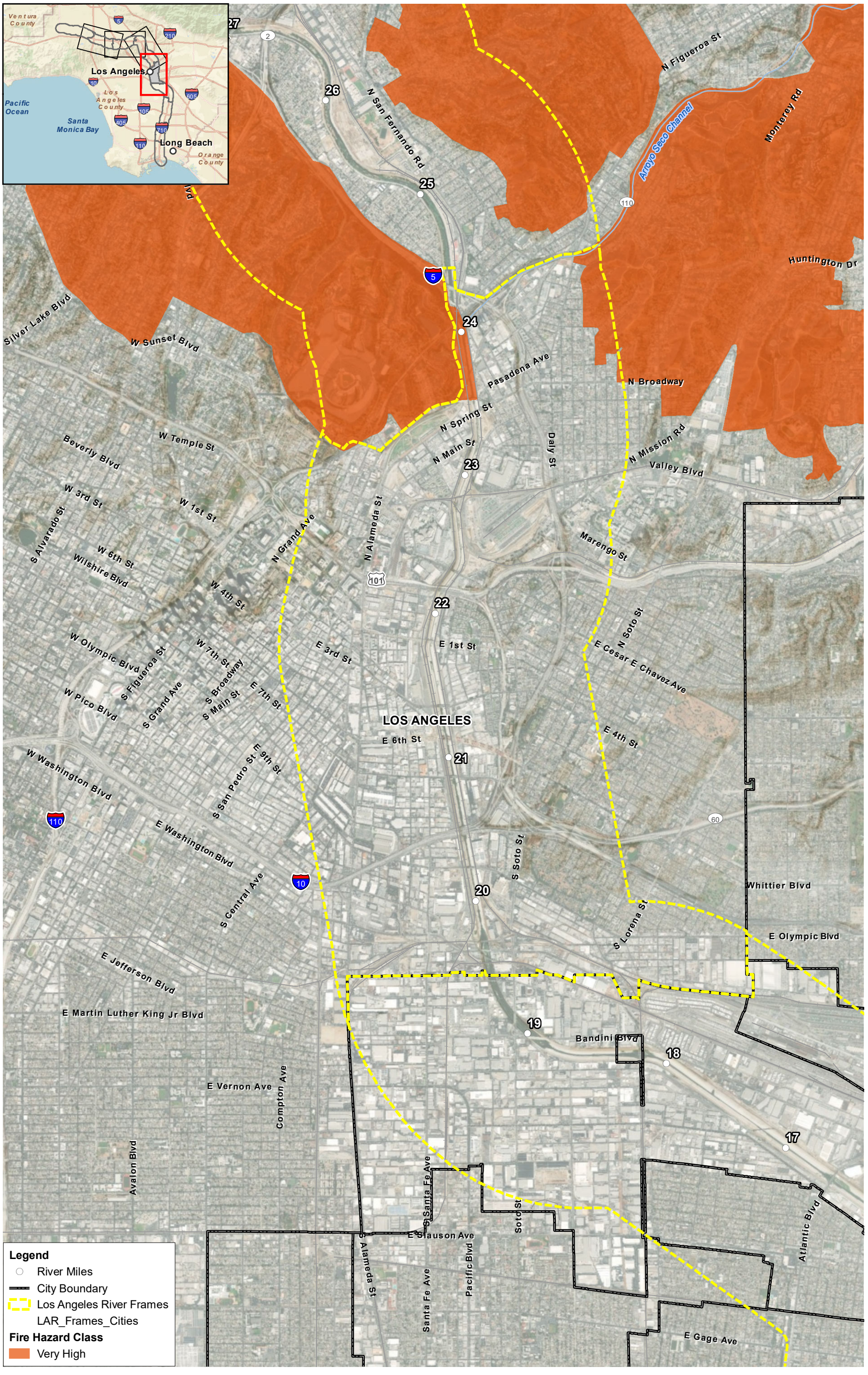
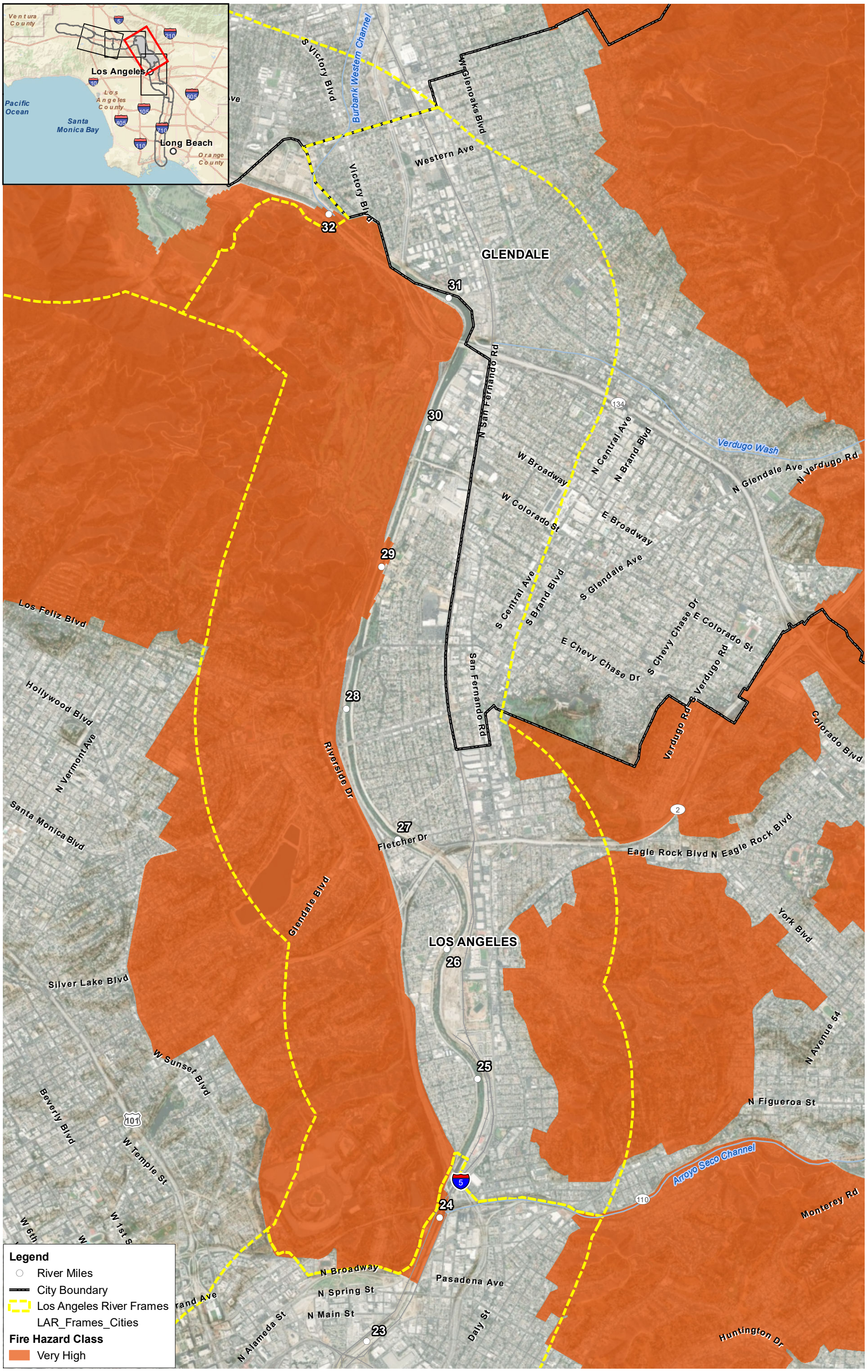


Figure 3.19-1
Fire Hazard Map
Los Angeles River Master Plan Update Program EIR Study Area



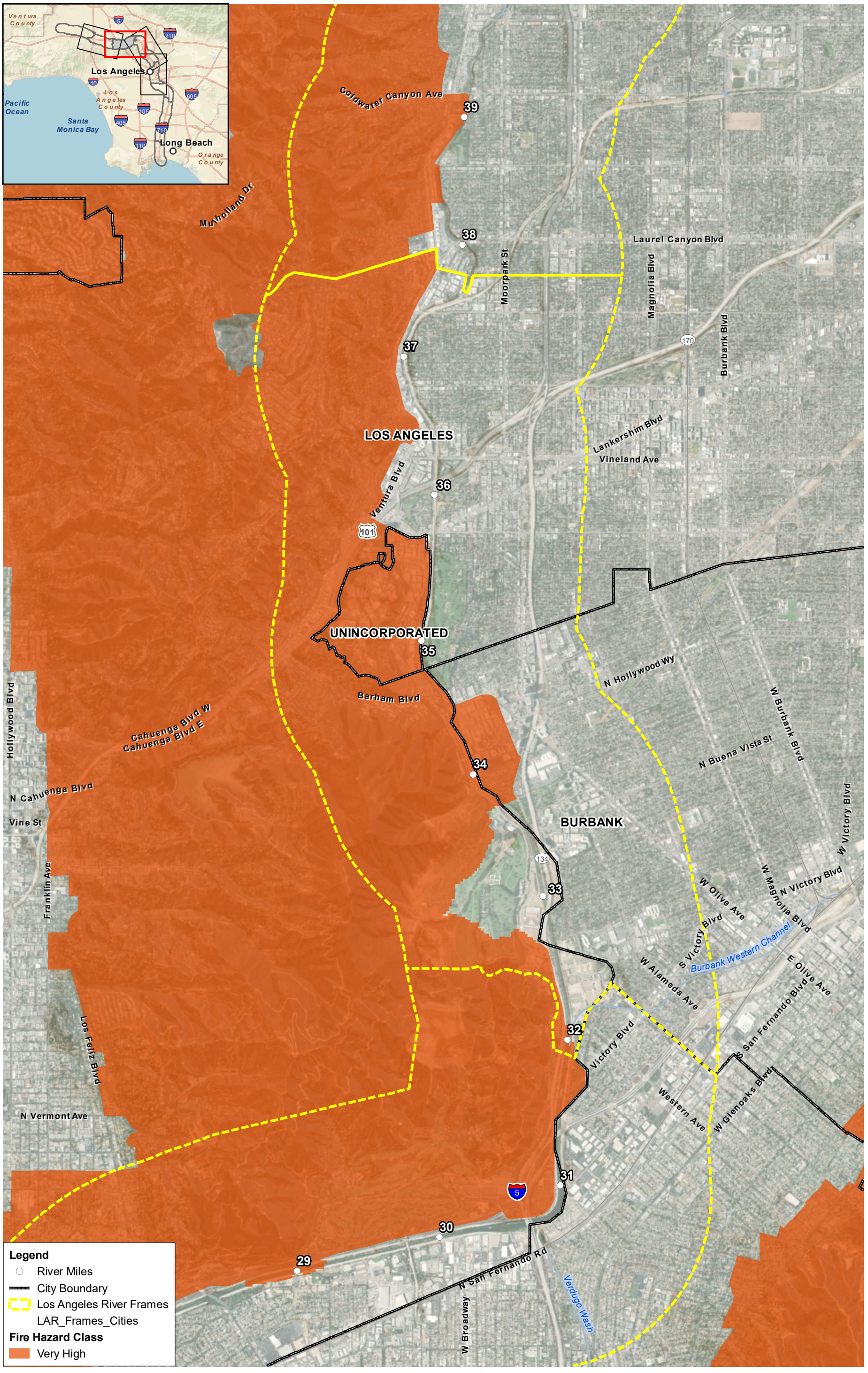
Source: CALFIRE; County of Los Angeles; ESRI

Figure 3.19-2
Frame 5
Fire Hazard Map
Los Angeles River Master Plan Update Program EIR Study Area



Source: CALFIRE; County of Los Angeles; ESRI

Figure 3.19-3
Frame 6
Fire Hazard Map
Los Angeles River Master Plan Update Program EIR Study Area



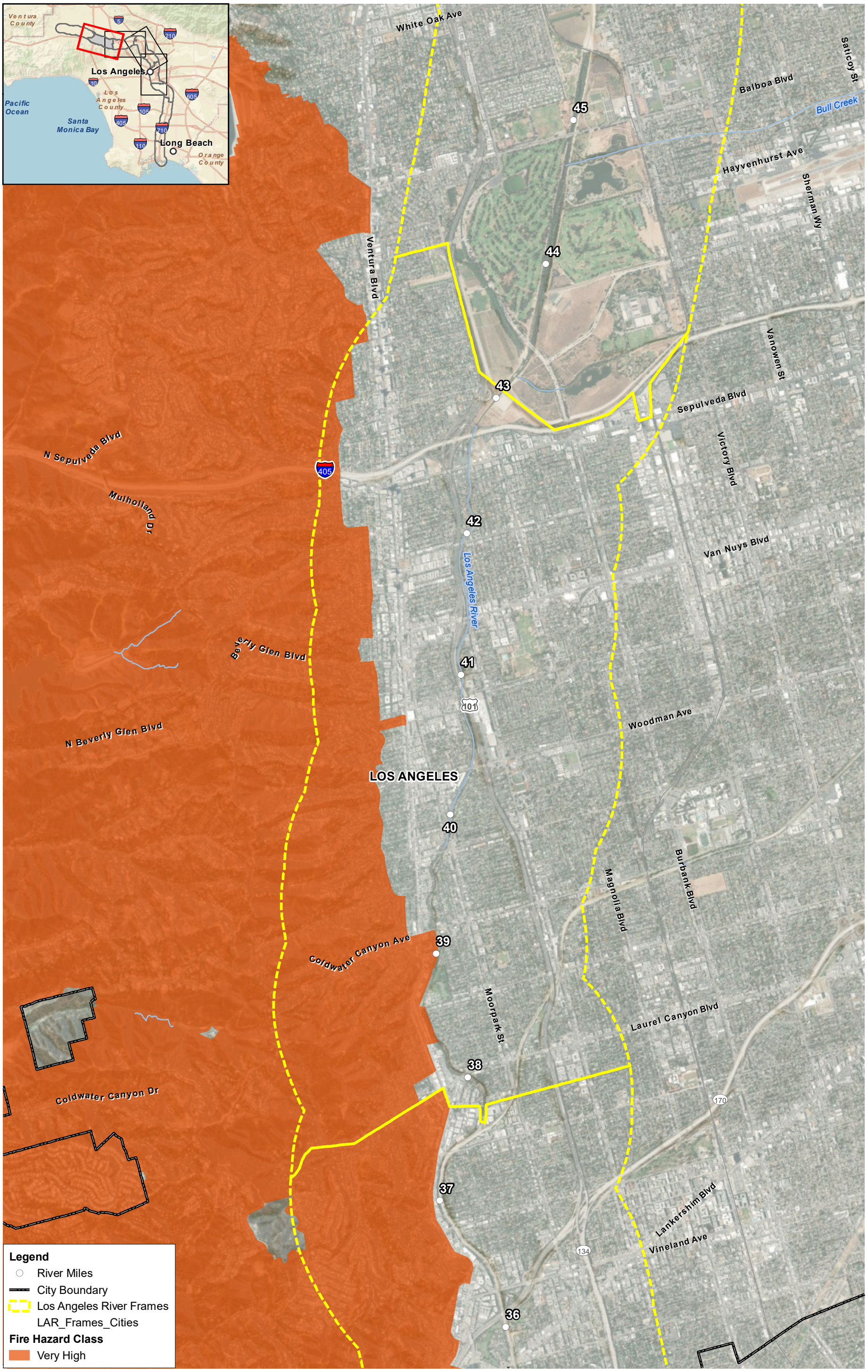
0 1,625 3,250 Feet

1:39,000

N

Source: CALFIRE; County of Los Angeles; ESRI

Figure 3.19-4
Frame 7
Fire Hazard Map
Los Angeles River Master Plan Update Program EIR Study Area



0 1,625 3,250 Feet

1:39,000

N

Source: CALFIRE; County of Los Angeles; ESRI

Figure 3.19-5
Frame 8
Fire Hazard Map
Los Angeles River Master Plan Update Program EIR Study Area

International Wildland–Urban Interface Code

The International Wildland–Urban Interface Code is published by the IFC and is a model code addressing wildfire issues.

Federal Wildland Fire Management Policy

The 1995 Federal Wildland Fire Management Report produced the first single comprehensive federal fire policy for the Departments of the Interior and Agriculture. That review was prompted not only by the 1994 fire season, with its 34 fatalities, but also by growing recognition of fire problems caused by fuel accumulation. The resulting 1995 Federal Fire Policy recognized, for the first time, the essential role of fire in maintaining natural systems. In the aftermath of the escape of the Cerro Grande Prescribed Fire in May of 2000, the Secretaries of the Interior and Agriculture requested a review of the 1995 Federal Fire Policy and its implementation. The subsequent 2001 Federal Fire Policy (U.S. Department of the Interior et al. 2001) and its implementation are founded on the following guiding principles:

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, State, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.
- State

California Emergency Services Act

The California Emergency Services Act was adopted to establish the State's roles and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or resources of the State. This act is intended to protect health and safety by preserving the lives and property of the people of the State.

California Natural Disaster Assistance Act

The California Natural Disaster Assistance Act provides financial aid to local agencies to assist in the permanent restoration of public real property, other than facilities used solely for recreational purposes, when such real property has been damaged or destroyed by a natural disaster. The California Natural Disaster Assistance Act is activated after a local declaration of emergency and the California Emergency Management Agency gives concurrence with the local declaration, or after the governor issues a proclamation of a State emergency. Once the act is activated, the local government

is eligible for certain types of assistance, depending on the specific declaration or proclamation issued.

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values, providing social, economic, and environmental benefits to rural and urban citizens. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year (CAL FIRE 2016).

The Office of the State Fire Marshal supports CAL FIRE's mission by focusing on fire prevention, providing support through a wide variety of fire-safety responsibilities, including:

- Regulating buildings in which people live, congregate, or are confined;
- Controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire;
- Providing statewide direction for fire prevention in wildland areas;
- Regulating hazardous liquid pipelines;
- Reviewing regulations and building standards; and
- Providing training and education in fire protection methods and responsibilities.

2018 Strategic Fire Plan for California

2018 Strategic Fire Plan for California (CAL FIRE 2018b) is a cooperative effort between CAL FIRE and the Board of Forestry and Fire Protection (the Board). The Board has adopted fire plans since the 1930s and periodically updates them to reflect current and anticipated needs. Over time, as the environmental, social, and economic landscape of California's wildlands has changed, the Board has evolved the Strategic Fire Plan to better respond to these changes and to provide the CAL FIRE with appropriate guidance "…for adequate statewide fire protection of state responsibility areas" (Public Resources Code [PRC] 4130). In 2018, the Board adopted a strategic fire plan to update and address fire concerns in California.

Reflecting a society that must be more aware of and responsive to the benefits and threats of wildland fire, the 2018 Strategic Fire Plan calls for a more fire-resistant natural environment, with buildings and infrastructure that are also more fire resistant, all achieved through local, State, federal, tribal, and private partnerships. The goals that are critical to achieving the 2018 Strategic Fire Plan's vision revolve around fire prevention, natural resource management, and fire suppression efforts, as broadly construed. Major components are:

- Improve the availability and use of consistent, shared information on hazard and risk assessment;
- Promote the role of local planning processes, including general plans, new development, and existing developments, and recognize individual landowner/homeowner responsibilities;
- Foster a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPP);

- Increase awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management;
- Integrate implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers;
- Determine and seek the needed level of resources for fire prevention, natural resource management, fire suppression, and related services; and
- Implement needed assessments and actions for post-fire protection and recovery. (CAL FIRE 2018b.)

Fire Hazard Severity Zones: PRC Sections 4201–4204

In 1965, PRC Sections 4201–4204 and Government Code Sections 51175–51189 directed CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as FHSZs, define the application of various mitigation strategies to reduce risk associated with wildland fires (State of California 1965).

Very High Fire Hazard Severity Zones – Government Code Sections 51175–51189

In 1992, Government Code Sections 51175–51189 established the classification for Very High FHSZs based on fuel loading, terrain, weather, and other relevant factors identified by CAL FIRE as major causes of wildfire spread and based on the severity of fire hazard that is expected to prevail in those areas. The code established the requirements for those that maintain an occupied dwelling within a designated Very High FHSZ. The Very High FHSZs require the application of mitigation measures to reduce risk associated with uncontrolled wildfires and require that the measures be taken. Local agencies designate the locations of Very High FHSZs within their jurisdictions as required by CAL FIRE.

Senate Bill 1241

In 2012, Senate Bill (SB) 1241 added Section 66474.02 to Title 7, Division 2, of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits subdivision of parcels that are designated as Very High FHSZs or located in an SRA, unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. In brief, the three findings require that: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in PRC Section 4290–91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

Senate Bill 901

SB 901 (Dodd 2018) requires every electric utility to prepare a wildfire mitigation plan (WMP). SB 901 amended Public Utilities Code Section 8387, which generally requires every publicly owned utility to construct, maintain, and operate its electrical facilities to minimize the risk of wildfire posed by those facilities. As amended by SB 901, Section 8387 more specifically requires every publicly owned utility to prepare and present a WMP to its governing body by January 1, 2020, and annually thereafter. As further required by Assembly Bill (AB) 1054 enacted in 2019, the WMPs will

be submitted to the California Wildfire Safety Advisory Board for review and advisory opinion by July 1, 2020.

Assembly Bill 1054

On July 12, 2019, Governor Gavin Newsom signed AB 1054. AB 1054 provides for a Wildfire Fund, which electrical corporations may access upon meeting specified requirements. Electrical corporations must opt into the fund, make financial commitments, and maintain a safety certificate from the California Public Utilities Commission (CPUC), among meeting other conditions required by AB 1054.

Fire Safe Development Regulations

The Fire Safe Development Regulations section of the 2018 Strategic Fire Plan implements PRC Section 4290 and stipulates minimum requirements for building construction in SRAs. These regulations address ingress and egress (e.g., road widths, turnouts), building and street sign visibility, emergency water standards, and fuel modification. In June 2012, the Board and CAL FIRE formed a workgroup to revise the Fire Safe Development Regulations. The workgroup made the first significant changes to the regulations since they were initially effective in 1991 and identified future areas of study. Changes to the regulations were effective January 1, 2016. This workgroup was re-engaged in 2017 to align the update timeline for the Fire Safe Regulations with the triennial California Fire Code (CFC) cycle. The workgroup has been reviewing the existing regulations, based on feedback received from the 2016 updates, to reduce inconsistencies and improve clarity. These changes are anticipated to be effective with the 2020 CFC on January 1, 2020.

California Building Code and Fire Code

The California Code of Regulations, Title 24, is a compilation of building standards, including fire safety standards for residential and commercial buildings. The California Building Code (CBC) standards serve as the basis for the design and construction of buildings in California; the CFC is a component of the CBC. Typical fire safety requirements of the CFC include the installation of sprinklers in all high-rise buildings, the establishment of fire resistance standards for fire doors, building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CFC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific CFC regulations have been incorporated by reference, with amendments, in the Los Angeles Building Code, Fire Safety Regulations.

Regional

Office of Emergency Management

The Office of Emergency Management (OEM), established by Chapter 2.68 of the County Code, is responsible for organizing and directing emergency preparedness efforts, as well as the day-to-day coordination efforts, for the County's Emergency Management Organization. The OEM's broad responsibilities include, among others, planning and coordination of emergency services on a countywide basis. The County organizes a formal mutual aid agreement between all emergency responders (including police and fire) within its jurisdiction to provide emergency personnel and resources to assist other member agencies during emergency and/or conditions of extreme peril.

The Mutual Aid Operations Plan provides a structure of response should an emergency arise which requires immediate response by a greater number of emergency personnel than would be available to individual departments using all other available resources.

Los Angeles County All-Hazards Mitigation Plan 2019

To meet the requirements of the Disaster Management Act of 2000, the OEM prepared an All-Hazards Mitigation Plan (AHMP) to assess risks posed by natural hazards and to develop a mitigation action plan for reducing the risks in unincorporated County areas. Hazard mitigation aims to reduce losses from future disasters. It is a process that identifies and profiles hazards, analyzes the people and facilities at risk, and develops mitigation actions to reduce or eliminate hazard risk. The implementation of the mitigation actions includes short- and long-term strategies that involve planning, policy changes, programs, projects, and other activities.

The 2019 AHMP replaces the AHMP that was approved in 2014.

Los Angeles County Operational Area Emergency Response Plan

The Los Angeles County Operational Area Emergency Response Plan (OAERP) addresses the operational area's (OA) coordinated response to emergency situations associated with natural, man-made, and technological incidents. An OA is defined as a single county and all political subdivisions. The OAERP does not address normal day to-day emergencies; the operational concepts reflected in this plan focus on potential large-scale disasters which can generate unique situations requiring an unusual or extraordinary emergency response.

As described above, the AHMP identifies potential threats to the OA. The OAERP identifies procedures to coordinate and support emergency response and recovery activities and will be tested through exercises and validated by the results of actual response. The goal is to maintain an emergency management organization with strong collaborative ties among governments, community-based organizations, volunteers, public service agencies, and the private sector.

Local

As shown on Figure 3.19-1, no wildfire hazards as designated by CAL FIRE are present in Frames 1 through 4 or Frame 9. Therefore, review of wildfire regulations below is focused on Frames 5 through 8.

Frame 5

City of Los Angeles

City of Los Angeles Municipal Code

The City of Los Angeles Municipal Code contains 18 chapters, including Chapter 5, *Public Safety and Protection* (City of Los Angeles 2013). In that document, Article 2, *Police and Special Officers*, contains regulations governing administrative issues, such as requirements for police badges and uniforms, and Article 7, *Fire Protection and Prevention*, contains the fire code for the City of Los Angeles. The City of Los Angeles Fire Code (Fire Code) prescribes laws that may be enforced by the City of Los Angeles Fire Department (LAFD) to help safeguard life and property from fire, explosion, panic, or other hazardous conditions that may arise in the City of Los Angeles. The Fire Code includes information pertaining to administrative issues, such as the requirements for filling out and

submitting Hazardous Materials Release Response Plans and Inventory Statements, and technical requirements associated with the storage, management, and disposal of hazardous materials, such as underground chemical storage tanks, asbestos-containing materials/building material, and various other combustible and flammable materials. The Fire Code also includes mandates from the State of California's Fire Code.

City of Los Angeles General Plan Framework Element

The *Citywide General Plan Framework, an Element of the City of Los Angeles General Plan* (Framework), adopted in December 1996 and readopted in August 2001, provides a comprehensive, long-range strategy for accommodating long-term growth in the City of Los Angeles. The Infrastructure and Public Services chapter of the Framework sets forth goals, objectives, and policies for fire protection and emergency medical services (EMS) in the City of Los Angeles. The objectives and policies in the Infrastructure and Public Services chapter ensure that every neighborhood has the necessary level of fire protection service, EMS, and infrastructure. Under the Framework, the City of Los Angeles standard for response distance from the fire station to the destination location is 1.5 miles (City of Los Angeles 1995), which is consistent with the specifications for response distances in the City of Los Angeles Municipal Code.

City of Los Angeles General Plan Safety Element

The *Safety Element of the Los Angeles City General Plan* (City of Los Angeles 1996) recognizes that most jurisdictions rely on emergency personnel (i.e., police, fire, gas, and water) to respond to and handle emergencies. The Safety Element sets forth specific policies and objectives related to safety. These policies and objectives emphasize hazard mitigation, emergency response, and disaster recovery. The Safety Element serves as a guide for the construction, maintenance, and operation of fire protection facilities in the City of Los Angeles. It sets forth policies and standards for fire station distribution and location, fire suppression water flow (or "fire flow"), firefighting equipment access, emergency ambulance services, and fire prevention activities. Population density, nature of on-site land uses, and traffic flow are also considered by LAFD in evaluating the adequacy of fire protection services throughout the City of Los Angeles.

City of Los Angeles Emergency Operations Organization and Hazard Mitigation Plan

The Emergency Operations Organization within the City of Los Angeles is responsible for the City of Los Angeles's emergency preparations (i.e., planning, training and mitigation), response and recovery operations. The Emergency Operations Organization is composed of all agencies of the City of Los Angeles's government and centralizes command and information coordination to enable its unified chain-of-command to operate efficiently and effectively in managing the City of Los Angeles's resources.

The City of Los Angeles 2018 Hazard Mitigation Plan (HMP) was prepared to lessen the City of Los Angeles's vulnerability to disasters and to reduce risks from natural hazards. An HMP serves as a guide for decision makers as they commit City of Los Angeles resources to minimize the effects of natural hazards. The HMP integrates with existing planning mechanisms, such as building and zoning regulations, long-range planning mechanisms, and environmental planning. The planning process includes conducting a thorough hazard vulnerability analysis, creating community disaster mitigation priorities, and developing subsequent mitigation strategies and projects.

Los Angeles Fire Department Strategic Plan 2018–2020

The LAFD's *Strategic Plan 2018–2020*, *A Safer City 2.0* (LAFD n.d.), is the next generation of the first-ever LAFD strategic plan. This plan focuses on five goals to guide the LAFD in the next 3 years:

1. Provide exceptional public safety and emergency service.
2. Embrace a healthy, safe and productive work environment.
3. Implement and capitalize on advanced technology.
4. Enhance LAFD sustainability and community resiliency.
5. Increase opportunities for personal growth and professional development.

Frame 6

City of Los Angeles

Applicable regulations for the City of Los Angeles are described above in Frame 5.

City of Glendale

City of Glendale General Plan Safety Element

The City of Glendale's *Safety Element of the General Plan* (City of Glendale 2003) contains goals, policies, and regulations to address fire, earthquakes, flooding, and other geologic hazards as well as other safety issues that the City of Glendale considers important. The ultimate objective of the Safety Element is to improve the safety of the City of Glendale, and in the process make the City of Glendale more sustainable and prosperous.

Chapter 4 of the City of Glendale's Technical Report to the Safety Element contains the detailed technical analysis and maps regarding wildland fires used to prepare the Safety Element. Chapter 4 outlines Glendale's susceptibly to wildland fires and hazard mitigation programs currently implemented in the City of Glendale. These programs include Fire Prevention, Vegetation Management, Prescribed Fire, and Hazard Abatement Notices.

Glendale Water and Power Wildfire Mitigation Plan 2019

The *Wildfire Mitigation Plan* (City of Glendale 2019) details a two-pronged approach to mitigate wildfires. Glendale's Water and Power focuses efforts on (1) limiting the likelihood of ignition of localized fires from its assets and equipment and (2) limiting the spread of localized fires into a wildfire. Reducing the likelihood of igniting fires and containing any fires that do start would significantly mitigate the risk of igniting and spreading wildfires while complying with SB 901 and other related mandates.

Mitigating efforts listed in the *Wildfire Mitigation Plan* include, but are not limited to, enhanced vegetation management, use of non-wood poles, 24/7 monitoring of weather station data and high-definition cameras, moving overhead conductors and assets underground, and proactive de-energization during high-wildfire risk periods. Determination of the specific mitigating measure(s) will depend evaluation of criteria such as up-front and life-cycle costs, effectiveness in reducing risk, longevity, impact on reliability and serviceability, and alignment with long-term utility and City of Glendale goals and priorities.

Glendale Fire Department's Vegetation Management Program, Defensible Space Guidelines

The ultimate goal of the Vegetation Management Program is to reduce the risk of buildings being ignited by a nearby wildfire through creating a buffer of defensible space with maintained vegetation between the building and the surrounding unmaintained/natural vegetation. The Vegetation Management Program details vegetation management guidelines for defensible space around buildings (0–100 feet from the building), roads (0–10 feet from the paved surface), and extended distances (100–200 feet from the nearest building). Vegetation management for extended distances may be required by the City of Glendale Fire Department in areas where a specific extreme fire hazard exists.

Frame 7

City of Los Angeles

Applicable regulations for the City of Los Angeles are described above in Frame 5.

City of Burbank

City of Burbank General Plan Safety Element

The *Burbank2035 General Plan* Safety Element (City of Burbank 2013) contains goals and policies that provide Burbank with a framework for keeping residents, businesses, and visitors safe from natural and human hazards. The Safety Element considers the following hazards, as applicable to the City of Burbank: seismically induced conditions including ground shaking, surface rupture, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other geologic hazards; flooding; wildland and urban fires; evacuation routes, police protection, fire protection, emergency response and preparedness, airport safety, and hazardous materials.

Goal 4 of the Safety Element contains policies that center around providing high-quality fire protection services and reducing threats to public safety and property from wildland and urban fire hazards. Policies include maintaining short response times, providing adequate fire protection services, implementing fire prevention and suppression programs in areas of high fire hazard risk, and maintaining adequate fire breaks.

City of Burbank All-Hazard Mitigation Plan (2005)

The City of Burbank's *All-Hazard Mitigation Plan* (City of Burbank 2011) is an update and enhancement of Burbank's original 2005 HMP and covers each of the major natural hazards that pose risks to the City of Burbank. The primary objective of the mitigation plan is to reduce the negative impacts of future disasters on Burbank: to save lives and reduce injuries, minimize damage to buildings and infrastructure (especially critical facilities), and minimize economic losses.

Chapter 7 of the City of Burbank's All-Hazard Mitigation Plan focuses on WUI fires that pose a substantial threat to parts of Burbank. This chapter provides a summary of common strategies for reducing the level of fire risk to both property and life safety in WUI areas. Strategies listed include: reduce the probability of fire ignitions, reduce the probability that small fires will spread, minimize property damage, minimize life safety risk, and adhere to local fire ordinances and policies.

Burbank enforces the 2010 CFC, including the Wildland-Urban Interface Chapter 47, and historically enforced previous versions of the Code. In addition, a Burbank ordinance mandated that all wood shake or shingle roofs in the FHSZ (Mountain Fire Zone) had to be removed by August 14, 2005 and removed city-wide by August 14, 2012.

City of Burbank Municipal Code

Section 9-1-9-304.1.2.2 of the Burbank Municipal Code, Fire Hazard Reduction in Very High Fire Hazard Severity Zone, is added to Chapter 3, Part 9 of the CFC and details specific brush removal, vegetation management, and fire break requirements. This section was added by ordinance No. 19-3,922, effective on January 1, 2020.

Unincorporated County

Los Angeles County Fire Department Strategic Plan 2017–2021

The Los Angeles County Fire Department (LACFD) is responsible for providing fire protection and life safety services to over four million residents residing in 59 cities and all unincorporated County areas. The LACFD Strategic Plan 2017–2021 (LACFD 2018) identifies goals for continuing improvements in the areas of service delivery, operational effectiveness, the welfare of the workforce, emergency preparedness, fostering a culture of inclusivity, and fiscal solvency.

Los Angeles County Fire Department Fire Prevention Service Fees

LACFD Fire Prevention works with developers, architects, and engineers to ensure that all fire protection requirements are met for building improvements, new developments, and structural modifications. Plans are reviewed to ensure the proposed systems meet the CFC and County codes and standards. LACFD, in conjunction with the Los Angeles County Board of Supervisors, implemented fees for fire prevention/life safety services. As of November 1, 2018, LACFD updated and added new fees, including engineering, field permit, film unit, forestry, high rise, land development unit, petroleum/chemical, and regional service fees (LACFD 2019).

Los Angeles County Hillside Management Areas Ordinance

The policies of the *Los Angeles County General Plan* (Los Angeles County 2015), and area and community plans where applicable, seek to preserve significant natural features in hillside areas. The Hillside Management Areas Ordinance and the Hillside Design Guidelines implement those policies by ensuring that hillside development projects use sensitive and creative engineering, architectural, and landscaping site design techniques. Hillside management areas are defined as areas with 25 percent or greater natural slopes. Adherence to Hillside Design Guidelines is required for development in hillside management areas, unless exempted under the ordinance's provisions. In hillside areas with less than 25 percent slope, use of the guidelines is optional but encouraged. The guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects. Some design techniques may be more appropriate or feasible than others, depending on the type of project, location, size, complexity, site constraints, and other design techniques incorporated into the project.

Los Angeles County Code of Ordinances Title 32 Fire Code

The Los Angeles County Fire Code establishes guidelines and requirements for fuel modification and clearance of brush and vegetative growth. Specifically, Fire Code Section 1117.2.1 requires the

submittal of a fuel modification plan, a landscape plan, and an irrigation plan for the area within a proposed project's boundaries designated a Very High FHSZ. The plan must be prepared by a registered landscape architect, landscape designer, landscape contractor, or other individual with expertise acceptable to the forestry division of LACFD prior to any new construction. The Weed Abatement Division of the Los Angeles County Department of Agricultural Commissioner has been given authority to create defensible space for unimproved properties. In accordance with Los Angeles County Fire Code Section 317 et seq., the Agricultural Commissioner may notify all owners of property affected that they must clear all flammable vegetation and other combustible growth or reduce the amount of fuel content for a distance greater than 30 feet, but not to exceed 200 feet.

Los Angeles County General Plan

The *Los Angeles County General Plan* provides the policy framework for how and where the unincorporated County areas will grow through 2035 and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (Los Angeles County 2015).

Chapter 12, the Safety Element, identifies the goals and policies that serve to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. Also, CAL FIRE and the Board have drafted a comprehensive document for wildland fire protection in California. The Forestry Division's Fire Plan Unit is in charge of implementing the California Fire Plan in Los Angeles County. Chapter 13, the Public Services and Facilities Element, provides a summary of some of the major public services and facilities that serve the unincorporated County areas.

Frame 8

City of Los Angeles

Applicable regulations for the City of Los Angeles are described above in Frame 5.

3.19.3 Impact Analysis

3.19.3.1 Methods

The analysis of potential impacts related to wildfire was based on a review of available data to determine the presence of Very High FHSZs within and immediately adjacent to the 2-mile-wide study area and considered whether construction and operations activities associated with the implementation of the *2020 LA River Master Plan* would exacerbate wildfire risk and related hazards. The *2020 LA River Master Plan* consists of two Typical Projects that represent typical improvement projects that could be implemented anywhere in the proposed project study area, six kit of parts (KOP) categories, and implementation of the overall *2020 LA River Master Plan*. Specific project site design and locations are currently unknown. The impact analysis considers the potential for each improvement associated with the *2020 LA River Master Plan* to exacerbate wildfire risk at a programmatic level. Where the two Typical Projects or the six KOP categories have similar impacts related to a specific criterion, the discussion is combined. Where differences between the Typical Projects or the KOP categories are identified, the impact analysis is presented separately. Furthermore, construction and operations impacts are presented together where they largely overlap and it would not be meaningful to discuss them separately to address a specific criterion.

3.19.3.2 Criteria for Determining Significance

Thresholds of Significance

For the purposes of the analysis in this PEIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant environmental impact if, in or near SRAs or lands classified as Very High FHSZs, the Project would:

3.19(a) Substantially impair an adopted emergency response plan or emergency evacuation plan.

3.19(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

3.19(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment.

3.19(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.19.3.3 Impacts and Mitigation Measures

Impact 3.19(a): Would the proposed Project substantially impair an adopted emergency response plan or emergency evacuation plan?

Typical Projects

Common Elements

Construction

Emergency management services in Los Angeles County are overseen by the OEM that provides leadership and coordination of disaster plans and exercises within the 88 cities, 137 unincorporated communities, and 288 special districts in the County. Specifically, LACFD is responsible for providing fire protection and life safety services to over 4 million residents residing in 59 cities and all unincorporated County areas. In addition, the County maintains an AHMP that addresses issues related to multiple hazards, including earthquakes, floods, wildfires, landslides, and tsunamis.

Construction of the Common Elements Typical Project may result in short-term localized increases in delay and traffic queuing that stems from lane closures. Due to the programmatic nature of the *2020 LA River Master Plan*, project sites and staging areas cannot be determined at this time. However, it can be reasonably assumed that staging areas would occur on the LA River right-of-way. All large construction vehicles entering and exiting the site would be guided by personnel using signs and flags to direct traffic. Construction activities for the Common Elements Typical Project would have the potential to temporarily restrict access for emergency vehicles traveling to and around the program sites. However, construction would be required to comply with the Los Angeles

County OAERP, and it is anticipated that construction would not result in the full closure of roadways or other means of emergency access.

Emergency access to facilities within project study area, however, could be temporarily affected by construction, including temporary lane closures and construction-related traffic causing delays or obstructing the movement of emergency vehicles.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure WF-1: Construction Coordination with Emergency and Fire Services.

The implementing agency and construction contractor will regularly notify and coordinate with Los Angeles County and/or local jurisdictions' emergency departments on project construction design, activities, and scheduling. For future projects with substantial construction periods (e.g., more than 10 months), the following measures will be implemented as applicable to minimize construction impacts on emergency response requirements of relevant police and fire departments.

- Prior to the start of construction, consult the fire station(s) serving the project area and review phasing, road/lane closure, and detour plans. The fire station(s) may then identify alternative fire and emergency medical response routes.
- Prior to the start of construction, consult the police station(s) serving the project area, as appropriate, of project-related lane and/or road closures and detour plans. The police station(s) may then identify alternative police emergency response routes.
- If determined to be necessary by the relevant police and/or fire service providers, implement one or more of the following applicable traffic control measures capable of reducing the temporary adverse effects on police and emergency vehicle travel during project construction:
    - Use flag persons to direct traffic.
    - Post "No Parking" signs along the affected area.
    - Install temporary signals or signs to direct traffic or other equivalent traffic control measures.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Once operational, the Common Elements Typical Project could attract up to 500 daily users and 10 daily full-time equivalent operations and maintenance staff. Although proposed development under the *2020 LA River Master Plan* would potentially introduce new structures and increase employees and visitors, it would not result in structures or activities that would substantially obstruct or

interfere with emergency vehicles or impair emergency response or evacuation plans. New development would be constructed in accordance with current building and fire/life/safety ordinance and codes, including all applicable County code requirements and local jurisdiction requirements related to access, water mains, fire flows, and hydrants. New operations associated with the Common Elements Typical Project would not change the existing site access in a way that would impair or interfere with implementation of adopted emergency response plans or evacuation plans. As such, implementation of the Common Elements Typical Project would not impair or physically interfere with an emergency response.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

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

Multi-Use Trails and Access Gateways

Construction

Construction impacts of the Multi-Use Trails and Access Gateways Typical Project would be similar to those described for the Common Elements Typical Project above; however, it could last up to 20 months, disturb a larger area, and have fewer daily workers, but with more extensive construction equipment use. During construction, temporary lane closures and an increase in construction-related traffic within the project study area could delay or obstruct the movement of emergency vehicles. However, construction would be required to comply with the Los Angeles County OAERP, and it is anticipated that construction would not result in the full closure of roadways or other means of emergency access.

Similar to the Common Elements Typical Project, emergency access to facilities within the 51-mile-long and 2-mile-wide study area could be temporarily affected by construction. Temporary lane closures and construction-related traffic within the proposed project area could delay or obstruct the movement of emergency vehicles.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-1, Construction Coordination with Emergency and Fire Services.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Once operational, the Multi-Use Trails and Access Gateways Typical Project could attract up to attract up to 1,000 daily users and three FTE daily operations and maintenance staff. Although proposed development under the *2020 LA River Master Plan* would potentially introduce new structures and increase employees and visitors, it would not result in structures or activities that would substantially obstruct or interfere with emergency vehicles or impair emergency response or evacuation plans. New development would be constructed in accordance with current building and fire/life/safety ordinance and codes, including all applicable County code requirements and local jurisdiction requirements related to access, water mains, fire flows, and hydrants.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

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

2020 LA River Master Plan Kit of Parts

Within all frames, the Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of the Common Elements Typical Project, see above. The impact discussion below focuses KOP categories only.

KOP Categories 1 through 6

Under the *2020 LA River Master Plan*, the multi-benefit design components of the KOP categories can be implemented individually or in combination with other design components as subsequent projects under the *2020 LA River Master Plan*. The specific location (in-channel/off-channel, frame, etc.), configuration, and design details of these subsequent projects would depend on numerous factors, including the proponent of subsequent projects, the implementing agency, community needs, policy decisions, and availability of funding. Once site-specific and project-specific details are available for the subsequent projects informed by the multi-benefit design components of the six KOP categories, additional CEQA analysis would be required before subsequent projects can be implemented.

Construction

The specific location, configuration, and design for KOP categories has not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Potential impacts from construction of the design components under KOP Categories 1 through 6 would vary depending on the specific design component and its intended function. Projects under the KOP categories would likely be larger than Typical Projects. The construction area (including staging areas) could be substantially larger than Typical Projects, have a longer construction

duration with more intensive construction activities, and involve additional temporary lane closures as well as an increase in construction-related traffic within the 51-mile-long and 2-mile-wide study area.

Similar to the Typical Projects, emergency access to facilities within the project study area could be temporarily affected by construction. Temporary lane closures and construction-related traffic within the 51-mile-long and 2-mile-wide study area could delay or obstruct the movement of emergency vehicles.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-1, Construction Coordination with Emergency and Fire Services.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operational impacts for KOP Categories 1 through 6 would be substantially similar to the impacts for Typical Projects. Although proposed development would potentially introduce new structures and increase employees and visitors, it would not result in structures or activities that would substantially obstruct or interfere with emergency vehicles or impair emergency response or evacuation plans. New development would be constructed in accordance with current building and fire/life/safety ordinance and codes, including all applicable County code requirements and local jurisdiction requirements related to access, water mains, fire flows, and hydrants.

Impact Determination

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance after Required Mitigation

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

Overall 2020 LA River Master Plan Implementation

Construction and Operations

The *2020 LA River Master Plan* would involve construction and operation activities to implement 107 projects that could occur anywhere in the study area over a 25-year period. The specific location (in-channel or off-channel), configuration, and design for these components along with

associated operation and maintenance activities have not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Because the specific locations of *2020 LA River Master Plan* projects are unknown, there is a potential for *2020 LA River Master Plan* projects to result in a significant impact related to substantially impairing an adopted emergency response plan or emergency evacuation plan. However, new development would be constructed in accordance with current building and fire/life/safety ordinance and codes, including all applicable County code requirements and local jurisdiction requirements related to access, water mains, fire flows, and hydrants.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-1, Construction Coordination with Emergency and Fire Services.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Impact 3.19(b): Would the proposed Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Typical Projects

Common Elements

Construction

As discussed in Section 3.19.2.1, *Geographic*, State law requires that all local jurisdictions identify Very High FHSZs within their areas of responsibility (California Government Code 51175–51189). Inclusion within these zones is based on vegetation density, slope severity, and other relevant factors that contribute to fire severity. As shown on Figures 3.19-1 through 3.19-5, the 51-mile-long and 2-mile-wide study area includes several areas designated as Very High FHSZs.

Under the *2020 LA River Master Plan*, there is a potential that construction could occur in or adjacent to canyons, steep slopes, or other areas designated as Very High FHSZ areas. Construction activities, when at sites within a Very High FHSZ, would involve equipment that may exacerbate wildfire risk in these areas. Heat or sparks from construction equipment or vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire. This risk is increased during Santa Ana weather events, which consist of low humidity and high wind speeds and can occur year-round in the Los Angeles region, but are more common in the summer and fall (Los Angeles County 2019). The following construction-related equipment and practices of the

Common Elements Typical Project have the potential to generate heat or sparks that could result in wildfire ignition:

- Small cranes, excavators, dump trucks, backhoes, utility trucks, paving machines, loaders, trucks, and vehicles may result in heated exhaust that, if it came into contact with vegetation, could result in fire ignition.
- Welders consist of an open heat source that may result in metallic sparks that could ignite vegetation.

Construction activities could also introduce new potential ignition sources in the form of building materials (e.g., wood), vegetation for landscaping, and other materials for construction that are considered flammable, such as fuels and household cleaners. These potential sources of ignition or fuel would contribute to the risk of a wildfire starting at the construction site, which would exacerbate the existing high wildfire risk if within a Very High FHSZ. If a newly constructed Common Elements Typical Project is within or adjacent to a Very High FHSZ, it could expose additional construction workers to hazardous conditions associated with the high risk of wildfire at the site who were not previously exposed to this risk.

Proposed construction would be required to comply with applicable construction standards that ensure the implementation of fire prevention features. This includes complying with the regulations set forth in the CFC and Occupational Safety and Health Administration Safety and Health Regulations for Construction, during both project planning/design and construction. Chapter 33, Fire Safety During Construction and Demolition, Section 3308 of the CFC requires the preparation of a "pre-fire plan." Occupational Safety and Health Administration Regulations Part 1926 Subpart F, Fire Protection and Prevention, requires the development of a fire protection program through all phases of construction and demolition work, and addresses requirements for appropriate firefighting equipment, water sources, sprinkler systems, and alarm systems. Additionally, all new structures must comply with the CBC and CFC. The CBC establishes fire safety requirements, such as fire resistance standards for fire doors, building materials, and particular types of construction. The CFC includes safety measures to be followed during construction and demolition activities, such as the proper storage procedures for combustible materials and the proper refueling protocol.

Additionally, the *2020 LA River Master Plan* includes recommended *2020 LA River Master Plan* Design Guidelines (Design Guidelines; as described in Chapter 2, *Project Description*, and included in Appendix B) that have been developed to support the development of specific design and technical solutions for subsequent projects to be implemented under the *2020 LA River Master Plan*. Included are wildfire management Design Guidelines for larger projects or those projects that interface with wildfire areas. As applicable, the subsequent projects under the *2020 LA River Master Plan* would be constructed and operated using these recommended Design Guidelines.

The Common Elements Typical Project constructed within lands designated as Very High FHSZs is subject to additional fire safety provisions, including fuel modification plans, review by the State Fire Marshall, and would comply with the County's Very High FHSZ Plan Review.

Existing regulations would address potential fire risks associated with the construction of new structures, including using appropriate equipment, conducting fuel modification, and obtaining review and approval by the State Fire Marshall. However, if construction or demolition activities associated with the *2020 LA River Master Plan* occur within Very High FHSZs, the existing regulations may not adequately address the heightened risks, and further precautions may need to

be taken. Because the locations of future project sites are not known, future sites could have conditions on site that would present additional wildfire risks, and it is not known whether existing regulations would be adequate to address all potential risks. Therefore, construction activities associated with the Common Elements Typical Project within or adjacent to Very High FHSZs could result in a potentially significant impact related to exacerbating wildfire risks of, and thereby exposing project occupants to, direct or indirect risk of injury, loss, or death due to wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

For construction projects that are proposed in or adjacent to areas designated as Very High FHSZs, prior to construction, the implementing agency will prepare a construction fire protection plan. The construction fire protection plan will include, but will not be limited to, the following measures to address potential ignition sources during construction:

- Parking for workers' vehicles and equipment will be designated away from dry brush and other ignition sources.
- Vehicle idling will be prohibited.
- Specify that personnel must be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel will be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.
- Prohibit smoking in wildland areas, with smoking limited to paved areas or areas cleared of all vegetation.
- During high fire risk conditions, designated vehicles will carry fire-prevention equipment, such as water, a shovel, and/or a fire extinguisher, on the construction site at all times.
- Fireproof mats or shields will be used during welding or other construction activities that could produce sparks during high fire risk conditions.
- Demonstrate compliance with applicable plans and policies established by State agencies.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operation of a Common Elements Typical Project could introduce additional visitors and staff. If a newly constructed Common Elements Typical Project is within or adjacent to a Very High FHSZ, it could expose additional visitors, staff, and structures to hazardous conditions associated with the high risk of wildfire at the site who were not previously exposed to this risk. Furthermore, the addition of more people and structures to an area that is designated as a Very High FHSZ could

exacerbate existing wildfire risks by increasing the possibility of human-caused wildfires, as it is estimated that 80 percent of wildfires are ignited by humans (Balch et al. 2017).

The Common Elements Typical Project would be required to operate in compliance with the CFC, CBC, and State-mandated 100-foot defensible space standards (PRC Section 4291). In addition, as applicable, subsequent projects under the *2020 LA River Master Plan* would be operated using the recommended wildfire Design Guidelines included in the *2020 LA River Master Plan*. However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the operation of any Common Elements Typical Project would not exacerbate wildfire risk, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

For projects that are proposed in areas designated as Very High FHSZs, the implementing agency will prepare a fire protection plan (FPP) for the project prior to commencing operation of the facility. The FPP will be prepared to ensure that projects developed within Very High FHSZs are in compliance with current regulatory codes and that impacts resulting from wildland fire hazards are adequately mitigated. The FPP will include, but will not be limited to, the following:

- Measures to address specific location, topography, geology, level of flammable vegetation, and climate of the project site
- Measures consistent with applicable fire codes
- A vegetation management plan that includes measures such as reducing flammable vegetation around the property's structure and installing sprinklers that activate in the case of fire

In addition, the following elements will be included in the FPP:

- Emergency Services – Availability and Travel Time
- Access for Emergency Services and Evacuation of Students and Faculty (primary and, if required, additional access)
- Firefighting Water Supply
- Fire Sprinkler System
- Ignition Resistant Construction
- Defensible Space, Ornamental Landscaping, and Vegetation Management

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Multi-Use Trails and Access Gateways

Construction

Construction impacts of the Multi-Use Trails and Access Gateways Typical Project would be similar to those discussed for the Common Elements Typical Project above under Impact 3.19(b). Construction of the Multi-Use Trails and Access Gateways Typical Project would be similar to that of the Common Elements Typical Project, but could last up to 20 months, disturb a larger area, and have fewer daily workers, but with more extensive construction equipment.

Heat or sparks from construction equipment or vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire. The following construction-related equipment and practices of the Multi-Use Trails and Access Gateways Typical Project have the potential to generate heat or sparks that could result in wildfire ignition: excavators, dump trucks, backhoes, motor graders, hydraulic impact hammers, forklifts, paving machines, and truck-mounted cranes. Welders consist of an open heat source that may result in metallic sparks that could ignite vegetation.

Existing regulations would address potential fire risks associated with the construction of new structures, including using appropriate equipment, conducting fuel modification, and obtaining review and approval by the State Fire Marshall. However, if construction or demolition activities associated with the *2020 LA River Master Plan* occur within Very High FHSZs, the existing regulations may not adequately address the heightened risks, and further precautions may need to be taken. Therefore, impacts are potentially significant.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Once operational, the Multi-Use Trails and Access Gateways Typical Project could attract up to 1,000 daily users and three daily FTE operations and maintenance staff. If a newly constructed Multi-Use Trails and Access Gateways Typical Project is within or adjacent to a Very High FHSZ, it could expose additional visitors, staff, and structures to hazardous conditions associated with the high risk of wildfire at the site who were not previously exposed to this risk.

The Multi-Use Trails and Access Gateways Typical Project would be required to operate in compliance with the CFC, CBC, and State-mandated 100-foot defensible space standards (PRC Section 4291). However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the

operation of any Multi-Use Trains and Access Gateways Typical Project would not exacerbate wildfire risk, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

2020 LA River Master Plan Kit of Parts

Within all frames, the Common Elements Typical Project analyzed above could be implemented in whole or as a combination of its individual elements with all the KOP categories discussed below. Therefore, for potential impacts of Common Elements Typical Project, see above. The impact discussion below focuses on specific KOP categories only.

KOP Categories 1 through 6

Construction

The specific location and design for the KOP category design components has not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Potential impacts from construction of the design components under KOP Categories 1 through 6 would vary depending on the specific design component and its intended function. Projects under KOP Categories 1 through 6 would likely be larger than Typical Projects.

There is a potential that construction could occur in or adjacent to canyons, steep slopes, or other areas designated as Very High FHSZ areas. Construction activities, when at sites within a Very High FHSZ, would involve equipment that may exacerbate wildfire risk in these areas. Heat or sparks from construction equipment or vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire.

Similar to the Typical Projects, existing regulations would address potential fire risks associated with the construction of new structures, including using appropriate equipment, conducting fuel modification, and obtaining review and approval by the State Fire Marshall. However, if construction or demolition activities associated with the *2020 LA River Master Plan* occur within Very High FHSZs, the existing regulations may not adequately address the heightened risks, and further precautions may need to be taken. Because the locations of future project sites are not known, future sites could have conditions on site that would present additional wildfire risks, and it is not known whether existing regulations would be adequate to address all potential risks. Therefore, construction activities associated with KOP Categories 1 through 6 within or adjacent to Very High FHSZs could result in a potentially significant impact related to exacerbating wildfire risks of, and thereby exposing project occupants to, direct or indirect risk of injury, loss, or death due to wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operational impacts for KOP Categories 1 through 6 would be substantially similar to the impacts for the Typical Projects. The operation of KOP categories could introduce additional visitors and staff. If a newly constructed project with KOP category design components is within or adjacent to a Very High FHSZ, it could expose additional visitors, staff, and structures to hazardous conditions associated with the high risk of wildfire at the site who were not previously exposed to this risk.

All KOP categories would be required to operate in compliance with the CFC, CBC, and State-mandated 100-foot defensible space standards (PRC Section 4291). However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the operation of any KOP categories would not exacerbate wildfire risk, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Overall 2020 LA River Master Plan Implementation

Construction

The *2020 LA River Master Plan* would involve construction of 107 projects that include recreational facilities that could occur anywhere in the study area over a 25-year period. The specific location (in-channel or off-channel), configuration, and design for these components have not been determined yet and would depend on numerous factors, including project proponent and

availability of funding. Construction under the *2020 LA River Master Plan* could result in impacts similar to those described above for the Typical Projects and KOP categories.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

The *2020 LA River Master Plan* includes the implementation of multi-benefit projects that would serve a range of functions and uses including flood management, ecological, and recreational uses. Examples of recreational facilities and uses include trails, parks, skate parks, cafés, amphitheaters, farmer's markets, and arts and culture facilities. This would increase the amount of development within the 51-mile-long and 2-mile-wide study area along the LA River.

As applicable, the subsequent projects under the *2020 LA River Master Plan* would be constructed and operated using the recommended wildfire Design Guidelines included in the *2020 LA River Master Plan*. In addition, as specified in the Design Guidelines, projects along the LA River under the *2020 LA River Master Plan* would require the submission of a 3-year maintenance and monitoring program for vegetation management. All new development would be required to operate in compliance with the CFC, CBC, and State-mandated 100-foot defensible space standards (PRC Section 4291). However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the operation of any new projects would not exacerbate wildfire risk, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Impact 3.19(c): Would the proposed 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 result in temporary or ongoing impacts on the environment?

Typical Projects

Common Elements

Construction

The Common Elements Typical Project could be constructed on land without utilities or other infrastructure, or on developed sites that would require relocation of or modifications to existing utilities and infrastructure. Construction of the Common Elements Typical Project could require localized installation of water, electric, natural gas, and sewer infrastructure such as mains and distribution pipes, as well as relocation of existing utilities on certain sites. Given the relatively small size of the Common Elements Typical Project (no more than 3 acres), major utility upgrades would not likely be required. However, the installation or extension of new utilities, such as water, electricity, and telecommunications, on sites that are within or adjacent to Very High FHSZ areas could exacerbate wildfire risk, particularly the installation of electrical utilities, due to the high fire-ignition potential of electricity and the highly flammable nature of materials used during construction.

Construction of the Common Elements Typical Project would be required to comply with all applicable CBC and CFC requirements for development in a Very High FHSZ including, but not limited to, specific requirements for structural hardening, water supply and flow, hydrant and standpipe spacing, signage, and fire department access. The construction process of installing overhead or underground electric utilities may temporarily increase the risk of fire ignition due to the type of materials and equipment used during the process, as well as the high fire risk of electricity in general. Electric utility construction would be conducted by qualified technicians (either Southern California Edison personnel or the local jurisdiction's electrical utilities' personnel) who would implement proper safety procedures required by CPUC, and the structures to which these utilities would supply electricity would be required to be built in accordance with CBC requirements. However, due to the unknown future locations of project sites it is possible the construction or extension of utilities associated with the Common Elements Typical Project would exacerbate the existing wildfire risk at the site if they are located in Very High FHSZs. Therefore, implementation of the Common Elements Typical Project may include construction activities that would exacerbate wildfire risk or result in additional temporary or permanent impacts on the environment.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operation of the Common Elements Typical Project would not require the installation of new infrastructure once the project has been constructed or completed. A Common Elements Typical Project on a developed site would be served by existing public utilities or, if public utilities do not exist on the site, they would be extended from the nearest location to the site (see Section 3.18, *Utilities/Service Systems*). Operation of the Common Elements Typical Project within or adjacent to Very High FHSZs will require the implementation of certain measures to protect defensible space surrounding the property, such as routine vegetation clearing or additional sprinkler systems. These measures would be intended to reduce the potential risk of fire ignition and spread. While protective measures such as brush management are intended to reduce wildfire risk, the ongoing removal of vegetation could result in other impacts on the environment. Therefore, because the locations of Common Elements Typical Projects are unknown, and the types of fire breaks or utilities that may be required at these locations are unknown, there is the potential that operation and maintenance of fire breaks, utilities, or other infrastructure could pose temporary or permanent environmental impacts.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Multi-Use Trails and Access Gateways

Construction

Construction impacts of the Multi-Use Trails and Access Gateways Typical Project would be similar to those discussed for the Common Elements Typical Project above under Impact 3.19(c). Construction of the Multi-Use Trails and Access Gateways Typical Project would be similar to that of the Common Elements Typical Project but could last up to 20 months, disturb a larger area, and have fewer daily workers, but with more extensive construction equipment use (such as hydraulic impact hammers, forklifts, and truck-mounted cranes).

The Multi-Use Trails and Access Gateways Typical Project could be constructed on land without utilities or other infrastructure or on developed sites that would require relocation or modifications to existing utilities and infrastructure. Construction of the Multi-Use Trails and Access Gateways Typical Project would require localized installation of water, electric, natural gas, and sewer infrastructure such as mains and distribution pipes, as well as relocation of existing utilities on

certain sites. Given the type of project (continuous path for multiple uses such as bike trails, equestrian trails, and pedestrian trails and access gateways for access to the river), it would not be anticipated that major utility upgrades would be required. However, due to the unknown future locations of project sites it is possible the construction or extension of utilities associated with the Multi-Use Trains and Access Gateways Typical Project would exacerbate the existing wildfire risk at the sites if located in Very High FHSZs.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Once operational, the Multi-Use Trails and Access Gateways Typical Project could attract up to 1,000 daily users and three daily FTE operations and maintenance staff. Operation of the Multi-Use Trails and Access Gateways Typical Project within or adjacent to Very High FHSZs may require the implementation of certain measures to protect defensible space surrounding the property, such as routine vegetation clearing or additional sprinkler systems. These measures would be intended to reduce the potential risk of fire ignition and spread. While protective measures such as brush management are intended to reduce wildfire risk, the ongoing removal of vegetation could result in other impacts on the environment.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

2020 LA River Master Plan Kit of Parts

KOP Categories 1 through 6

Construction

The specific location and design for these KOP category design components has not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Potential impacts from construction of the design components under the KOP categories would vary depending on the specific design component and its intended function. Projects under the KOP categories would likely be larger than Typical Projects.

KOP categories could be constructed on land without utilities or other infrastructure or on developed sites that would require relocation or modifications to existing utilities and infrastructure. Construction of KOP categories would require localized installation of water, electric, natural gas, and sewer infrastructure such as mains and distribution pipes, as well as relocation of existing utilities on certain sites. Given the variance of types of projects, it could be anticipated that major utility upgrades would be required. Due to the unknown future locations of project sites it is possible the construction or extension of utilities associated with the KOP categories would exacerbate the existing wildfire risk at the sites if located in Very High FHSZs.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operational impacts for KOP categories would be substantially similar to the impacts for the Common Elements Typical Project. Operation of KOP categories within or adjacent to Very High FHSZs may require the implementation of certain measures to protect defensible space surrounding the property, such as routine vegetation clearing or additional sprinkler systems. These measures would be intended to reduce the potential risk of fire ignition and spread. While protective measures such as brush management are intended to reduce wildfire risk, the ongoing removal of vegetation could result in other impacts on the environment.

All KOP categories would be required to operate in compliance with the CFC, CBC, and State-mandated 100-foot defensible space standards (PRC Section 4291). However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the operation of any KOP categories would not exacerbate wildfire risk.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Impacts would be significant and unavoidable.

Overall 2020 LA River Master Plan Implementation

Construction and Operation

The *2020 LA River Master Plan* would involve construction of 107 projects that include recreational facilities that could occur anywhere in the study area over a 25-year period. The specific location (in-channel or off-channel), configuration, and design for these components have not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Construction of the *2020 LA River Master Plan* would be required to comply with all applicable CBC and CFC requirements for development in a Very High FHSZ including, but not limited to, specific requirements for structural hardening, water supply and flow, hydrant and standpipe spacing, signage, and fire department access. The construction process of installing overhead or underground electric utilities may temporarily increase the risk of fire ignition due to the type of materials and equipment used during the process, as well as the high fire risk of electricity in general. Electric utility construction would be conducted by qualified technicians (either Southern California Edison personnel or local jurisdiction's electrical utilities' personnel) who would implement proper safety procedures required by CPUC, and the structures to which these utilities would supply electricity would be required to be built in accordance with CBC requirements. However, due to the unknown future locations of project sites it is possible the construction or extension of utilities associated with implementation of the *2020 LA River Master Plan* could exacerbate the existing wildfire risk at the site if they are located in Very High FHSZs.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measures, which are described above.

Mitigation Measure WF-2: Prepare a Construction Fire Protection Plan.

Mitigation Measure WF-3: Prepare a Fire Protection Plan.

Significance after Required Mitigation

Construction impacts would be less than significant for construction within County jurisdiction and would be significant and unavoidable outside of the County's jurisdiction. Operations impacts would be significant and unavoidable.

Impact 3.19(d): Would the proposed 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?

Typical Projects

Common Elements

Construction

Wildfires can greatly reduce the amount of vegetation on hillsides. Plant roots stabilize the soil and aboveground plant material slows water flow, allowing it to percolate into the soil. Removal of surface vegetation resulting from a wildfire reduces the ability of the soil surface to absorb rainwater and can allow for increased runoff that may include large amounts of debris. If hydrophobic conditions exist post-fire, the rate of surface water runoff is increased as water percolation into the soil is reduced (Moench and Fusaro 2012). The potential for surface runoff and debris flows therefore increases substantially for areas recently burned by large wildfires. According to the U.S. Geological Survey, fast-moving and highly destructive debris flows triggered by intense rainfall are considered one of the most dangerous post-wildfire hazards (USGS 2018). Slope failures, mudflows, and landslides are common in areas where steep hillsides and embankments are present, and such conditions would be exacerbated in a post-fire environment where vegetative cover has been removed. These hazards pose a risk to life and property due to their sudden occurrence, extreme force, and ability to strip vegetation, block drainages, and damage infrastructure. The U.S. Geological Survey further notes that post-wildfire flooding and runoff may continue for several years in burn areas although the greatest risk of debris flow happens during the first post-fire storm season (USGS 2018).

As discussed in Section 3.9, *Hydrology and Water Quality*, the project study area is predominantly outside of the Federal Emergency Management Agency (FEMA) 100-year floodplain. However, the LA River Channel and tributaries to the channel are within the FEMA special flood hazard area in the 100-year floodplain. Areas adjacent to the channel are moderate flood hazard areas between the limits of the FEMA 100- and 500-year floodplain (Zone X [shaded]) or areas of minimal flood hazard beyond the 500-year floodplain (Zone X [unshaded]), depending on variations in the surrounding topology (as identified by FEMA's Flood Insurance Rate Maps; see Figure 3.9-1).

Areas adjacent to a flood zone could experience flood conditions during large storm events made more severe by runoff caused by post-fire conditions. The Common Elements Typical Project may be within both Very High FHSZ areas and mapped flood zone areas. In addition, project sites at the base of slopes or canyons could experience increased runoff and drainage changes that could result in downhill flood conditions due to post-fire slope instability. Construction of the Common Elements Typical Project in both Very High FHSZs and flood zones or other flood-prone areas could expose workers and property to additional flood risk from post-fire flooding due to increased runoff or altered drainage. However, as stated in Section 3.9, *Hydrology and Water Quality*, **Mitigation**

Measure HYDRO-1a would require site-specific drainage studies to address stormwater management.

There are areas adjacent to the LA River classified as having a high potential for landslides or being landslide-prone (see Figures 3.6-1 through 3.6-9 in Section 3.6, *Geology, Soils, and Paleontological Resources*). However, as described in Section 3.6, **Mitigation Measure GEO-1** would require site-specific geotechnical studies and implementation of their recommendations prior to beginning construction activities. Lastly, construction personnel required would involve small numbers on a brief, temporary basis, staying on site only during construction. However, wildfires could exacerbate conditions of slope instability or flood because wildfires destroy vegetation and change soil conditions, which could expose people or structures to post-fire hazards regardless of whether geologic hazards are addressed during project design. Because the locations of specific sites are unknown at this time, construction of projects located in Very High FHSZs or that have recently involved wildfires combined with areas prone to landslides or slope instability could expose workers, structures, and property to significant risks related to post-fire conditions.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

This measure is required to ensure that if a project is in Very High FHSZs or an area that was recently burned by wildfire, then the implementing agency will prepare a post-fire risk reduction plan. The plan will focus on the specific construction site and be finalized prior to the beginning of construction. The post-fire risk reduction plan will implement one or more of the following applicable measures:

- Treat all wildfire burned areas within the construction area to control stormwater runoff prior to winter rains.
- Restore wildfire areas within the construction area by planting native vegetation cover or encouraging the re-growth of native species using best practices as soon as possible to aid in control of stormwater runoff.
- Remove dead, woody vegetation along watercourses following a catastrophic fire, as directed by local fire officials.
- Post-fire, implement slope stabilization measure by planting native vegetation cover as soon as possible to aid in landslide control, as directed by local fire officials.
- Ensure excess storm flow is properly diverted away from important property improvements or unstable slopes.
- Check drainage systems and clear out culverts, roof gutters, street gutters, infiltration and detention basins, concrete waterways, etc., to allow water to drain, as directed by local fire officials.
- Remove potentially toxic materials, ideally before rain washes toxic runoff into storm drains and waterways, as directed by local fire officials.

- Minimize foot traffic, equipment, and disturbance on burned landscapes.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

The location of the Common Elements Typical Project could be within or adjacent to a Very High FHSZ and an area prone to flood, landslide, or slope instability. The operation of these new facilities could introduce visitors, staff, and structures into an area highly susceptible to landslides or slope instability after a wildfire event.

Therefore, operating a new project or facility in these areas would be exacerbating the existing risk of post-fire hazard by exposing additional people to this existing hazard. Because the locations of projects are unknown, implementation of the Common Elements Typical Project could result in a significant impact related to post-fire hazards.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities.

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Multi-Use Trails and Access Gateways

Construction

As high fire conditions, slope instability, and potential flooding conditions in the project study area would be similar to those described under the Common Elements Typical Project above, the impacts of the Multi-Use Trails and Access Gateways Typical Project would also be similar.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Similar to the Common Elements Typical Project, the location of the Multi-Use Trails and Access Gateways Typical Project could be within a Very High FHSZ and an area prone to flood, landslide, or slope instability. The operation of the projects could introduce new staff, visitors, and structures into an area highly susceptible to landslides or slope instability after a wildfire event. Therefore, operating a Multi-Use Trails and Access Gateways Typical Project in these areas would be exacerbating the existing risk of post-fire hazard by exposing additional people to this existing hazard. Because the locations of future projects are unknown, there is a potential the implementation of the Multi-Use Trails and Access Gateways Typical Project could result in a significant impact related to post-fire hazards.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities.

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

2020 LA River Master Plan Kit of Parts

KOP Categories 1 through 6

Construction

The specific location and design for these design components has not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Potential impacts from construction of the design components under KOP categories would vary depending on the specific design component and its intended function. Projects under the KOP categories would likely be larger than Typical Projects.

Construction of KOP categories adjacent to or located in Very High FHSZs that are also areas prone to flood, landslide, or slope instability would have the potential to 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 change.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities.

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Operations

Operational impacts for KOP categories would be substantially similar to the impacts for the Common Elements Typical Project. Depending on the locations of the KOP categories, projects could be within or adjacent to a Very High FHSZ and an area prone to flood, landslide, or slope instability. The operation of these projects could introduce visitors, staff, and structures into an area highly susceptible to landslides or slope instability after a wildfire event.

All KOP categories would be required to operate in compliance with the CFC and CBC. However, because the exact locations of project sites are unknown at this time, and could be within or immediately adjacent to a Very High FHSZ, it cannot be guaranteed that the operation of any KOP categories would not exacerbate wildfire risk.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities.

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Overall 2020 LA River Master Plan Implementation

Construction and Operations

The *2020 LA River Master Plan* would involve construction of 107 projects that include recreational facilities that could occur anywhere in the study area over a 25-year period. The specific location (in-channel or off-channel), configuration, and design for these components have not been determined yet and would depend on numerous factors, including project proponent and availability of funding. Construction of the *2020 LA River Master Plan* would be required to comply with all applicable CBC and CFC requirements for development in a Very High FHSZ including, but not limited to, specific requirements for structural hardening, water supply and flow, hydrant and standpipe spacing, signage, and fire department access. However, construction of *2020 LA River Master Plan* projects that are adjacent to or in Very High FHSZs as well as areas prone to flood, landslide, or slope instability would have the potential to 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 change.

Impact Determination

Impacts would be potentially significant.

Mitigation Measures

Apply the following mitigation measure, which is described above.

Mitigation Measure WF-4: Post-Fire Risk Reduction Plan.

Apply the following mitigation measure, which is described in Section 3.6, *Geology, Soils, and Paleontological Resources*.

Mitigation Measure GEO-1: Conduct a Site-Specific Geotechnical Study and Implement Recommendations for Load-Bearing Subsequent Projects Prior to Construction Activities.

Apply the following mitigation measure, which is described in Section 3.9, *Hydrology and Water Quality*.

Mitigation Measure HYDRO-1a: Require Site-Specific Drainage Studies to Address Stormwater Management.

Significance after Required Mitigation

Impacts would be less than significant for later activities when carried out by the County.

Impacts would be significant and unavoidable for later activities when not carried out by the County.

Cumulative Impacts

The geographic context for an analysis of cumulative impacts related to wildfire is the six-county Southern California Association of Governments (SCAG) region, as counties in this region are adjacent to Los Angeles County and projects in this region could contribute to cumulative wildfire impacts. A description of the regulatory setting and approach to cumulative impacts analysis is provided in Section 3.0.2.

Criteria for Determining Significance of Cumulative Impacts

The proposed Project would have the potential to result in a cumulatively considerable impact related to wildfire, if, in combination with other projects within the greater Los Angeles region, it would: substantially impair an adopted emergency response plan or emergency evacuation plan; exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; 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 on the environment; or 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.

Cumulative Condition

Los Angeles County faces major wildland fire threats due to its hilly terrain, dry weather conditions, and the nature of its plant coverage. Although fires are a natural part of the wildland ecosystem, development in wildland areas increases the danger of wildfires to residents, property, and the environment. Cumulative growth and development within the Los Angeles region would increase the number of wildfire events and increase the exposure of people to risks associated with wildfires. Continued growth and development in Los Angeles County would significantly affect LACFD operations, as well as the operations of individual jurisdictions' fire departments. In an effort to reduce the threats to lives and property, LACFD in particular has instituted a variety of regulatory programs and standards for vegetation management, pre-fire management and planning, fuel modification, and brush clearance. In addition to these programs, LACFD and Public Works enforce fire and building codes related to development in Very High FHSZs. The LACFD has access requirements for single-family residential uses built in Very High FHSZs. Individual jurisdictions in the study area have similar policies and programs related to wildfire management. Any future development would be required to comply with applicable federal, State, and local regulations related to wildland fires.

Implementation of the transportation projects included in the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)—when taken into consideration with related development and infrastructure projects within the SCAG region and surrounding areas, and anticipated growth and land use development patterns—would contribute to cumulative significant impacts with regard to the potential to expose people and structures to wildland fires. The 2020 RTP/SCS includes a set of regional land use strategies that are intended to guide future land development patterns to focus new growth in transit priority areas or existing infill sites, existing suburban town centers, and walkable mixed-use communities. While the specific impact of this pattern of development relative to wildland fires is unknown, it could result in cumulative

significant impacts with regard to more people being exposed to the effects of effects of wildland fires (SCAG 2020). Therefore, there is a cumulative condition with respect to wildfire.

Contribution of the Project to Cumulative Impacts

The proposed Project would result in development within urban or suburban areas. However, some projects would occur in areas that are designated as Very High FHSZs. Projects constructed within lands designated as Very High FHSZs are subject to additional fire safety provisions, including fuel modification plans and review by the State Fire Marshall, and they would comply with the County's Very High FHSZ Plan Review. Construction of projects under the *2020 LA River Master Plan* would not be performed near flammable materials that would exacerbate wildfire risks. Compliance with existing laws for construction sites on, adjacent to, or in the immediate vicinity of a Very High FHSZ would further minimize potential risks. The *Los Angeles County General Plan* policies and conditions of approval for future development projects, in addition to compliance with applicable regulations, would minimize proposed Project impacts related to wildland fires. Implementation of Mitigation Measures WF-1, WF-2, WF-3, and WF-4 would reduce potential impacts on wildfire from the proposed Project, but not to a less-than-significant level. Considering the cumulative condition with respect to wildfire and that the Project would be implemented in Very High FHSZs, the Project would result in a cumulatively consideration contribution to wildfire impacts, including with regard to more people being exposed to the effects of wildland fires.