4.18 WILDFIRE

This chapter describes the regulatory framework and existing conditions of the City of San Mateo Environmental Impact Report (EIR) Study Area and evaluates the potential wildfire impacts from adopting and implementing the proposed General Plan 2040 and proposed Climate Action Plan update, and from future development and activities that could occur under the proposed project. A summary of the relevant regulatory framework and existing conditions is followed by a discussion of potential impacts and cumulative impacts related to implementation of the proposed project.

4.18.1 ENVIRONMENTAL SETTING

4.18.1.1 REGULATORY FRAMEWORK

Federal Regulations

National Cohesive Wildfire Management Strategy

In the Federal Land Assistance, Management, and Enhancement Act of 2009 (FLAME Act), Congress mandated the development of a National Cohesive Wildland Fire Management Strategy for all lands in the United States. Wildfire management is guided by the National Cohesive Wildland Fire Management Strategy, which has three primary goals:[1]

- Resilient landscapes
- Fire adapted communities
- Safe and effective wildfire response

These three goals enable land managers to manage vegetation and fuels; protect homes, communities, and other values at risk; manage human-caused ignitions; and effectively and efficiently respond to wildfires. California is part of the Western Regional Strategy Committee, chartered to support and facilitate the implementation of the National Cohesive Wildland Fire Strategy.

National Fire Protection Association Standards

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. NFPA standards are recommended (advisory) guidelines for fire protection that are referenced in the California Fire Code (CFC), which is adopted by the San Mateo Consolidated Fire Department (SMC Fire) every three years. Specific standards applicable to wildland fire hazards include, but are not limited to:

[1] United States Department of the Interior and United States Department of Agriculture, April 2014, *National Cohesive Wildland Fire Management Strategy*, https://www.forestsandrangelands.gov/documents/strategy/strategy/CSPhaseIIINationalStrategyApr2014.pdf, accessed December 15, 2022.

- **NFPA 1141**, Fire Protection Infrastructure for Land Development in Wildlands
- **NFPA 1142**, Water Supplies for Suburban and Rural Fire Fighting
- **NFPA 1143**, Wildland Fire Management
- **NFPA 1144**, Reducing Structure Ignition Hazards from Wildland Fire
- **NFPA 1710**, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations

State Regulations

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for land in State Responsibility Areas (SRA), conducts educational and training programs, provides fire planning guidance and mapping, and reviews general plan safety elements to ensure compliance with State fire safety requirements. CAL FIRE staff, or a designee, also reviews building permit applications, parcel maps, and use permits for construction or development in SRAs and Local Responsibility Areas (LRA).

The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the State, determining the guidance policies of CAL FIRE, and representing the State's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves general plan safety elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include 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 within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions in State Responsibility Area (SRAs) or very high fire hazard severity zones (VHFHSZs), the Land Use Planning Program division of the Office of State Fire Marshal reviews safety elements during the update process to ensure consistency with California Government Code, Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, Office of State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction.

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates fire hazard severity zones (FHSZ) as authorized under California Government Code Sections 51175 et seq. FHSZs may be designated Very High, High, or Moderate. CAL FIRE considers many

factors when designating fire severity zones, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates FHSZ in two types of areas depending on which level of government is financially responsible for fire protection:

- **Local Responsibility Area (LRA):** Incorporated communities are financially responsible for wildfire protection.
- **State Responsibility Area (SRA):** CAL FIRE and contracted counties are financially responsible for wildfire protection.

CAL FIRE Strategic Plan

CAL FIRE produced the 2018 *Strategic Fire Plan for California*, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.[2] The 2018 *Strategic Fire Plan for California* focuses on fire prevention and suppression activities to protect lives, property, and ecosystems, in addition to providing natural resource management to maintain State forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 *Strategic Fire Plan for California* is the collaboration between communities to ensure fire suppression and natural resource management is successful.[3]

2021 California's Wildfire and Forest Resilience Action Plan

The Governor's Forest Management Task Force developed California's Wildfire and Forest Resilience Action Plan, which is a framework for establishing healthy and resilient forests that can withstand and adapt to wildfire, drought, and climate change. The Wildfire and Forest Resilience Action Plan accelerates efforts to restore the health and resilience of California's forests, grasslands, and natural places; improves the fire safety of communities; and sustains the economic vitality of rural forested areas. CAL FIRE, in partnership with the US Forest Service, intends to scale up forest thinning and prescribed fire; integrate climate adaptation into the statewide network of regional forest and community fire resilience plans; improve the electricity grid resilience; and promote sustainable land use.

State Responsibility Area and Very High Fire Hazard Severity Zone Fire Safe Regulations

California Code of Regulations (CCR) Title 14, Division 1.5, Chapter 7, Subchapter 2, *SRA/VHFHSZ Fire Safe Regulations*, establishes minimum wildfire protection standards for construction and development within the SRA and VHFHSZ and requires CAL FIRE to review development proposals and enact recommendations that serve as conditions of approval in these zones. These regulations apply to all residential, commercial, and industrial buildings in the VHFHSZ and all tentative and parcel maps. These standards include basic emergency access and perimeter wildfire protection measures, signing and building numbering, private water supply resources for emergency fire use, and vegetation modification.

[2] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/fire-plan/, accessed April 11, 2023.

[3] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/fire-plan/, accessed April 11, 2023.

Fire Safe Regulations also include a minimum setback of 30 feet for all buildings from property lines and/or the center of a road. Section 1273.08, *Dead-End Roads,* of these standards provide regulations for the maximum lengths of single-access roadways requiring the following:

- Parcels zoned for less than 1 acre: 800 feet
- Parcels zoned for 1 to 4.99 acres: 1,320 feet
- Parcels zoned for 5 to 19.99 acres: 2,640 feet
- Parcels zoned for 20 acres or larger: 5,280 feet

Fire Safe Regulations, Section 1299.03, *Fire Hazard Reduction Around Buildings and Structure Requirements*, provides defensible space requirements for areas within 30 feet of a structure (Zone 1) and between 30 and 100 feet from a structure (Zone 2). In Zone 1, all dead and dying plants must be removed as must any flammable vegetation that could catch fire. In Zone 2, horizontal and vertical spacing among shrubs and trees must be created and maintained.

Public Resources Code Section 4291

Public Resources Code (PRC) Section 4291, *Mountainous, Forest-, Brush- and Grass-Covered Lands*, is intended for any person who owns, lease, controls, operates, or maintains a building or structure in a mountainous area, forest-covered lands, shrub-covered lands, grass-covered lands, or land that is covered with flammable material, regardless of whether the property is in an SRA or VHFHSZ. This section requires defensible space to be maintained within 100 feet from each side of a structure. An ember-resistant zone is also required within 5 feet of a structure and more intense fuel reduction between 5 and 30 feet of a structure.

California Building Code

Building Design Standards

The State of California provides a minimum standard for building design through CCR Title 24, Part 2, commonly referred to as the "California Building Code" (CBC). The CBC is updated every three years. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. The City of San Mateo regularly adopts each new CBC update under the San Mateo Municipal Code (SMMC) Chapter 23.08, *Building Code*. Commercial and residential buildings are plan-checked by local City and County building officials for compliance with the CBC and any applicable local amendments. Typical fire safety requirements of the CBC include the installation of sprinklers in all buildings and other facilities; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction in high FHSZs; requirements for smoke-detection systems; exiting requirements; and the clearance of debris.

Materials and Methods for Exterior Wildfire Exposure

Chapter 7A, *Materials and Methods for Exterior Wildfire Exposure*, of the CBC prescribes building materials and construction methods for new buildings in a FHSZ or Wildland Interface Fire Area. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing;

exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures. Other requirements include vegetation management compliance, as prescribed in CFC Section 4906 and PRC 4291.

California Fire Code

The CFC incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the State and all political subdivisions. It is found in CCR Title 24, Part 9, and, like the CBC, it is revised and published every three years by the California Building Standards Commission. Also like the CBC, the CFC is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The San Mateo Consolidated Fire Department, the City's fire service provider, regularly adopts each new CFC update under the *San Mateo Consolidated Fire Department Fire Code*. The CFC is a model code that regulates minimum fire safety regulations for new and existing buildings; facilities; storage; processes, including emergency planning and preparedness; fire service features; fire protection systems; hazardous materials; fire flow requirements; and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all 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.

Fire Safety During Construction and Demolition

Chapter 33 of the CFC, *Fire Safety During Construction and Demolition*, provides requirements for fire safety precautions during construction and demolition of a development project. The purpose of this chapter is to provide reasonable safety to life and property from fire during construction and demolition operations, including those in underground locations. Specific requirements include a prohibition of smoking on-site, except for in approved areas; management of combustible materials and debris; cutting and welding; electrical wiring; and cooking. Additional requirements include the preparation of site safety plans prior to building permit issuance, providing fire watch during nonworking hours, and maintaining water supply for fire protection as soon as combustible materials arrive on a project site.

Wildland-Urban Interface Areas

Chapter 49, *Requirements for Wildland-Urban Interface Fire Areas*, of the CFC applies to any geographical area identified as a FHSZ by CAL FIRE or by a local agency. It defines FHSZs, connects to the SRA/VHFHSZ Fire Safe Regulation requirements for defensible space, and parallels requirements for wildfire protection buildings construction and hazardous vegetation fuel management in other sections of the CCR and the PRC. Chapter 49 of the 2022 CFC includes a definition for the Wildland-Urban Interface (WUI) and provides requirements for fire protection plans, landscape plans, long-term vegetation management, and creation and maintenance of defensible space for all new development within the WUI. SMC Fire has modified these regulations in their adoption of the CFC and has also adopted and modified the IWUIC.

WILDFIRE

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial communication facilities near power lines. In response, the California Public Utilities Commission (CPUC) began considering and adopting regulations to protect the public from fire hazards due to overhead power lines and nearby aerial communication facilities. The CPUC published a Fire Threat Map under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024, which adopted a work plan for the development of a utility High Fire Threat District where enhanced fire safety regulations in Decision 17-12-024 apply.[4] The fire regulations require electric utilities to:[5]

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in "Tier 2" (elevated fire threat) areas on the CPUC High Fire-Threat District within 12 months, and in "Tier 3" (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines within the High Fire Threat District.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the High Fire Threat District.

California Government Code

California Government Code Section 65302(g) and Section 65302.15 require that safety elements be reviewed and revised as needed with the revision of a housing element or local hazard mitigation plan, but no less than every eight years, to ensure the goals, policies, actions, mapping, and background content are consistent with State regulations and reflect the best available information for wildfire risks, climate adaptation and resiliency, and emergency evacuation routes for certain residential areas. Communities with local hazard mitigation plan updates after January 1, 2022, must also ensure their safety elements or local hazard mitigation plans include an assessment of evacuation routes and their capacity, safety, and viability as well as evacuation locations under a range of emergency scenarios.

For wildfire and evacuation purposes, a safety element must:

- Identify wildfire hazards with the latest fire severity zone maps from the Board of Forestry and Fire Protection, US Geological Survey, and other sources.
- Consider guidance given by the Office of Planning and Research's Fire Hazard Planning document.
- Demonstrate that the jurisdiction or contract agency and associated codes satisfactorily address adequate water supply, egress requirements, vegetation management, street signage, land use policies, and other criteria to protect from wildfires.

[4] California Public Utilities Commission, revised August 19, 2021, CPUC Fire-Threat Map, https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Poster%20Size.pdf, accessed August 31, 2022.

[5] California Public Utilities Commission, December 14, 2017, *Press Release: CPUC Adopts New Fire-Safety Regulations*, http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M201/K352/201352402.PDF, accessed August 31, 2022.

- Establish in the safety element (and other elements that must be consistent with it) a set of comprehensive goals, policies, and feasible implementation measures for protection of the community from unreasonable risks of wildfire.
- Identify evacuation-constrained residential parcels in hazard-prone areas.

Governor's Office of Planning and Research Fire Hazard Planning Technical Advisory

The Governor's Office of Planning and Research published the Fire Hazard Technical Advisory in 2015 and revised it in 2022 as a planning guide for addressing fire hazards, reducing risk, and increasing resilience across California's diverse communities and landscapes. The Fire Hazard Technical Advisory provides a range of goals, policies, and programs for fire hazard prevention and mitigation, disaster preparedness, and emergency response and recovery. The 2022 update includes specific land use strategies to reduce fire risk to buildings, infrastructure, and communities.

California Environmental Quality Act

In November 2022 the California Attorney General issued the Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act. This guidance document was designed to help lead agencies comply with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) when considering whether to approve projects in wildfire-prone areas. These areas are often in the WUI area—i.e., the area where the built environment meets or intermingles with the natural environment. This guidance provides suggestions for how best to comply with CEQA when analyzing and mitigating a proposed project's impacts on wildfire ignition risk, emergency access, and evacuation. The guidance is aimed at proposed development projects, such as residential, recreational, or commercial developments. The extent to which it applies varies by project based on project design and location. It does not impose additional requirements on local governments or alter any applicable laws or regulations but is intended to provide guidance on some of the issues, alternatives, and mitigation measures that should be considered during the environmental review process.

Regional Regulations

San Mateo – Santa Cruz Unit Strategic Fire Plan

CAL FIRE developed the *San Mateo – Santa Cruz Unit 2022 Strategic Fire Plan*, adopted in 2022, which covers an approximately 894-square-mile area and protects 572,160 acres of the SRA in both San Mateo and Santa Cruz Counties.[6] The goal of this plan is to outline resource needs in the area. This is done by creating a list of all the initial attack resources in the unit and expanding these resources in at-risk communities. There is also an education section in the plan that encourages teaching the community at formal events and meetings.

[6] California Department of Forestry and Fire Protection, updated May 2022, *San Mateo – Santa Cruz Unit: 2022 Strategic Fire Plan*, https://osfm.fire.ca.gov/media/lznihvwb/2022-san-mateo-santa-cruz-san-fransisco-unit-fire-plan.pdf, accessed August 17, 2022.

Santa Cruz San Mateo County Community Wildfire Protection Plan

The *Santa Cruz San Mateo County Community Wildfire Protection Plan* (CWPP) identifies the risks created by wildfire across the landscape and provides strategies to mitigate wildfire risks and restore healthier, more resilient ecosystems and communities. The 2018 Santa Cruz San Mateo County CWPP was developed through a collaborative effort with CAL FIRE's San Mateo and Santa Cruz Unit, the Resource Conservation District for San Mateo County and Santa Cruz County, the San Mateo Resource Conservation District, and the US Fish and Wildlife Service. The primary component of fire prevention in this plan is reducing structural ignitability through construction methods and materials, education, and defensible space. Additional methods include fuel reduction projects, shaded fuel breaks, and closing the gap on data needs for future vegetation management programs.

San Mateo County Multi-Jurisdictional Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The *San Mateo County Multi-Jurisdictional Hazard Mitigation Plan* (MJHMP), updated in 2021 in accordance with the federal Disaster Mitigation Action of 2000 (DMA 2000), provides an assessment of natural hazards in the county and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. The San Mateo Jurisdictional Annex of the MJHMP provides an assessment of hazards and vulnerabilities, and a set of mitigation actions for San Mateo specifically while considering the results from the countywide effort. In the context of an MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including wildfire. Mitigation actions related to wildfire in the San Mateo Jurisdictional Annex of the MJHMP include adopting the most recent California Building Standards Code, conducting annual inspections of businesses and multi-family dwellings for fire safety requirements, and adopting best practices for evacuation planning.

The MJHMP must be reviewed and approved by the Federal Emergency Management Agency (FEMA) every five years to maintain eligibility for disaster relief funding. As part of this process, the California Governor's Office of Emergency Services reviews all local hazard mitigation plans in accordance with DMA 2000 regulations and coordinates with local jurisdictions to ensure compliance with FEMA's Local Mitigation Plan Review Guide. As part of the proposed project, the MJHMP is adopted in its entirety into the proposed Safety Element by reference.

Local Regulations

San Mateo General Plan 2030

The City of San Mateo General Plan 2030 goals, policies, and actions that are relevant to wildfire are primarily in the Safety Element. As part of the proposed project, some existing General Plan goals, policies, and actions would be amended, substantially changed, or new policies would be added. Applicable goals, policies, and actions are identified and assessed for their effectiveness and potential to result in an adverse physical impact later in this chapter under Section 4.18.3, *Impact Discussion*.

City of San Mateo Municipal Code

The SMMC includes various directives pertaining to wildfire. The SMMC is organized by title, chapter, and section, and in some cases, articles. Most provisions related to wildfire impacts are included in Title 23, *Building and Construction*.

- Chapter 23.08, *Building Code*, adopts the 2022 CBC as the rules, regulations, and standards within the City as to all matters except as modified or amended in the SMMC.
- Chapter 23.28, *Fire Code*, adopts the 2022 edition of the CFC as the rules, regulations, and standards within the City as to all matters except as modified or amended in the SMMC. This Fire Code is adopted and enforced by the SMC Fire. As stated in Section 27.56.150, *Fire and Explosive Hazards*, fire and explosive hazards are subject of the fire prevention regulations in Chapter 23.28 of the SMMC.
- Chapter 23.33.010, *Floodplain Management,* provides development standards to minimize public and private losses due to flood conditions. This chapter of the SMMC provides provisions for flood hazard reduction, as well as alternative design standards for development in floodplains.
- Chapter 27.83, *Slope and Hillside Development Standards*, prohibits subdivisions that result in new parcels with slopes of twenty-five percent or more, unless specific conditions are met.

4.18.1.2 EXISTING CONDITIONS

Wildfire Background

The term “wildfire” refers to fires that usually result from the ignition of dry grass, brush, or timber. Historically, wildfires commonly occurred in steep or heavily vegetated areas, which makes suppression of the fire difficult. More recently, wildfires have been encroaching into more urban areas, that is, the WUI, threatening homes, businesses, and essential infrastructure. Though wildfires play an important role in the ecology of many natural habitats, risks to human safety and property increase as urban development moves into areas susceptible to wildfire hazards.

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Types of Wildfires

There are three basic types of wildland fires:[7]

- **Crown fires** burn trees to their tops; these are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff. These are the easiest fires to extinguish and cause the least damage to the forest. Brush and small trees enable surface fires to reach treetops and are thus referred to as *ladder fuels*.
- **Underground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly but can be difficult to extinguish.

Wildfires burn in many types of vegetation—forest, woodland, scrub (including chaparral and sage scrub), and grassland. Many species of native California plants are adapted to fire and habitats such as woodlands, chaparral, and grasslands can recover from fire. For example, some species of chaparral plants, such as ceanothus, require intense heat for germination and therefore have flammable resins on leaves and roots that can quickly sprouts up in burned areas.[8] Between 2010 and 2017, wildfires in California burned about 265,000 acres of forest land, 207,000 acres of scrub vegetation, 99,000 acres of grassland, 18,000 acres of desert vegetation, and 14,000 acres of other vegetation types.[9] Wildfires have been observed to be more frequent and growing in intensity over the past several years, with 4,304,379 acres and 2,569,386 acres burning in 2020 and 2021, respectively.[10]

Wildfire Causes

Although the term *wildfire* suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned.[11] The three most common types of causes of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.); arson; and equipment

[7] Natural Resources Canada, 2021, Fire Behavior, https://www.nrcan.gc.ca/forests/fire-insects-disturbances/fire/13145, accessed August 2, 2022.

[8] National Park Service, 2018, "Wildland Fire in Chaparral: California and Southwestern United States," https://www.nps.gov/articles/wildland-fire-in-chaparral.htm.

[9] State Board of Forestry and Fire Protection and California Department of Forestry and Fire Prevention, August 2018, *2018 Strategic Fire Plan for California*, https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf, accessed August 2, 2022.

[10] CAL FIRE, "Acres Burned vs Structures Destroyed," https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/images---misc/acres-burned-vs-structures-destroyed2022.jpg?rev=f043785e8027411caa4a6c8b176a4e26&hash=DDC50776FEF6C19D8619CA6337CF2481 , accessed May 30, 2023.

[11] Balch, Jennifer; Bradley, Bethany; Abatzoglou, John, et. al., January 2017, *Human-Started Wildfires Expand the Fire Niche Across the United States*, https://www.pnas.org/content/pnas/114/11/2946.full.pdf, accessed August 2, 2022.

use.[12,13] Lightning is a major natural cause of wildfire in the United States, with more than 40 percent of wildfires in the western United State caused by lightning between 1992 and 2015.[14,15]

Power lines can ignite wildfires several ways, including:[16]

- Downed lines: downed power lines can produce arcing that can cause the powerlines to spark and ignite vegetation.
- Vegetation contact: a branch contacting two conductors for a sufficient duration may ignite the branch; a tree falling on a line can cause a downed line.
- High winds and severe weather: conductors can slap together during high winds and severe weather, creating arcing of the powerlines and ejecting hot metal particles that can ignite flammable matter on the ground.
- Equipment failures: As circuit components deteriorate, they can arc and spark and thus ignite nearby flammable matter.

An analysis of US Forest Service wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires, and 90 percent of all wildfires, occurred within 0.5 mile of a road; and that about 61 percent of all wildfires and 55 percent of human-caused wildfires occurred within approximately 650 feet (200 meters) of a road.[17] The study concluded that the increase in human-caused ignition from new roads greatly outweighs the benefits of increased access for firefighters.

Wildfires ignite structures in three ways: burning embers landing on the structure or flammable material next to the structure, direct flame contact, and radiant heat from fire close to the structure. Embers are the most common cause of home ignition. Embers ignite structures by entering through attic vents, igniting flammable materials around the home (litter in the roof gutter; wood stacks; or wood fencing), or finding their way under roofing materials.[18]

[12] Pacific Biodiversity Institute, May 2007, *Roads and Wildfires,* http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed August 2, 2022.

[13] Miscellaneous human activities (unspecified) are ranked above equipment use in percentage of wildfires caused.

[14] Balch, Jennifer; Bradley, Bethany; Abatzoglou, John, et. al., January 2017, *Human-Started Wildfires Expand the Fire Niche Across the United States*, https://www.pnas.org/content/pnas/114/11/2946.full.pdf, accessed August 2, 2022.

[15] Cart, Julie. 2023. CAL MATTERS, "Lightning could spark more Califronai fire as world warms," https://calmatters.org/environment/2021/09/california-fires-lightning/, accessed July 10, 2023.

[16] Texas Wildfire Mitigation Project, 2014, How Do Power Lines Cause Wildfires? https://wildfiremitigation.tees.tamus.edu/faqs/how-power-lines-cause-wildfires, accessed August 2, 2022.

[17] Pacific Biodiversity Institute, May 2007, *Roads and Wildfires,* http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed August 2, 2022.

[18] California Chaparral Institute, Protecting Your Home from Fire, https://www.californiachaparral.org/fire/protecting-your-home/, accessed August 2, 2022.

WILDFIRE

CAL FIRE estimated in 2010 that there were about three million housing units in California in FHSZs and potentially at risk from wildland fire—that is, just over 20 percent of the total housing units in the state.[19]

According to CAL FIRE data, approximately 95 percent of structures seriously damaged in California wildfires from 2013 to 2020 took place in FHSZs in the SRA or LRA, or on federal lands.[20]

Wildland-Urban Interface

A WUI is any area where structures and other human developments meet or intermingle with wildland vegetative fuels – shrubs, trees, and grasses. Developments in the WUI exacerbate fire occurrence and fire spread in several ways:

- Increased numbers of people near and in wildland areas, creating more frequent human-caused wildfires.
- Wildfires become harder to fight due to simultaneous evacuation and firefighting resources diverted from containing the wildfire to protecting lives and homes.
- Letting natural fires burn becomes impossible; leading to buildup of fuel in brush and forested areas and overgrowth of grasslands, increasing wildfire hazard further.[21]

Secondary Effects

Secondary effects of wildfire include additional hazards such as landslides, poor air quality, and power outages. This section describes potential secondary hazards.

Post-fire landslide hazards include fast-moving, highly destructive debris flows that can occur in the years immediately after wildfires in response to high-intensity rainfall events, and flows that are generated over longer time periods that are accompanied by root decay and loss of soil strength. Post-fire debris flows are particularly hazardous because they can occur with little warning, exert great impulsive loads on objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Debris flows differ from mudflows in that debris flows are composed of larger particles.

Fires increase the potential for debris flows in two ways:[22]

- Fires may bake soil into a hard crust that repels water; and

[19] State Board of Forestry and Fire Protection and California Department of Forestry and Fire Prevention, August 2018, *2018 Strategic Fire Plan for California*, https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf, accessed August 2, 2022.

[20] CapRadio, December 2021, After years of delays, CalFire says updated and expanded wildfire hazard maps are on their way, https://www.capradio.org/articles/2021/12/20/after-years-of-delays-calfire-says-updated-and-expanded-wildfire-hazard-maps-are-on-their-way/, accessed August 2, 2022.

[21] Radeloff, Volker; Helmers, David; Kramer, H., et al., February 2018, *Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk*, https://www.pnas.org/content/pnas/115/13/3314.full.pdf, accessed August 2, 2022.

[22] United States Geological Survey, November 2018, New post-wildfire resource guide now available to help communities cope with flood and debris flow danger, https://www.usgs.gov/center-news/post-wildfire-playbook?qt-news_science_products=1#qt-news_science_products, accessed August 2, 2022.

- Destroying vegetation that would slow and absorb rainfall, and whose roots would help stabilize soil.

Post-fire debris flows are most common in the two years after a fire; they are usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned basins than from unburned areas. In southern California, as little as 0.3 inches of rainfall in 30 minutes has triggered debris flows, and any storm that has intensities greater than about 0.4 inches per hour can produce debris flows.[23] The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses. As discussed in Chapter 4.6, *Geology and Soils,* of this Draft EIR, landslides and debris flows have the potential to occur in the EIR Study Area, most notably on the steeper slopes that lie on the southwestern edge of the EIR Study Area. In these areas, landslides are commonly associated with slopes underlain with Franciscan sheared rock (mélange) and pre-existing landslide deposits.[24]

In addition to damaging natural environments, wildfires can injure and kill residents and firefighters as well as damage or destroy structures and personal property. Wildfires also deplete water reserves, down power lines, disrupt communication services, and block evacuation routes, which can isolate neighborhoods. Wildfires can also indirectly cause flooding if flood control facilities become inadequate to handle increases in stormwater runoff, sediment, and debris that are likely to be generated from burn scars.

Regionally, smoke from wildfires creates poor air quality that can last for days or weeks, depending on the scale of the wildfire and wind patterns. Smoke itself is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. Health risks from smoke inhalation are largely from microscopic particles ($PM_{2.5}$) that can penetrate the lungs and cause a range of health problems, including chronic heart and lung diseases. Exposure to particulate pollution is even linked to premature death. There are some populations that are more sensitive than others to smoke—for instance, people with heart or lung diseases, the elderly, children, people with diabetes, people with compromised immune systems, and pregnant women.[25] Through observations of wildfires, experts have determined that wildfires which produce large plumes of smoke can result in that smoke and ash being carried thousands of miles from the burn area of the wildfire. Therefore, air pollution is a major secondary risk from wildfires in the region.[26]

Wildfire in the EIR Study Area

The EIR Study Area is in both an LRA and SRA. As shown in Figure 4.18-1, *Fire Hazard Severity Zones*, portions along the southwestern boundary of the city are classified as VHFHSZ within an LRA. Figure

[23] United States Geological Survey, California Water Science Center, October 2018, Post-Fire Flooding and Debris Flow, https://ca.water.usgs.gov/wildfires/wildfires-debris-flow.html, accessed August 2, 2022.

[24] Association of Bay Area Governments, 2023, MTC/ABAG Hazard Viewer Map, Landslide Hazard (Rainfall Induced), https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8, accessed May 26, 2023.

[25] US Geological Survey, 2018, How Smoke Fires Can Affect Your Health, https://www.epa.gov/pm-pollution/how-smoke-fires-can-affect-your-health, accessed on April 12, 2023.

[26] Nasa Earth Observatory, August 2018, Smoky Skies in North America, https://earthobservatory.nasa.gov/images/92612/smoky-skies-in-north-america, accessed on April 12, 2023.

4.18-1 also shows lands in the Sphere of Influence south and west of the City Limits in the VHFHSZ of the SRA. The SRA land adjacent but outside of the EIR Study Area are classified as very high, high, and moderate along Interstate 280. As shown in Figure 4.18-2, *Proposed Land Use Designations in Very High Fire Hazard Severity Zones*, primary General Plan 2040 land use designations within the VHFHSZ include Residential Very Low, Residential Low, Residential Medium, Neighborhood Commercial, Parks/Open Space, Quasi-Public, and Utilities. Development type, density, and intensity would remain the same between the existing land uses and the proposed General Plan 2040 land use designations.

Similar to the CAL FIRE VFHSZ classification, portions along the southwestern boundary of the City Limits are classified as a Tier 2 CPUC High Fire Threat District, as shown in Figure 4.18-3, *CPUC High Fire Threat District*.

The SMC Fire WUI areas within and around the EIR Study Area are shown in Figure 4.18-4, *Wildland-Urban Interface*. The southern and western portions of the city are within Interface Risk and Wildland Risk areas. SMC Fire has separated WUI areas into Interface Risk and Wildland Risk categories. The interface zone contains dense housing or other structures next to vegetation, but has little wildland vegetation that can burn in a wildfire. The wildland zones have higher concentrations of wildland vegetation with fewer structures and may have limited access and/or steeper terrain that makes controlling wildfires more difficult. The wildland zones are in and near Laurelwood Park and in open space areas near the Peninsula Golf & Country Club. The interface zones border the park and open space areas and include residential neighborhoods, roadways, and other infrastructure throughout west and southwestern parts of San Mateo. General Plan Land Use Study Area 6 is within the WUI and contains executive office, medium density multi-family, low density multi-family, and neighborhood commercial land uses.

Factors Influencing Wildfire

Several factors influence wildfire conditions and facilitate the spread of wildfires, including weather conditions, fuels, topography, and climate change. Human actions are also the leading cause of wildfires in California, increasing the risk of wildfire devastating natural lands and communities. This section describes these five factors in the context of San Mateo.

Weather

The climate in San Mateo is generally referred to as "Mediterranean," with hot, dry summers and cool, wet winters. The weather is generally mild throughout the year. Due to the proximity of the Pacific Ocean and San Francisco Bay, fog and overcast conditions are common in the morning and evening.[27] The city receives an average of approximately 20 inches of precipitation annually.[28] Because the summer months are generally hot and dry, the risk of wildfires has historically been greatest in summer and fall.

[27] California Department of Forestry and Fire Protection, updated May 2022, *San Mateo – Santa Cruz Unit: 2022 Strategic Fire Plan*, https://osfm.fire.ca.gov/media/lznihvwb/2022-san-mateo-santa-cruz-san-fransisco-unit-fire-plan.pdf, accessed August 17, 2022.

[28] Cal-Adapt, 2022, Annual Averages, https://cal-adapt.org/tools/annual-averages/, accessed December 16, 2022.

Relative humidity is also an important fire-related weather factor. As humidity levels drop, the dry air causes vegetation moisture levels to decrease, thereby increasing the likelihood that plant material will readily ignite and burn; the risk of wildfire increases when lightning strikes occur during dry periods.

Wind is a major weather factor of wildfire behavior. Average wind speeds in San Mateo vary only slightly throughout the year, with the windier part of the year occurring from February to July with average wind speeds of 8.8 miles per hour and the calmer part of the year occurring from July to February with average wind speeds of 7.6 miles per hour.[29] Wind is most commonly from the west from February to November, with winds from the north from November to February.[30]

Diablo winds, which are a type of downslope, warm, northerly to northeasterly wind, flow over the Diablo Mountain range, and have had reported speeds of up to 100 miles per hour.[31] As wind speeds increase, the rate of fire spread, intensity, and ember spread potential also increases. Gusty and erratic wind conditions can cause a wildfire to spread irregularly, making it difficult to predict its path and effectively deploy fire suppression forces. Winds from the northeast in the late summer and fall compound with lower relative humidity, creating "red flag" conditions.[32] Diablo winds and low humidity are especially dangerous because low humidity can dry out trees and other fuel that may also be weakened by the winds. This can increase wildfire conditions in the EIR Study Area. Wind shifts can also occur suddenly due to temperature changes and interactions with steep slopes or hillsides, causing fires to spread unpredictably. Fall has historically been one of the most dangerous times for wildfire risk, as periods of very high temperatures, low humidity, and strong wind increases, causing "red flag" warnings and extreme fire danger.

Fuel

The qualities of vegetation that directly influence fire risk include fuel type and size, loading, arrangement, chemical composition, and dead and live fuel moisture, which contributes to the flammability characteristics of the vegetation. As described in Chapter 4.3, *Biological Resources*, of this Draft EIR, the majority of San Mateo is developed with urban uses. Non-urban land cover within the city includes hardwood forest/woodland and herbaceous land cover, which occur along the western edge of EIR Study Area and the southwestern portion of San Mateo. Grasslands and woodlands are highly flammable, particularly leaf litter that is left to accumulate, ultimately dries, and provides fuel for potential fires. The fire risk in grassland and woodland vegetation communities can be reduced through several tactics, primarily controlled burns and annual grazing.[33]

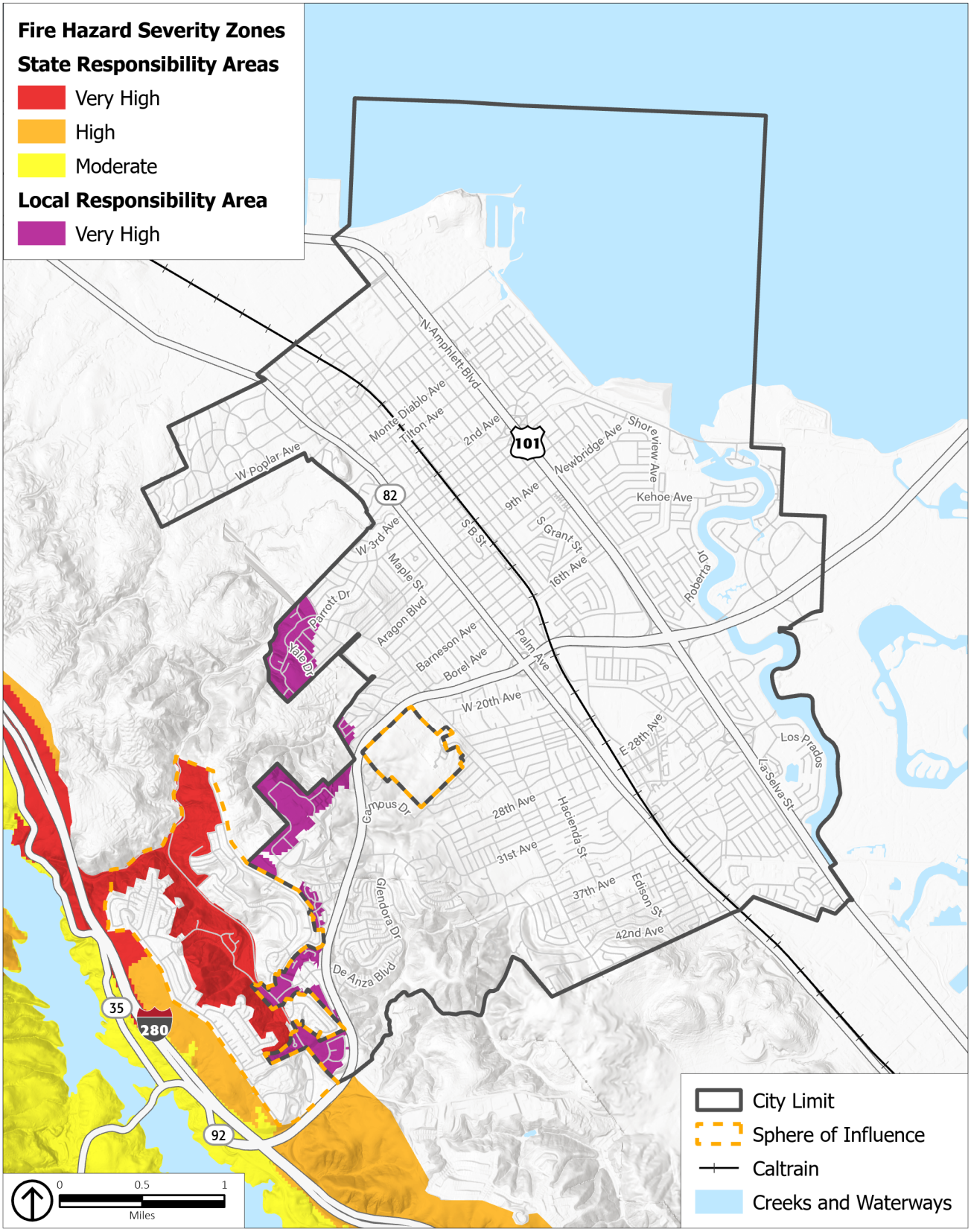
[29] Weatherspark, "Climate and Average Weather Year Round in San Mateo," https://weatherspark.com/y/560/Average-Weather-in-San-Mateo-California-United-States-Year-Round, access July 10, 2023.

[30] Weatherspark, "Climate and Average Weather Year Round in San Mateo," https://weatherspark.com/y/560/Average-Weather-in-San-Mateo-California-United-States-Year-Round, access July 10, 2023.

[31] Liu, YC., Di, P., Chen, SH. et al., November 28, 2020, *Climatology of diablo winds in Northern California and their relationships with large-scale climate variabilities*, https://doi.org/10.1007/s00382-020-05535-5, accessed December 16, 2022.

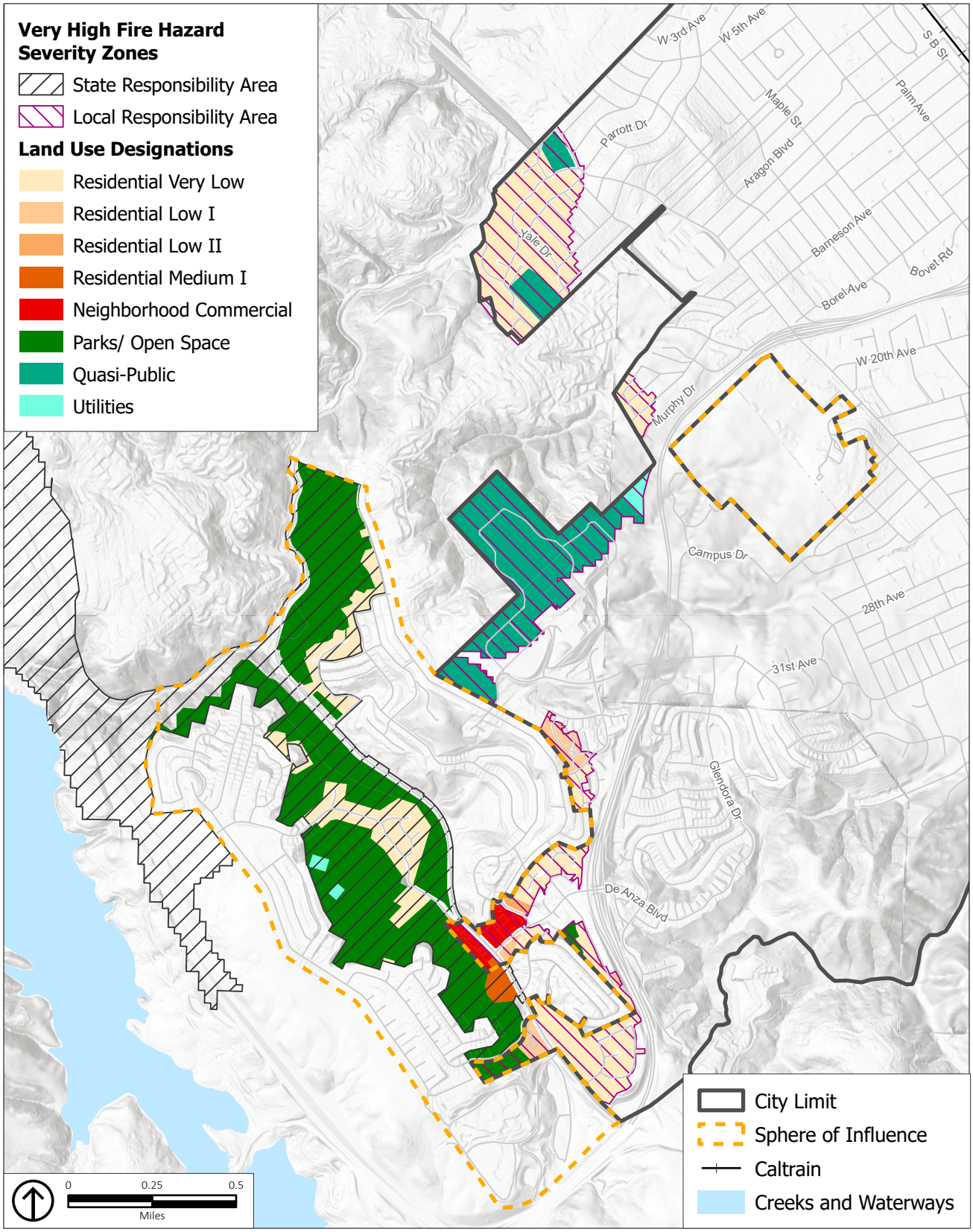
[32] The National Weather Service issues "red flag" weather day warnings when certain weather elements such as low relative humidity and strong winds could lead to increased wildfire risk.

[33] The Nature Conservancy, Restoring Fire to Native Grasslands, https://www.nature.org/en-us/about-us/where-we-work/united-states/minnesota/stories-in-minnesota/restoring-fire-to-native-grasslands/, accessed April 12, 2023.



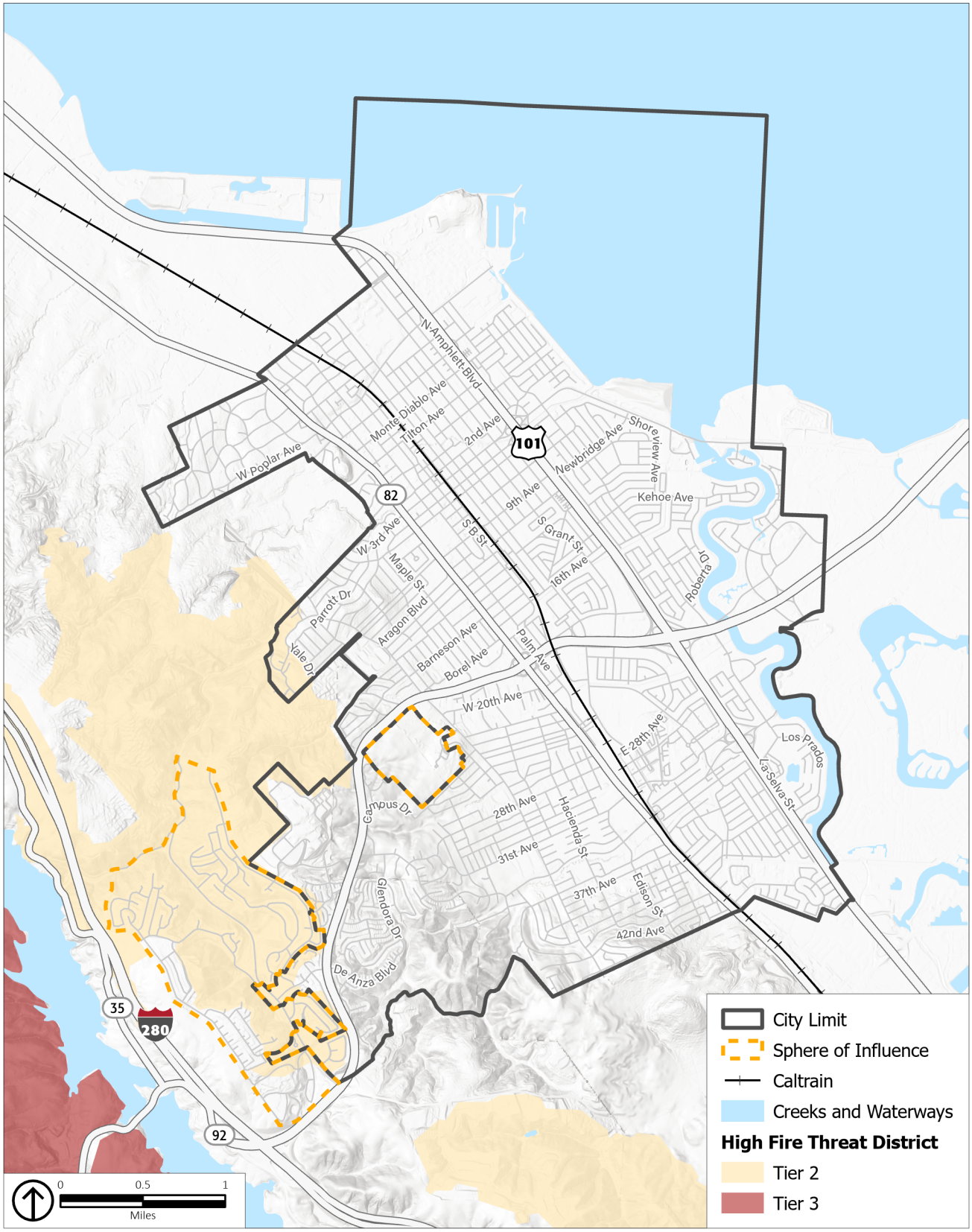
Source: CAL FIRE, 2022; PlaceWorks, 2023.

Figure 4.18-1
Fire Hazard Severity Zones



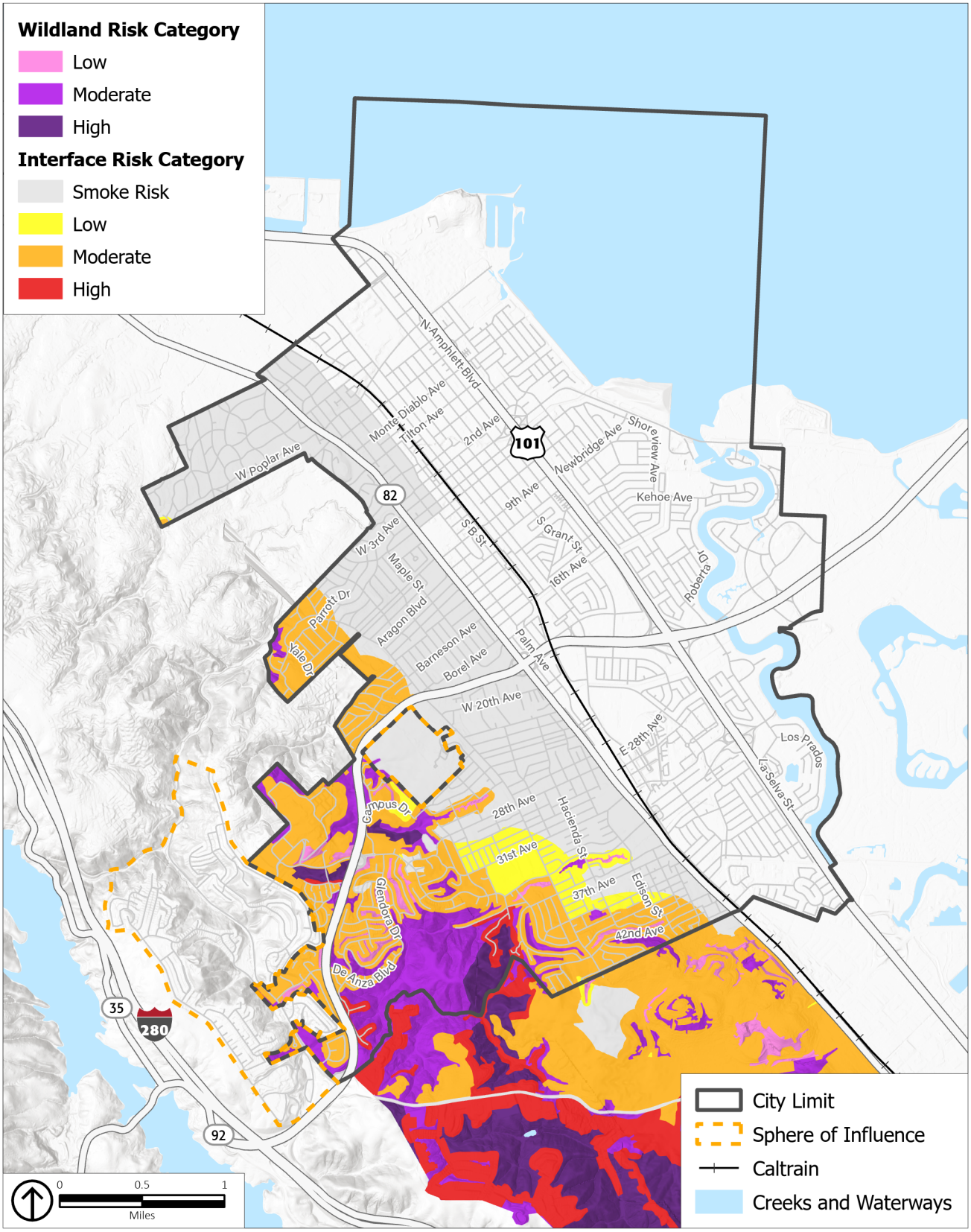
Source: CAL FIRE, 2022; City of San Mateo, 2022; PlaceWorks, 2023.

Figure 4.18-2
Proposed Land Use Designations in Very High Fire Hazard Severity Zones



Source: CPUC, 2022; PlaceWorks, 2023.

Figure 4.18-3
CPUC High Fire Threat District



Source: City of San Mateo, 2022; PlaceWorks, 2023.

Figure 4.18-4
Wildland Urban Interface

Topography

Slope is a measure of land steepness, and wildfire intensity and rate of spread increase as slope increases due to the tendency of heat from a fire to rise via convection. For example, as slope increases from 20 to 40 percent, flame heights can double and rates of fire spread can increase fourfold; from 40 to 60 percent, flame heights can become three times higher, and rates of spread can increase eightfold. The arrangement of vegetation throughout a hillside can also contribute to increased fire activity on slopes. As mentioned in Chapter 4.6, *Geology and Soils*, of this Draft EIR, the topography of the EIR Study Area ranges from flat near the San Francisco Bay to steeply sloped inland on the western edge of the EIR Study Area. The steeply sloped area largely coincides with the fire prone areas in the City Limits.

Climate Change

Climate change is likely to increase annual average temperatures in the City of San Mateo from a historical 67.3 degrees Fahrenheit (°F), to 71.3 °F by 2050 and 74.5°F by 2100.[34] This will likely create warmer temperatures earlier and later in the year. Precipitation levels are projected to vary over the course of the century, changing from a historical annual average of 19.9 inches per year, to an annual average of 22.3 inches by 2050 and an annual average of 24.5 inches by 2099.[35] Variations in precipitation patterns will also lead to an increase in frequency and intensity of heavy precipitation events, as well as prolonged periods of drought. The combination of extreme heat and droughts can cause soils and vegetation to dry out, creating more fuel for wildfires. These factors are expected to increase wildfire conditions, creating a risk of more frequent and intense wildfires. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more areas burned by fire may also lead to an increase in landslides and floods. Historically, an average of 8.3 acres have burned annually in the EIR Study Area.[36] Wildfires are projected to increase to an annual average in the EIR Study Area of 19.7 acres burned by 2050 and an annual average of 21.6 acres burned by 2100.[37]

Human Actions

Most wildfires are ignited by human action, the result of direct acts of arson, carelessness, or accidents. Many fires originate in populated areas along roads and around homes and are often the result of the careless disposal of cigarettes, mowing of dead grass, electricity equipment malfunction, use of equipment, or burning of debris. Recreation areas with increased human activity that are in fire-prone areas also increase the potential for wildfires.

Fire Protection Resources

SMC Fire officially commenced operations on January 13, 2019. The department was formed by the establishment of a Joint Powers Authority and represents the merger of fire departments in the cities of

[34] Cal-Adapt, 2023, Annual Averages, https://cal-adapt.org/tools/annual-averages/, accessed April 12, 2023.
[35] Cal-Adapt, 2023, Annual Averages, https://cal-adapt.org/tools/annual-averages/, accessed April 12, 2023.
[36] Cal-Adapt. 2023, Wildfire, https://cal-adapt.org/tools/wildfire, accessed April 12, 2023.
[37] Cal-Adapt. 2023, Wildfire, https://cal-adapt.org/tools/wildfire, accessed April 12, 2023.

Belmont, Foster City, and San Mateo.[38] Six of nine SMC Fire stations are located within the EIR Study Area: Station 21, Station 23, Station 24, Station 25, Station 26, and Station 27. Each fire station has one fire engine staffed by one Fire Captain and two Firefighters/Engineers. SMC Fire also staffs two 100-foot, tractor-drawn aerial ladder trucks, one out of Station 21 and the other out of Station 23, that respond to all major incidents in the community.[39] In 2021, SMC Fire's average response time was a little over 5 minutes and a majority of incidents were for rescues and emergency medical services.[40]

Emergency Response Planning

The SMC Fire Office of Emergency Services and the San Mateo Police Department are responsible for coordinating emergency services in the city. SMC Fire manages and maintains emergency plans and training of City staff and community members. The Fire Chief and City Managers are responsible for the operation of the City's Emergency Operations Center, and coordinate planning, training, and preparation for response to major emergencies and natural disasters.[41] When evacuations are necessary, SMC Fire decides when and where an evacuation will be made, and the San Mateo Police Department helps carry out the evacuation event.[42]

San Mateo uses the San Mateo County Alert Notification System (SMC Alert), and other notification systems, to reach the community and distribute emergency information and instructions before, during, and after a disaster. Notifications are provided through telephone calls, text messages, email notifications, and various social media platforms. Other emergency alert systems include the national Emergency Alert Systems (EAS), the California Governor's Office of Emergency Services (CalOES)-operated Emergency Digital Information System (EDIS). These systems are available in multiple languages.

San Mateo County is in Region II of the California Fire Service and Rescue Emergency Mutual Aid System, which extends one to two counties inland from the Pacific Coast and from Monterey County to the Oregon border.[43] In the event of a wildfire requiring firefighting resources from outside of San Mateo County, mutual aid is typically first lent from other fire agencies in the affected region.

[38] San Mateo Consolidated Fire Department, 2022, History, https://www.smcfire.org/about-us/history/, accessed August 2, 2022.

[39] San Mateo Consolidated Fire Department, 2022, Stations & Apparatus, https://www.smcfire.org/about-us/station-locations/, accessed August 2, 2022.

[40] San Mateo Consolidated Fire Department, 2021, *Annual Report: 2021 Edition*, https://www.smcfire.org/wp-content/uploads/2022/03/Annual-Report-2021.pdf, accessed August 2, 2022.

[41] San Mateo Consolidated Fire Department, 2022, Office of Emergency Services, https://www.smcfire.org/divisions/community-risk-reduction/office-of-emergency-services/, accessed August 8, 2022.

[42] J. Yoke (SMC Fire Emergency Services Manager), communications to PlaceWorks, SMC Fire Office of Emergency Services, May 25, 2023.

[43] San Mateo County Sheriff's Office, Homeland Security Division, Office of Emergency Services, May 2015, *County of San Mateo Emergency Operations Plan*, https://hsd.smcsheriff.com/sites/default/files/downloadables/1%20-%20Emergency%20Operations%20Plan.pdf, accessed August 2, 2022.

Evacuation and Access

Evacuation routes are designated roadways that allow many people to quickly leave an area due to a potential or imminent disaster. These routes should have sufficient capacity to accommodate the needs of the community, be safely and easily accessible, and allow people to travel far enough away to be safe from emergency conditions.

As shown in Figure 4.18-5, *Potential Evacuation Routes*, primary evacuation routes roads and highways that traverse the city include Highway 101, SR-82 (El Camino Real), SR-92, Alameda de las Pulgas, and Hillsdale Boulevard.

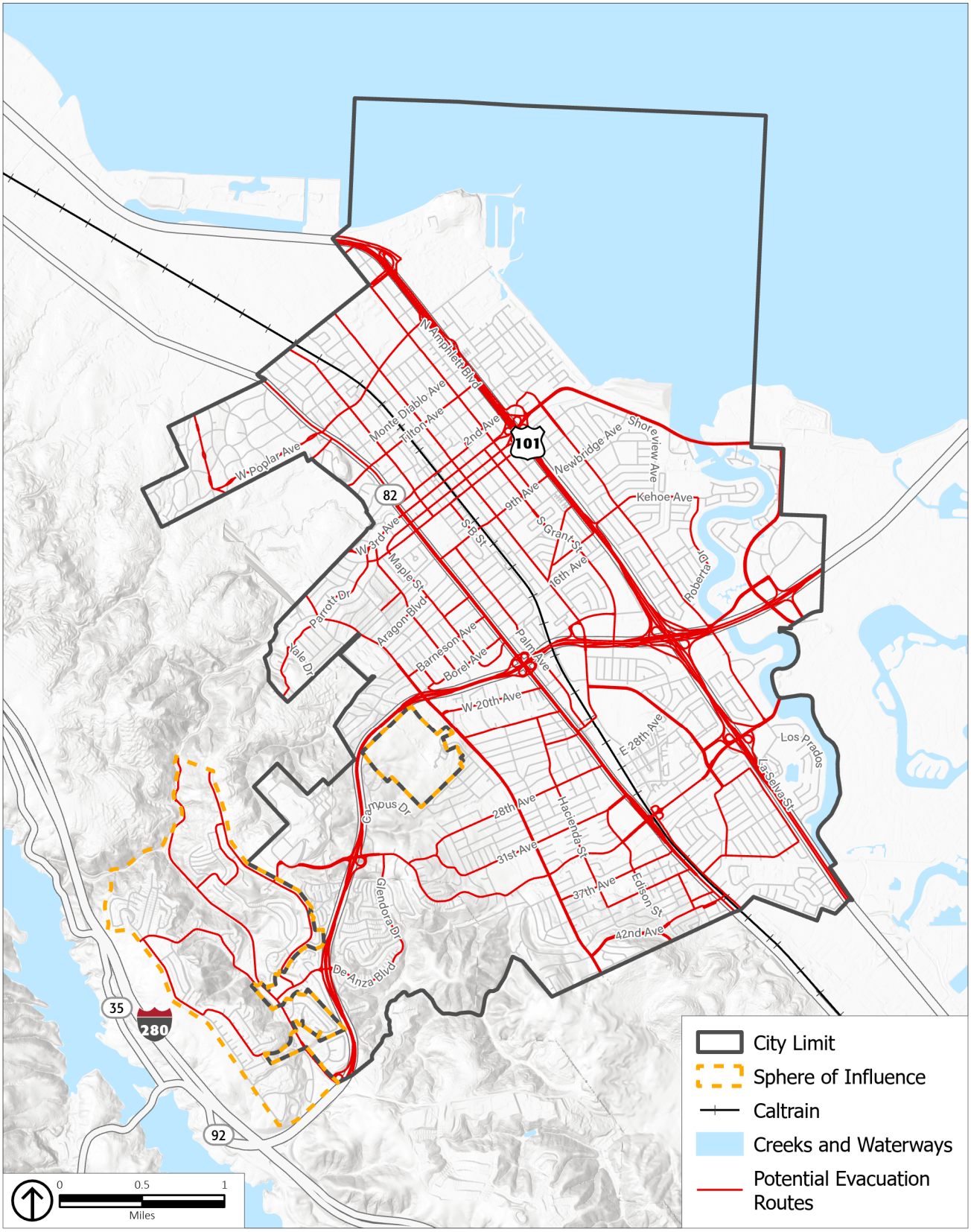
Several residential neighborhoods throughout the EIR Study Area have evacuation constraints, meaning only one road in and out of a neighborhood. Figure 4.18-6, *Evacuation-Constrained Areas,*[44] shows identified evacuation-constrained residential areas throughout the city, including sites within wildfire hazard zones in the western portion of the city, pursuant to California Government Code Section 65302(g)(5).

4.18.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant wildfire impact if it would:

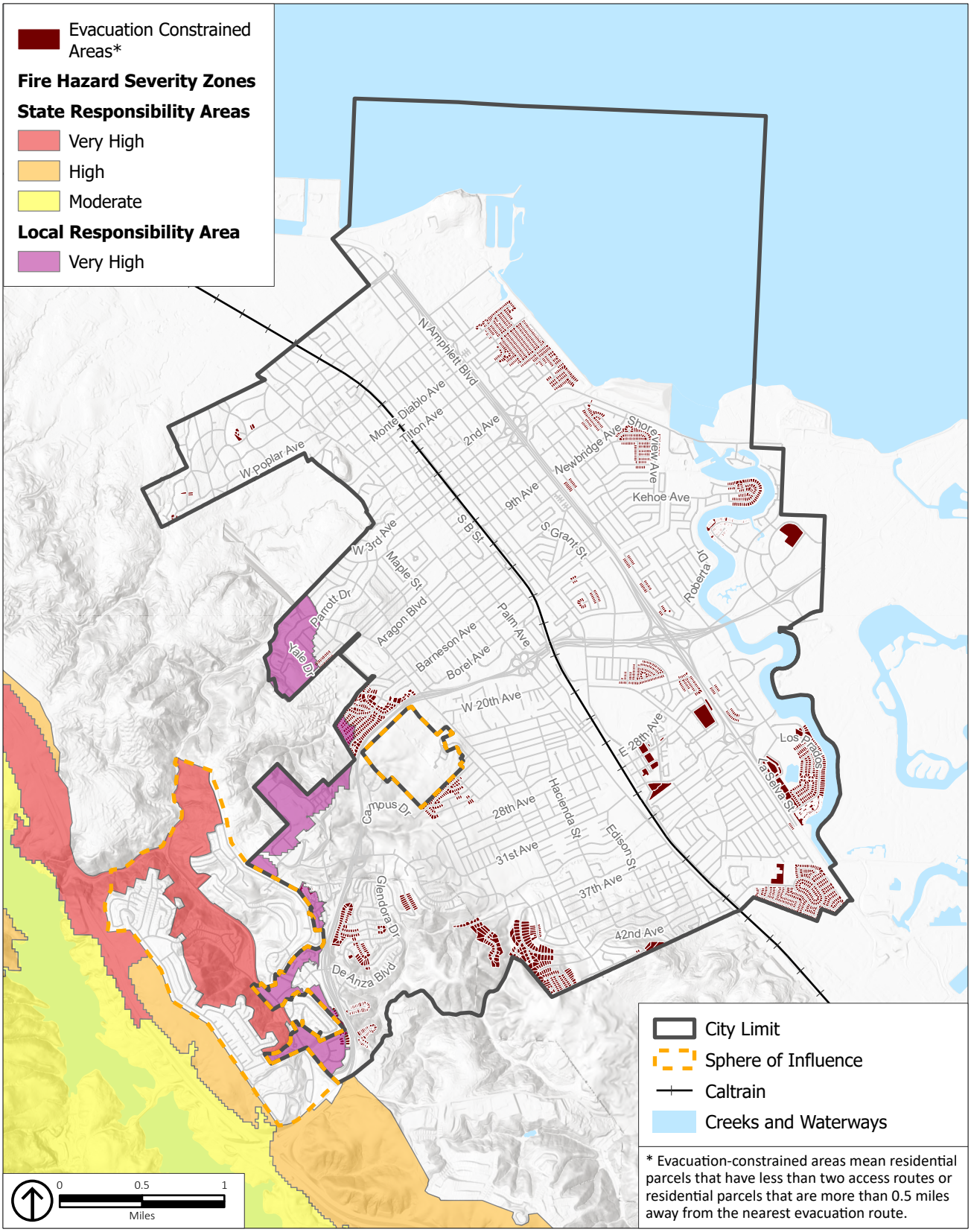
1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
5. In combination with past, present, and reasonably foreseeable projects, result in cumulative wildfire impacts in the area.

[44] Evacuation-constrained areas mean residential parcels that have less than two access routes or residential parcels that are more than 0.5 miles away from the nearest evacuation route. This map was created pursuant to SB 99 and California Government Code Section 65302(g)(5).



Source: PlaceWorks, 2023.

Figure 4.18-5
Potential Evacuation Routes



Source: PlaceWorks, 2023.

Figure 4.18-6
Evacuation-Constrained Areas

4.18.4 IMPACT DISCUSSION

WILD-1 The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

Adopted emergency response plans and emergency evacuation plans include those discussed under Section 4.18.1.1, *Regulatory Framework*, such as San Mateo County MJHMP. The proposed project could result in a significant impact if it would substantially impair the implementation of this plan. As discussed in Chapter 3, *Project Description*, of this Draft EIR, development under the proposed project would be focused within ten General Plan Land Use Study Areas. However, development may still occur on lands in the WUI or VHFHSZ in the western portion of the EIR Study Area.

Buildout under the proposed project would be located on properties that are already served by the existing roadway network and would not result in substantial changes to the circulation patterns or emergency access routes in the EIR Study Area. Additionally, future development under the proposed project would be required to integrate applicable emergency operation and evacuation requirements as necessary into development to continue its facilitation in evacuation for the people in wildfire-prone areas. Future development, regardless of whether it includes new development or redevelopment, is required to comply with adopted local, regional, and State plans and regulations addressing emergency access, response, and evacuation. Future development in the WUI or VHFHSZ would be required to comply with the VHFHSZ Fire Safe Regulations, the CBC, the CFC, and the SMMC, which have maximum requirements for lengths of single-access roads, minimum widths of roadways, and vegetation fuel management around roadways.

A temporary impact to emergency response and evacuation under the proposed project could occur from construction of future development projects if they were to result in temporary lane closures that would potentially alter evacuation routes. Potential future development in the EIR Study Area would be required to comply with applicable VHFHSZ Fire Safe Regulations, the CBC, the CFC, and the SMMC. These would be limited to the duration of the construction period, and direct impacts of construction would be evaluated during the permit review process by SMC Fire, and/or CAL FIRE. Review and approval of temporary lane closures, if needed, for future development projects in the EIR Study Area would ensure that that no inconsistencies with emergency evacuation plans would occur.

The Safety (S) Element of the proposed General Plan provides guidance to help protect the community and mitigate potential impacts from natural and human-caused hazards. The following General Plan 2040 goal, policies, and actions would serve to minimize potential adverse impacts related to emergency response and evacuation:

- **Goal S-1:** Minimize potential damage to life, environment, and property through timely, well-prepared, and well-coordinated emergency preparedness, response plans, and programs.
  - **Policy S 1.1: Emergency Readiness.** Maintain the City's emergency readiness and response capabilities, especially regarding hazardous materials spills, natural gas pipeline ruptures, fire hazards, wildland fire risk, earthquakes, pandemics, and flooding. Focus primarily on areas identified by the city as underserved and most vulnerable to loss of life and property due to

proximity to hazardous incidences, and work to ensure funding is available to these communities as a key component of emergency readiness.

- **Policy S 1.4: Multiple Egress Points.** Require new development to provide at least two points of emergency access (ingress and egress).
- **Policy S 1.5: Emergency Planning Document Coordination.** Pursue integration of the City's existing safety and emergency management documents with one another, including this Safety Element, the Local Hazard Mitigation Plan, and other related documents.
- **Policy S 1.8: Response Times.** When reviewing and analyzing roadway improvements, consider how emergency response times can be maintained and improved without reducing roadway user safety.
- **Policy S 1.10: Disaster Recovery.** Ensure that the City government continues to operate during and after hazard events and is able to provide resources and guidance to people and institutions in San Mateo for recovery and reconstruction following the end of the hazard event.
- **Policy S 1.11: Evacuation Education.** Include information about safe and effective evacuation as part of natural disaster awareness, prevention, and community education and training efforts. Share information about how to prepare for evacuations, potential evacuation routes and shelter locations, how to receive notifications, and other relevant topics.
- **Policy S 1.12: Inclusive Outreach.** Notify the community of potential hazards affecting their neighborhood. Use outreach and engagement methods that encourage broad representation and are culturally sensitive, particularly for equity priority communities.
- **Policy S 1.13: Emergency Training.** Conduct training for all City employees to ensure basic understanding of Disaster Service Worker responsibilities, the State Emergency Management System, National Incident Management System, and the Incident Command System.
- **Policy S 1.14: Multijurisdictional Cooperation.** Continue the development of local preparedness plans and multijurisdictional cooperation and communication for emergency situations.
- **Policy S 1.15: Emergency Preparedness.** Coordinate with San Mateo County, neighboring cities, and non-governmental partners to effectively prepare for and respond to hazards and natural disasters.
- **Action S 1.16: Evacuation Routes.** Maintain adequate evacuation routes as identified by arterial streets shown in the Circulation Element, Figure C-3 [of the proposed General Plan]. Evaluate each evacuation route's feasibility using a range of hazard criteria. Update this map on a regular basis to reflect changing conditions and State requirements for evacuation routes.
- **Action S 1.18: Automatic and Mutual-Aid Agreements.** Participate in mutual aid agreements with other local jurisdictions to provide coordinated regional responses, as necessary, to fire, flood, earthquake, critical incidents and other hazard events in San Mateo and the surrounding area. Work with local jurisdictions to share resources and develop regional plans to implement disaster mitigation and resilience strategies such as government continuity, emergency operations centers, communications redundancies.

- **Action S 1.20: Rebuilding Priorities.** Establish rebuilding priorities and procedures in the event of a major disaster to expedite reconstruction and enhance access to funding opportunities with special emphasis on equity priority communities that are more vulnerable to climate hazards.
- **Action S 1.22: Public Safety Outreach.** Develop a public safety education program to increase public awareness of potential hazards, City's emergency readiness and response program, and evacuation routes. Target public education programs to segments of the community that are most vulnerable to hazards and safety risks.
- **Action S 1.23: Community Training.** Collaborate with SMC Fire to provide emergency preparedness trainings to maintain and expand existing Community Emergency Response Teams (CERTs).
- **Action S 1.24: Emergency Infrastructure and Equipment.** Establish systems in place to ensure that traffic lights at major intersections, communications and radio infrastructure, and other critical infrastructure continues to function in the event of a localized power outage. Repair any damaged sets of infrastructure or equipment as needed to continue City operations.
- **Action S 1.26: Response Time Study.** Conduct a Response Time Study to provide a data-driven understanding of how future roadway safety improvements could impact emergency response times and use this information to adjust proposed roadway improvements as needed.
- **Action S 1.27: Emergency Notification System.** Develop an emergency notification system (e.g. SMC Alert and Nixle) for flood-prone neighborhoods and businesses before, during, and after a climate hazard event and assist in their evacuation and other support activities. This includes coordination with the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) on its early flood warning notification system.

- **Goal S-5:** Maintain adequate fire and life safety protection from wildland fires.
  - **Policy S 5.12: Secondary Access.** Explore secondary means of ingress and egress in areas with evacuation constraints, as shown in Figure S-2 [of the proposed General Plan], Evacuation-Constrained Areas, for existing subdivisions or developments of 30 units or more within a Very High Fire Hazard Severity Zone.
  - **Policy S 5.13: Emergency Access.** Require that roads, driveways, and other clearances around structures are located and designed to ensure emergency access.
  - **Policy S 5.14 Emergency Services.** Work with SMC Fire to provide fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies.

Implementation of these policies would increase the effectiveness of emergency operations and evacuation, and therefore would not impair or conflict with the applicable plans. The proposed General Plan goal, policies, and actions listed above would increase the effectiveness of the emergency operations and evacuation, and therefore the proposed project would not impair or conflict with the applicable plans and impacts related to emergency response and evacuation would be *less than significant*.

WILDFIRE

Significance without Mitigation: Less than significant.

WILD-2 The proposed project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

As discussed in Section 4.18.1.2, *Existing Conditions*, San Mateo is subject to strong northerly and northeasterly winds, also known as Diablo winds, in early fall through early spring. These winds have high speeds and can shift suddenly, and they are often accompanied by low humidity. They create dangerous conditions for starting and spreading wildfires during the drier months of the year, and they also spread wildfire smoke hazards, as can prevailing winds. Future development under the proposed project could exacerbate wildfire risks by adding people to wildfire-prone areas in the EIR Study Area and exposing people in the city and surrounding jurisdictions to pollutant concentrations from a wildfire. A wildfire combined with Diablo winds could expose residents in the area to the uncontrolled spread of wildfire.

As discussed in Section 4.18.1.2, *Existing Conditions*, the topography in wildfire-prone areas of San Mateo is steeply sloped. Construction of future development projects and activities under the proposed project in these areas may require grading and site preparation activities that could change the slope of a single parcel or site. Though most of the development would occur in the ten General Plan Land Use Study Areas, which are outside of wildfire prone areas, development and redevelopment in San Mateo could occur where topography is steeper.

Section 4.18.1.1, *Regulatory Framework*, describes plans, policies, regulations, and procedures that help to reduce wildfire risks. The 2018 Strategic Fire Plan for California, 2021 California Wildfire and Forest Resilience Action Plan, San Mateo County MJHMP, Santa Cruz San Mateo County Community Wildfire Protection Plan, and San Mateo – Santa Cruz Unit Strategic Plan are intended to reduce wildfire hazards and coordinate response to these hazards on a statewide and regional scale. In addition, the Bay Area Air Quality Management District provides air quality alerts, advisories, and an interactive online map to view current air quality conditions in the region.

All potential future development in San Mateo would be required to comply with the CBC, CFC, VHFHSZ Fire Safe Regulations, San Mateo Municipal Slope and Hillside Development Standards, and grading requirements, which include standards to minimize the ignition and spread of wildfire due to slopes.

The Safety (S) Element of the proposed General Plan provides guidance to help protect the community and mitigate potential impacts from natural and human-caused hazards. In addition to the proposed goal, policies, and actions identified in impact discussion WILD-1, the following General Plan 2040 goals, policies, and actions would minimize wildfire risks:

- **Goal S-1:** Minimize potential damage to life, environment, and property through timely, well-prepared, and well-coordinated emergency preparedness, response plans, and programs.

- **Policy S 1.2: Local Hazard Mitigation Plan.** Incorporate by reference the San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan, approved by the Federal Emergency Management Agency (FEMA) in 2021, along with any future updates or amendments, into this Safety Element in accordance with Government Code section 65302.6.

- **Goal S-2:** Take steps to protect the community from unreasonable risk to life and property caused by seismic and geologic hazards.
  - **Policy S 2.1: Geologic Hazards.** Require site-specific geotechnical and engineering studies, subject to the review and approval of the delegated City Engineer and Building Official, for development proposed on sites identified in Figure S-4 [of the proposed General Plan] as having moderate or high potential for ground failure. Permit development in areas of potential geologic hazards only where it can be demonstrated that the project will not be endangered by, nor contribute to, the hazardous condition on the site or on adjacent properties.
  - **Policy S 2.2: Landslides and Erosion Control.** Reduce landslides and erosion in existing and new development through continuing education of design professionals on mitigation strategies. Control measures shall retain natural topographic and physical features of the site, if feasible.
- **Goal S-5:** Maintain adequate fire and life safety protection from wildland fires.
  - **Policy 5.1: Very High Fire Hazard Severity Zones**. Avoid new residential development in Very High Fire Hazard Severity Zones, as shown on Figure S-14 [of the proposed General Plan], or the most current data available from CAL FIRE. Redevelopment or reconstruction of existing structures is allowed. Coordinate with San Mateo Consolidated Fire Department (SMC Fire) to ensure new construction of buildings or infrastructure within a Fire Hazard Severity Zone or Wildland-Urban Interface (WUI), as shown on Figures S-12 [of the proposed General Plan] and S-13 [of the proposed General Plan] or the most current data available from CAL FIRE, are in full compliance with applicable State and local regulations and meet the Very High Fire Hazard Severity Zone Fire Safe Regulations for road ingress and egress, fire equipment access, and adequate water supply.
  - **Policy S 5.2: Reconstruction of Development.** Require reconstruction projects or significant retrofits in a Fire Hazard Severity Zone and the Wildland-Urban Interface, as shown on Figures S-12 [of the proposed General Plan] and S-13 [of the proposed General Plan] or the most current data available from CAL FIRE, to be consistent with the California Building Standards Code, California Fire Code, and Very High Fire Hazard Severity Zone Fire Safe Regulations.
  - **Policy S 5.3: Wildland Fire Protection.** Require all development in and adjacent to designated Fire Hazard Severity Zone and Wildland-Urban Interface to prepare a fire protection plan for review and approval by SMC Fire prior to issuance of building permits and to provide access and defensible space in accordance with California codes and local ordinances.
  - **Policy S 5.9: Land Use Management for Fire Risks.** Maintain all City-owned public lands and work with private landowners to reduce fuel loads, establish appropriately placed fire breaks/defensible space, require long-term maintenance of fire hazard reduction projects, and educate all property owners in the city on proper landscape maintenance and firescaping standards to reduce the risk of fire hazards.

- **Policy S 5.11: Fire Safe Roads.** Coordinate with SMC Fire to evaluate new development or significant retrofits that have access on roadways that do not meet fire safe road and vegetation standards within the Wildfire-Urban Interface and/or Very High Fire Hazard Severity Zone and ensure that road standards and vegetation management occurs and is maintained.
- **Action S 5.15: Tree Maintenance.** Collaborate with SMC Fire to maintain City-owned trees in a manner that does not contribute to fire danger, in accordance with current Best Management Practices (BMPs).
- **Action S 5.16: Fire-Safe Education.** Work with SMC Fire and seek funding to develop a fire-safe education program that provides information and awareness to community members about defensive space, fire-resistant landscaping and construction, evacuation preparation, and other wildfire education topics.
- **Action S 5.18: Vegetation Management on City-Owned Land.** Coordinate with SMC Fire to continue conducting and providing long-term maintenance of vegetation management projects in City-owned parks and open spaces to prevent wildfire ignition and spread.
- **Action S 5.19: Reevaluation of Development Standards.** Reevaluate development standards for wildfire risk areas following major wildfire events and apply updated standards as needed to maintain high levels of wildfire protection.
- **Action S 5.20: Vegetation Management.** Coordinate with the SMC Fire and the FIRE SAFE San Mateo County to obtain funding for and conduct vegetation and fuel modification or management.

Proposed General Plan Policies S 2.1 and S 2.2 requires new development to have a site-specific geotechnical and engineering study conducted in areas of moderate or high potential for ground failure, as well as reducing landslides and erosion in existing and new development through ensuring implementation of geologic hazard mitigation measures. However, wildfire smoke could potentially travel up a slope during a wildfire. Therefore, even with existing regulatory requirements and proposed General Plan goals, policies, and actions, potential future development under the proposed project could expose people to the uncontrolled spread of wildfire or pollutant concentrations due to slope conditions within certain areas of the EIR Study Area.

Other factors, such as vegetation, have the potential to exacerbate wildfire risks. The grassland and woodland areas of western San Mateo are easily ignited, especially during late summer and fall when temperatures and winds are high and relative humidity is low. During these conditions, woodland vegetation can dry out, particularly in areas with unirrigated vegetation, becoming extremely flammable and increasing wildfire risks.

As described in Section 4.18.1.1, *Regulatory Framework*, the San Mateo County MJHMP and Santa Cruz San Mateo County Community Wildfire Protection Plan contain several vegetation management, fuel reduction, and fuel break projects to reduce the uncontrolled spread of wildfire due to vegetation. Additionally, as stated above, all potential future development in wildfire-prone areas in San Mateo would be required to comply with VHFHSZ Fire Safe Regulations, Public Resources Code Section 4291, the CFC, and the SMMC. These regulations have specific requirements for new and existing development

to create defensible space and extensive fuel reduction within 100 feet of a structure, an ember-resistant zone within 5 feet of a structure, and the overall maintenance of properties to reduce the risk of uncontrolled fires or the spread of fires to other properties.

The proposed General Plan goals, policies, and actions listed above would serve to reduce wildfire risks associated with vegetation. These policies would ensure that fire hazard reduction measures occur and are maintained, and that existing and new development in woodland and grassland areas would incorporate vegetation management measures. However, even with existing regulatory requirement and proposed Safety Element policies, potential future development under the proposed project could expose people to the uncontrolled spread of wildfire or pollutant concentrations due to factors such as vegetation.

Implementation of the proposed project could increase population, buildings, and infrastructure in wildfire prone areas. The introduction of additional humans (through new development and redevelopment) and human activities (including the use of construction equipment) to fire-prone areas inherently exacerbates existing fire hazards. Though proposed General Plan goals, policies, and actions and mandatory State wildfire hazard reduction measures reduce risks in wildfire-prone areas, impacts related to exacerbating the risk of pollutant concentrations from wildfire and the uncontrolled spread of wildfire would be reduced, but not to a less-than-significant level. The proposed General Plan contains policies that require existing development, new, and redevelopment projects to create and maintain fire safe vegetation around structures and roadways and enforcement of VHFHSZ Fire Safe Regulations. New development would also be required to prepare Fire Protection Plans. These policies provide the best wildfire hazard reduction measures available. Adherence to the above building practices, fire safety regulations, and vegetation fuel management requirements would reduce the potential for exacerbating wildfire risks. However, due to the programmatic nature of this analysis, the unknown details and potential impacts of specific future potential development projects under the proposed project, and the potential for future development to be in wildfire-prone areas, impacts are considered to be *significant*.

Impact WILD-2: Development under the proposed project would increase population, buildings, and infrastructure in wildfire-prone areas, thereby exacerbating wildfire risks.

Mitigation Measure: None available.

Significance with Mitigation: Significant and unavoidable. Policies identified in the proposed General Plan provide the best wildfire hazard reduction measures available. However, the only way to fully avoid the wildfire impact from implementation is to prohibit development in areas in VHFHSZs and the WUI. The majority of western San Mateo is in a VHFHSZ and/or the WUI. Prohibiting new development in this portion of San Mateo is not feasible or practical because the City has a responsibility to meet other, conflicting obligations, including increasing the number and type of housing available and allowing reconstruction of homes burned by wildfires. Therefore, this measure is considered and rejected and there are no feasible mitigation measures beyond the policies and plans described above. Due to potential unknown impacts from future development under the proposed project, impacts at the programmatic level would remain significant and unavoidable. This conclusion does not preclude a finding of less-than-significant impacts at the project level.

WILDFIRE

WILD-3 The proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Buildout and implementation of the proposed project could require the installation of new roadways, fuel breaks, emergency water sources, power lines, and other utilities to serve future potential development in the City of San Mateo.

- **Roadways.** The proposed project does not include new roadways in VHFHSZ. Potential future development under the proposed project could, however, create new or expanded roadways in the southwest, fire-prone areas of San Mateo, including converting unpaved roads to paved access roads, developing roadways to new development, and expanding existing roads to accommodate evacuation and multi-modal forms of transportation. State VHFHSZ Fire Safe Regulations would prevent structures from being placed within 30 feet of a roadway, reducing the potential for new roadways to exacerbate wildfire risks, reducing the potential for new roadways to exacerbate wildfire risks.
- **Fuel Breaks**. As discussed in impact discussion WILD-2, the Safety (S) Element of the proposed General Plan includes Policies S 5.1 and S 5.9 which require development in and adjacent to designated wildland fire areas to provide defensible space and the City to establish appropriately placed fire breaks and defensible space on City-owned public lands.
- **Emergency Water Sources**. The Safety (S) of the proposed General Plan includes the following goal and policies to minimize wildfire risks associated with emergency water resources:
  - **Goal S-5:** Maintain adequate fire and life safety protection from wildland fires.
    - **Policy S 5.7: Peakload Water Supply.** Ensure that the California Water Service Company and the Estero Municipal Improvement District provide and maintain a water supply and distribution system that provides an adequate static pressure to deliver the minimum fire hydrant flow to all areas of the city, except where a lesser flow is acceptable, as determined by SMC Fire.
- **Power Lines**. Potential future development under the proposed project could require electrical line installations and connections to provide power to buildings and infrastructure. The Public Services and Facilities (PSF) Element of the proposed General Plan includes the following goal, policies, and actions to minimize wildfire risks associated with power lines:
  - **Goal PSF-4:** Promote the development of a clean energy supply, energy-efficient technology, and telecommunications facilities that benefit all members of the community.
    - **Policy PSF 4.7: Service Improvement and Expansion.** Seek to ensure adequate energy and communication systems to serve existing and future needs while minimizing impacts on existing and future residents by requiring new development to underground power lines and provide underground connections, when feasible, and prioritizing cellular coverage for all areas of the city while appropriately minimizing visual impacts of cellular facilities, antennas, and equipment shelters.

- **Action PSF 4.13: Utility Network Undergrounding.** Underground existing electrical and communication transmission and distribution lines in the public right-of-way as funds permit.
- **Action PSF 4.14: Utility Undergrounding Requirements.** Amend the San Mateo Municipal Code to require new private development to underground utilities and service connections on and adjacent to the site and to install and maintain signs, streetlights, and street landscaping adjacent to sidewalks.

Additionally, the CPUC requires maintenance of vegetation around power lines, strict wire-to-wire clearances, annual inspections of aboveground power lines, and the preparation of fire prevention plans for aboveground power lines in high fire-threat districts. These measures would reduce the wildfire risks associated with the installation and maintenance of power lines.

- **Other Utilities**. Potential future development under the proposed project could also require the installation and maintenance of water systems, sewer systems, internet infrastructure, and stormwater systems in wildfire-prone areas.

These types of improvements would involve temporary construction and result in changes to the existing built environment. Any development or redevelopment in the wildfire-prone areas of southwestern San Mateo would also be required to comply with building and design standards in the CBC and CFC, which include provisions for fire-resistant building materials, the clearance of debris, and fire safety requirements during demolition and construction activities. PRC Section 4291 also requires vegetation around buildings or structures to maintain defensible space within 100 feet of a structure and an ember-resistant zone within 5 feet of a structure. These measures, along with the other applicable State regulations and the proposed General Plan goals, policies, and actions discussed above, would minimize wildfire risks associated with the installation and maintenance of infrastructure. Therefore, impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

WILD-4 The proposed project would not 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.

Wildfires, such as the 2020 CZU Lightning Complex Fire, can create favorable conditions for other hazards, such as flooding and landslides during the rainy season. Wildfires on hillsides can burn the vegetation that stabilizes the slope and create hydrophobic conditions that prevent the ground from absorbing water. This can lead to landslides, debris flows, and flooding. The proposed project would result in a significant impact if—due to slopes, drainage patterns, or postfire slope instability—it would expose people or structures to significant risks from landsides, debris flows, or flooding.

As discussed in Chapter 4.9, *Hydrology and Water Quality*, of this Draft EIR, parts of San Mateo are in the 100-year and 500-year floodplains. As shown in Figure 4.9-2, *Potential Flood Hazards*, and Figure 4.9-3, *2019 Revised Floodplain Map of San Mateo,* in Chapter 4.9, floodplains are primarily in the northern and

eastern portions of the city along the San Francisco Bay and Seal Slough. As discussed in Chapter 4.6, *Geology and Soils*, of this Draft EIR, slopes in the southwestern part of the city are the areas with landslide susceptibility and coincide with VHFHSZs. These areas are considered susceptible to landslides from precipitation and other causes. This overlap could cause areas outside of a flood hazard or landslide-susceptible zone to be affected by runoff, post-fire slope instability, or drainages changes following a wildfire.

The Safety (S) Element of the proposed General Plan provides guidance to help protect the community and mitigate potential impacts from natural and human-caused hazard. In addition to the proposed goals, policies, and actions identified in impact discussion WILD-2, the following General Plan 2040 goals, policies, and actions would serve to minimize potential adverse impacts related to postfire slope instability or drainage changes upstream:

- **Goal LU-2:** Balance well-designed development and thoughtful preservation.
  - **Policy LU 2.1: Development Intensity/Density.** Regulate development density/intensity to recognize natural environmental constraints, such as flood plains, earthquake faults, debris flow areas and other hazards, availability of urban services and transportation and circulation constraints.
- **Goal CD-2:** Minimize the impact of hillside development on the natural environment and public safety.
  - **Policy CD 2.1: Hillside Development Principles**. Require hillside development to minimize impacts by preserving the existing topography, limiting grading or cuts and fills, clustering development, and identifying opportunities for restoration or re-wilding. Limit development on steep hillsides with a 30 percent or higher slope.
  - **Policy CD 2.2: Minimal Impacts**. Require new development to preserve natural topographic forms and to minimize adverse impacts on vegetation, water, soil stability, and wildlife resources.
- **Goal S-3:** Protect the community from unreasonable risk to life and property caused by flood hazards.
  - **Policy S 3.1: Development within Floodplains.** Protect new development and substantial retrofits within a floodplain by requiring the lowest finish floor elevation to be three feet above the applicable floodwater elevation or by incorporating other flood-proofing measures consistent with Federal Emergency Management Agency (FEMA) regulations, OneShoreline guidance, the City's Floodplain Management Ordinance and other City policy documents.
  - **Action S 3.3: Flood Risk Mapping Data.** Regularly update mapping data pertaining to the 100-year and 500-year floodplains, dams, and levee failure as information becomes available.
  - **Action S 3.4: Community Rating System**. Undertake efforts that increase the City's rating under FEMA's Community Rating System, such as expanding and improving Geographic Information System (GIS) mapping capacity, developing a flood early warning system, and creating a Flood Emergency Action Plan.

- **Action S 3.5: Early Flood Warning.** Collaborate with OneShoreline to provide early flood warning for flood-prone areas of the city through OneShoreline's stream monitoring station and notification system.

- **Goal S-5:** Maintain adequate fire and life safety protection from wildland fires.
  - **Policy S 5.4: Hillside Vegetation Stability.** Stabilize, and as feasible re-vegetate, burned slopes following a wildfire event to reduce landslide and debris flows risk.

Furthermore, all new development in the EIR Study Area is required to comply with State and local regulations, such as applicable requirements of the CBC and SMMC, both of which contain provisions to reduce flooding and landslides in existing and new development. For example, Section 1803 of the 2022 California Building Code requires a geotechnical investigation that must assess existing landslide susceptibility on a project site. As described in Section 4.18.1.1, *Regulatory Framework*, SMMC Section 27.83 and Section 23.33.010 provide regulations for existing and new development to reduce landslide and flooding potential downslope or downstream.

New development complying with the SMMC and the proposed General Plan goals, policies, and actions listed above would not expose people or structures to downslope landslides or downstream flooding due to postfire hazards. Furthermore, as identified in impact discussions WILD-1 and WILD-2, development under the proposed project must also comply with best management practices regarding wildfire prevention, action, and recovery as outlined in the San Mateo – Santa Cruz Unit Strategic Fire Plan, and Santa Cruz San Mateo County Community Wildfire Protection Plan. All future development, regardless of the location, is required to comply with adopted local, regional, and State plans and regulations addressing wildfire prevention, which would minimize risks of postfire hazards. Compliance with these policies and regulatory requirements would ensure that impacts from postfire instability would be *less than significant*.

Significance without Mitigation: Less than significant.

WILD-5 The proposed project would, in combination with past, present, and reasonably foreseeable projects, result in cumulative wildfire impacts in the area.

The cumulative setting includes potential future development in the City of San Mateo and the surrounding region. Future development under the proposed project would not substantially impair an adopted emergency response plan for emergency evacuation plan; would not exacerbate wildfire risks due to the installation or maintenance of infrastructure; and would not cause downslope or downstream post-fire flooding or landslide hazards. Cumulative development in adjacent jurisdictions would be subject to the same State regulations applicable to future projects under the proposed project. Although federal lands would not be subject to State regulations, they would still be subject to the National Cohesive Wildfire Management Strategy and the NFPA Standards.

However, the proposed project would result in significant and unavoidable impacts where it would potentially expose project occupants to pollutant concentrations from a wildfire or uncontrolled spread

of a wildfire due to slope, prevailing winds, or other factors, as described in impact discussion WILD-2. The addition of other proposed development projects in adjacent jurisdictions in similar environments that are sloped and contain high fuel loads would have the potential to contribute to cumulative wildfire risks. These projects would have the potential to result in significant environmental impacts and they could also potentially expose project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors. These would potentially result in cumulatively considerable impacts when taken into consideration with the proposed project. In general, the increase of potential development projects within the SRA in the Sphere of Influence and unincorporated County lands outside of the EIR Study Area, along with the VHFHSZ or WUI would result in a cumulatively significant impact, due to the inherent risk of any increased human activity in these areas. Therefore, cumulative wildfire impacts would be considered *significant*.

Impact WILD-5: Potential development under the proposed project could, in combination with other surrounding and future projects in the State Responsibility Areas, Very High Fire Hazard Severity Zones, or Wildland Urban Interface, result in cumulative impacts associated with the exposure of project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors.

Mitigation Measure: None available.

Significance without Mitigation: Significant and unavoidable. Similar to Impact HAZ-7, HAZ-8, and WILD-2, the only way to fully avoid the cumulative wildfire impact is to prohibit development in the SRA, VHFHSZs, and WUI throughout the region. As a full prohibition of development in these areas is not feasible in the region, this impact is significant and unavoidable.