Chapter 5

PUBLIC SAFETY

ROSEMEAD GENERAL PLAN

The Public Safety Element identifies and addresses the natural and human-caused hazards that may influence the development, redevelopment, and utilization of properties in Rosemead. Foremost, this Element identifies the ways to reduce the risk of property damage, injuries, or loss of life in the event of a natural or human-caused disaster.

According to the Governor's Office of Planning and Research, the Safety Element works to "reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other hazards." This Public Safety Element sets forth policies designed to minimize threats from natural and human-caused hazards. By implementing the directives of the Public Safety Element, the City intends to use available planning methods in order to: 1) minimize risk exposure, 2) provide timely emergency service delivery to all residents and businesses when the need arises, and 3) maintain an optimal environment for personal security. While population growth and changing needs within the community will continue to place demand on resources, Rosemead is committed to enhancing the safety of neighborhoods, business districts, and public places.

The Public Safety Element is one of the required General Plan elements. The City emphasizes a proactive approach to planning, which involves identifying and avoiding or mitigating hazards

present in the environment that may adversely affect property and threaten lives. Government Code Section 65302(g) and Section 65302(f) identify several issues to consider in such planning efforts, as does California Health and Safety Code Section 56050.1. In Rosemead, safety issues of concern include:

- Geologic hazards, including (non-seismic) slope failures; collapsible, compressible or expansive soils subsidence due to groundwater pumping; and shallow ground water.
- Seismic (earthquake) hazards, including surface fault rupture, ground shaking, liquefaction effects, and earthquake-induced slope instabilities;
- Flooding (inundation) from extreme weather and seismically induced dam failure;
- Urban fires and smoke from wildfires in the region;
- Presence of hazardous materials; and
- Climate change hazards.

A requirement to address climate change in safety elements was added through Senate Bill 379 in 2015, which specifies that local jurisdictions conduct a vulnerability assessment to identify the risks of climate change, and develop a set of goals, policies, and objectives to address the identified risks. To meet this requirement, the City relied on the analysis included in the Southern California Adaptation Planning Guide (SoCal APG) prepared by the Southern California Association of Governments (SCAG, 2020), the City's adopted Hazard Mitigation Plan (2018), and the Climate Vulnerability Assessment (CVA) currently being prepared by the County of Los Angeles. The CVA provides a countywide analysis of the effects of climate change hazards that all 88 cities in Los Angeles County can access and use. Climate vulnerability findings along with the City's climate adaptation goals, policies, and actions are provided in this Public Safety Element.

Fire safety is of growing importance in California. As a result, State law requires that general plans in high-risk areas, generally at the wildland urban interface, address wildfire risks. In addition, SB 1035 (2018) requires regular updates to the Safety Element chapter of the General Plan to address new information regarding flood and fire hazards, as well as climate change adaptation and resilience. State law also requires local governments to identify and evaluate evacuation routes (AB 747, 2019) and to identify residential developments in hazard areas that do not have at least two emergency evacuation routes (SB 99, 2019). The City of Rosemead does not have very high fire severity zones but is still impacted by wildfires in the region due to smoke and possible disruptions to transportation, electricity, water emergency response, and other systems.

Environmental justice is another new topic that must be addressed in general plans. In 2016, Senate Bill 1000 was signed

into law which requires local jurisdictions that have disadvantaged communities to either add a new element or incorporate environmental justice policies into their general plans. Environmental justice addresses inequitable exposure to pollutants and other impacts, and the lack of infrastructure and amenities to equitably serve vulnerable populations. "Vulnerable populations" include disadvantaged communities based on geographic, socioeconomic, public health and environmental hazards criteria. "Equity" means that all people are justly and fairly treated according to their circumstances. The City of Rosemead has disadvantaged communities and has chosen to incorporate its environmental justice policies into its Public Safety Element. However, many environmental justice policies are already addressed throughout the General Plan, as summarized in **Table 5-2**.

Geologic, Seismic, and Flooding Conditions

Introduction and General Setting

The information on the geologic, seismic, and flooding conditions within and around the City are summarized briefly in this section. Information is derived from readily available technical documents that can be referred to for more details as necessary to evaluate and analyze individual projects; additional technical background information is presented in Appendix A. Issues due to hazards arising from the geologic, seismic, and dam failure-induced flooding conditions in the City are discussed in a following section.

A geologic, seismic, or dam failure-induced flooding event that would impact a portion of the City has the potential to affect persons and property in the City. These issues and their potential impacts are the basis for establishing the goals and policies to protect lives and property. Discussion is also provided regarding the buildings and infrastructure most important to the citizens and City personnel in the event earthquake effects are particularly severe in the City.

The technical issues summarized in Appendix A must be taken into account as the City of Rosemead expands, fills in, and redevelops. Existing building codes and land use planning requirements can address most of the hazards inherent in the geologic setting of the City. As newer, more accurate geologic, soils, and seismic information has been developed since the last General Plan update, it is now possible to identify many of the areas in the City vulnerable to natural hazards, and account for the hazards in future development. Sources for this information range

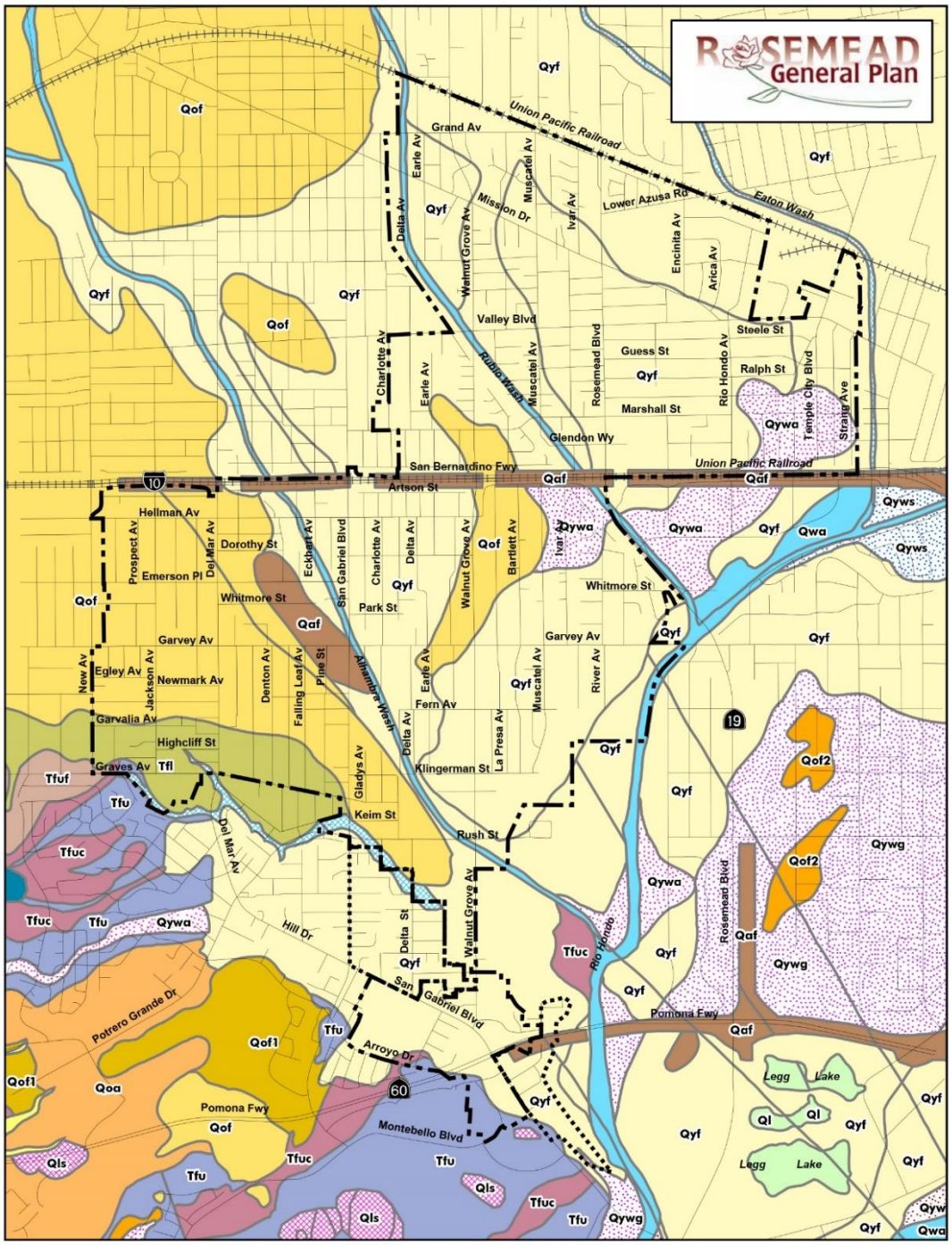
from generalized regional reports and maps (including the previous General Plan Seismic Element) to project-specific geotechnical and engineering geology reports.

Geology and Soils

Geologic units at and near the ground surface in Rosemead are presented by Yerkes and Campbell (2005; **Figure 5-1**). The southernmost portion of the City abuts the Montebello Hills, which consist of sandstone, siltstone and conglomerate of the Fernando formation (map symbol Tf). The remainder of the City, north of the hills, is underlain by older alluvium (Qof, Qof1, and Qoa) and younger alluvial fan deposits (Qyf) shed from the surrounding hills, various young stream wash deposits (Qw, Qyw), landslide deposits (Qls) associated with the Fernando Formation, and artificial fill (Qaf) along the freeways and in at least one large tract development. These geologic units have physical characteristics that can produce hazards such as landslides, mudslides, collapsible or expansive soils, subsidence, or shallow groundwater. Appendix A provides more detailed descriptions of the geologic units (see Appendix A **Table 5-1**) and the hazards associated with the unit characteristics of these geologic units.

Seismicity/Earthquake Groundshaking, and Faults

Figure 5-2 (Shaw et al., 2002; California Geological Survey [CGS, formerly the California Division of Mines and Geology- CDMG], 2005) shows the regional faults that would impact the City should a moderate to large earthquake be generated on any of these seismic sources within about 25 miles of Rosemead. Earthquakes resulting in ground shaking characterized by greater than 20 percent the acceleration of gravity (g) can be expected on the Whittier (magnitude [M] 6.8), Puente Hills (M 7.1), Upper Elysian Park (M 6.4), Raymond (M 6.5), Sierra Madre (M 7.2), Verdugo (M 6.9), San Jose (M 6.4), Hollywood (M 6.4), and Clamshell-Sawpit (M 6.5) faults. The only known active fault at the surface within the City (**Figure 5-3**; CDMG, 1991) is the Alhambra Wash fault (zoned as an Alquist-Priolo Earthquake Fault Zone [APEFZ]). However, there are several other unnamed fault segments or suspected faults of unknown age of last movement mapped across the City (**Figure 5-4**; Treiman, 1991; Yeats, 2004). Potential seismic/earthquake hazards include surface fault rupture, ground shaking, earthquake-induced liquefaction (including lateral spreading and ground failure) and landslides (shown on **Figure 5-5**; CDMG, 1999). The City is also underlain by two buried thrust faults that, although they do not reach the ground surface, have the potential to cause strong ground shaking in Rosemead. These hazards and the local earthquake faults are discussed further in Appendix A.



For more information of the Geologic Units within the City refer to Table A-1.

	Qaf		Qof		Qyf		Qyws		Reservoir
	Ql		Qof1		Qyfg		Tfl		Rosemead City Boundary
	Qls		Qof2		Qyw		Tfu		Sphere of Influence Boundary
	Qls?		Qw		Qywa		Tfuc		Major Roads
	Qoa		Qwa		Qywg		Tfuf		Railroad

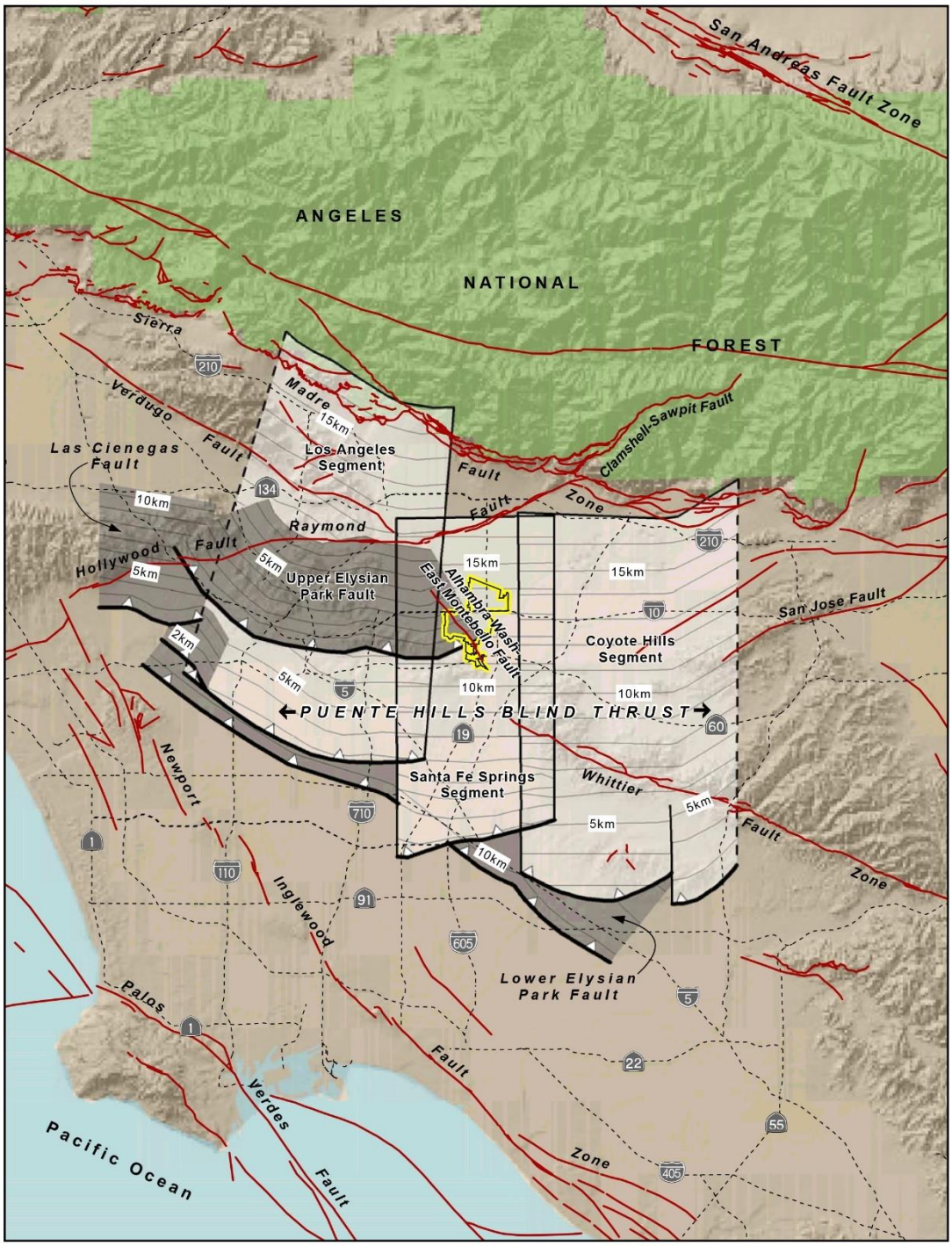
Source: Yerkes and Campbell, 2005; CDMG, 1998, SHZR 024, Plate 2.1.

0 1,000 2,000 3,000 4,000 Feet

Figure 5-1
City Area Geology Map

City of Rosemead
General Plan Update

June 2008



Rosemead City Boundary

Primary Road

Potential Earthquake Faults (See Table 5-2) - Could cause strong ground shaking in Rosemead.

Blind Thrust Faults -

Faults are buried below the surface; small triangles indicated fault dip direction (north) and thin gray lines indicate the depth contours (e.g., 5 km = 5 kilometers deep) on the fault surface (Shaw el al, 2002).

Surface Faults -

Faults exposed at the ground surface; solid where well located, dashed where approximate, and dotted where concealed (Bryant, 2005)

Sources: Shaw et al. 2002, and Bryant, 2005.

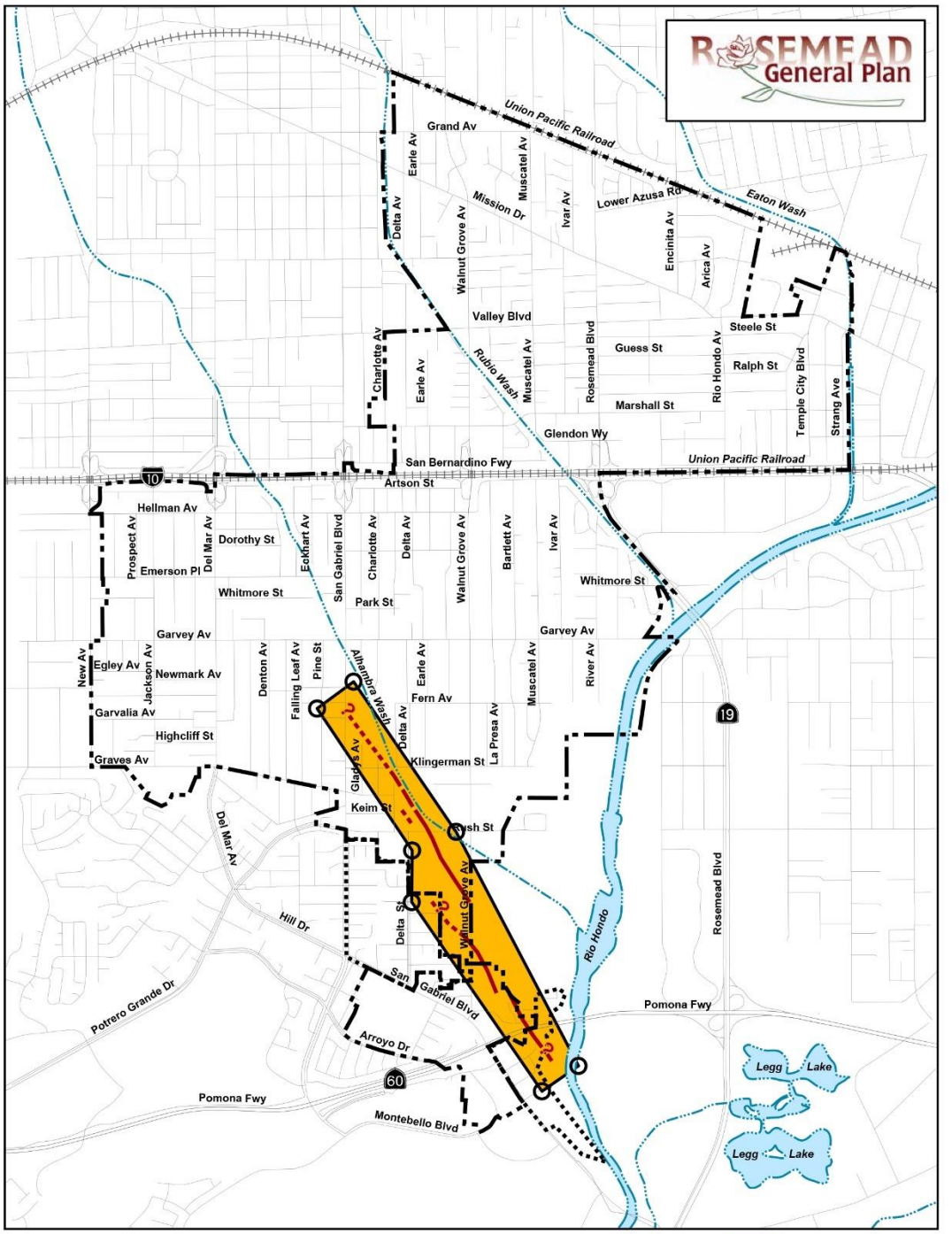
Feet

0 18,000 36,000 54,000

Figure 5-2

Earthquake Faults

June 2008



Rosemead City Boundary
Sphere of Influence Boundary
Major Roads
Railroad
River/Wash

Active Faults
Well Located
Approximate Located
Inferred Location
Query indicates additional uncertainty.

Alquist-Priolo Earthquake Fault Zone
Turning Point

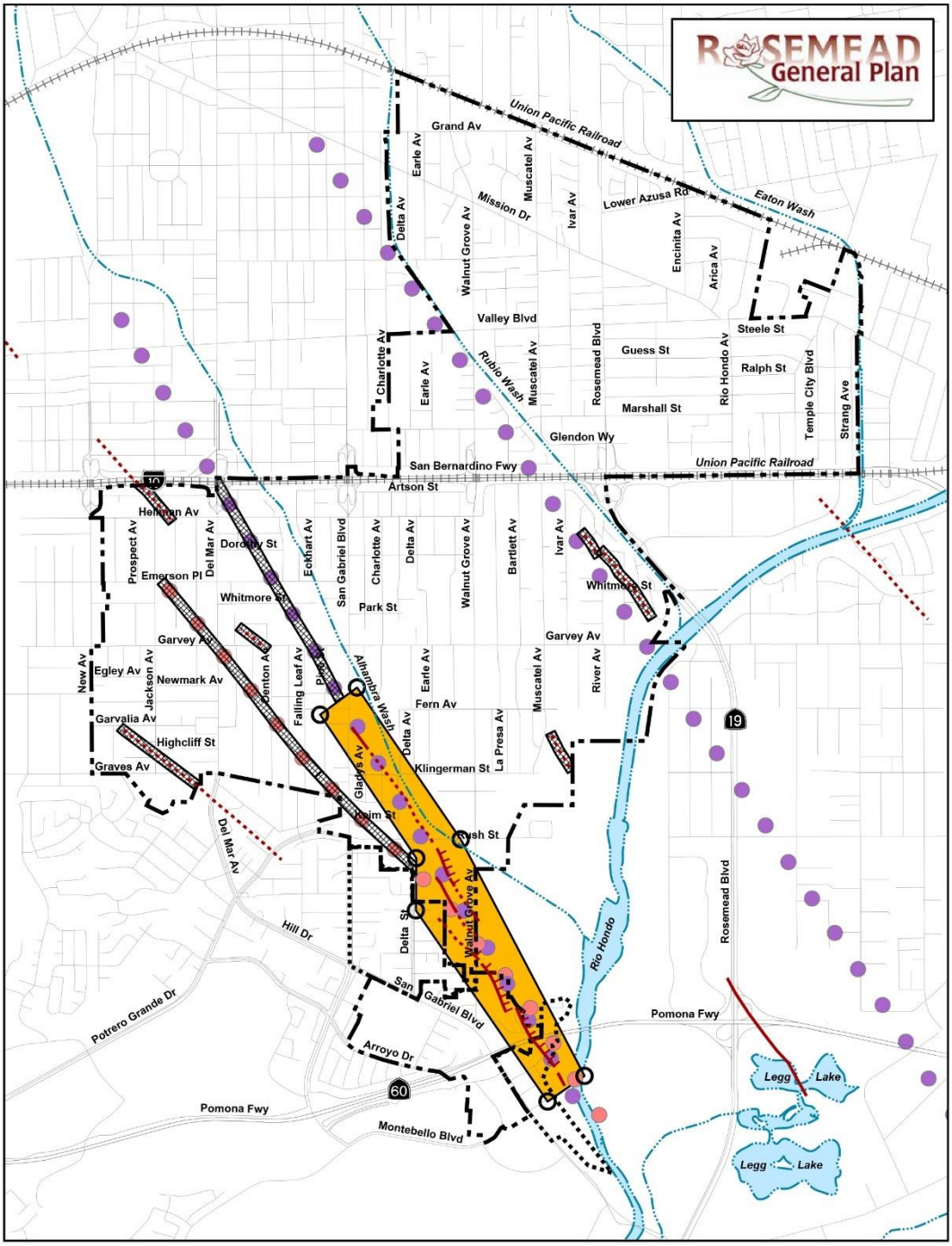
Sources: California Division of Mines & Geology (CDMG), November 1, 1991.

0 1,000 2,000 3,000 4,000 Feet

Figure 5-3
Alquist-Priolo Earthquake Fault Zone

City of Rosemead
General Plan Update

June 2008



Fault Hazard Management Zone (FHMZ) for Important Facilities

Alquist-Priolo Earthquake Fault Zone

Approximate location of escarpment of Bullard and Lettis (1992)

Inferred faults from California Department of Water Resources (1966)

Photolineaments defining Probable or Possible fault

Well-defined

Less well-defined

Indicate downside of scarp

Sources: CDMG, 1991, Treiman, FER-222; Bullard and Lettis, 1992; CDWR, 1966.

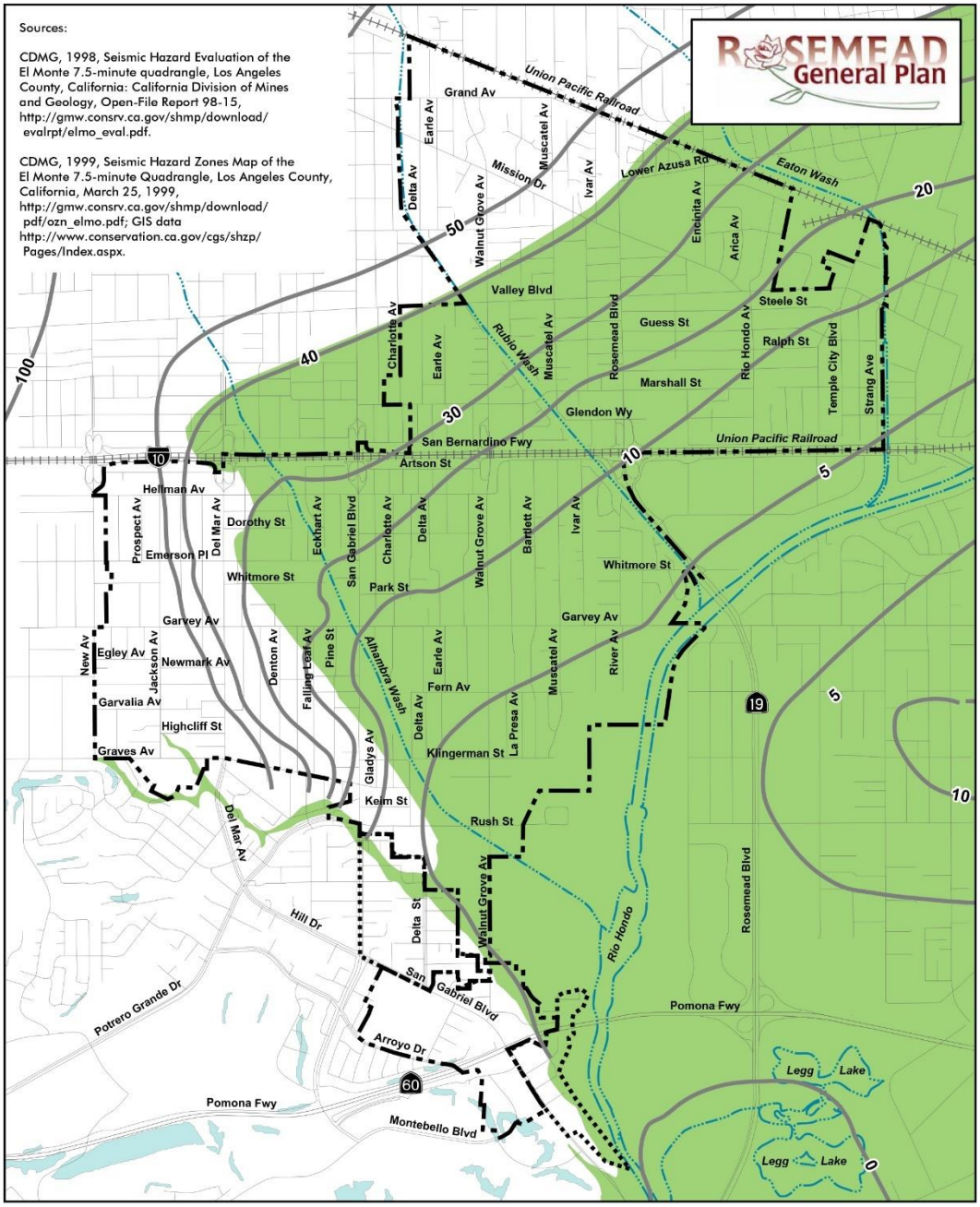
0 1,000 2,000 3,000 4,000 Feet

Figure 5-4

Fault Hazard Management Zones (FHMZ)

City of Rosemead
General Plan Update

June 2008



Zones of Required Investigation:

Liquefaction
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigations as defined in Public Resources Code Section 2693(c) would be required.

—30— Historically Highest Groundwater Contours (Depth in Feet)

Rosemead City Boundary
Sphere of Influence Boundary
Major Roads
Railroad
River/Wash

0 1,000 2,000 3,000 4,000 Feet

Figure 5-5
Areas Susceptible to Earthquake-Induced Liquefaction & Landslides

City of Rosemead
General Plan Update

June 2008

Flooding

According to flood maps prepared by the Federal Emergency Management Agency (FEMA), no part of Rosemead lies within a 100-year or 500-year flood zone. Regional drainage improvements, including historic improvements to the Rubio and Alhambra Washes, adequately protect the City from flooding associated with major storm events. FEMA Flood Insurance Rate Maps (FIRMs) indicate that most of the City is subject to minimal hazard from flooding (**Figure 5-6**). State law, as revised in 2007 (AB 162), identifies this as a flood hazard zone, although limited flood risk is associated with this classification. A small portion of the City on the south border is an unstudied area and as such flooding hazards are unknown. Rosemead has an adopted and FEMA approved flood plain management ordinance that substantially complies with AB 162.

State law (AB 162) also requires General Plans to identify existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities. Flood hazards in the City were reviewed as a part of the 2018 Hazard Mitigation Plan Update, with no change to flood risk noted; nearly the entire City is located in an area subject to minimal flood risk. If new data and information becomes available, the City will take it into consideration, where necessary.

Refer to **Figure 2-1** in the Land Use Element for allowable development throughout the City, and **Figure 4-1** of the Resource Management Element for utilities (Edison power lines and related easement). Refer to **Figure 5-8** for a map of important facilities, all of which are located within areas of minimal flooding risk. As of 2009, awareness floodplain mapping provided by the Department of Water Resources was not available for the City of Rosemead.

While general flooding from storm events is not common in Rosemead's history, several dams, which continually or sometimes impound water, have the potential to fail during a large earthquake and flood portions of the City. These are the Whittier Narrows Dam, Santa Fe Dam/Reservoir, and Garvey Dam/ Reservoir. Failure of any of these dams during a time when significant water is impounded could cause inundation of residences, businesses, and infrastructure. **Figure 5-7** (California Office of Emergency Services, 2009; National Geographic Society, 2003) shows the potential flood areas associated with this potential hazard, which is discussed further in Appendix A.

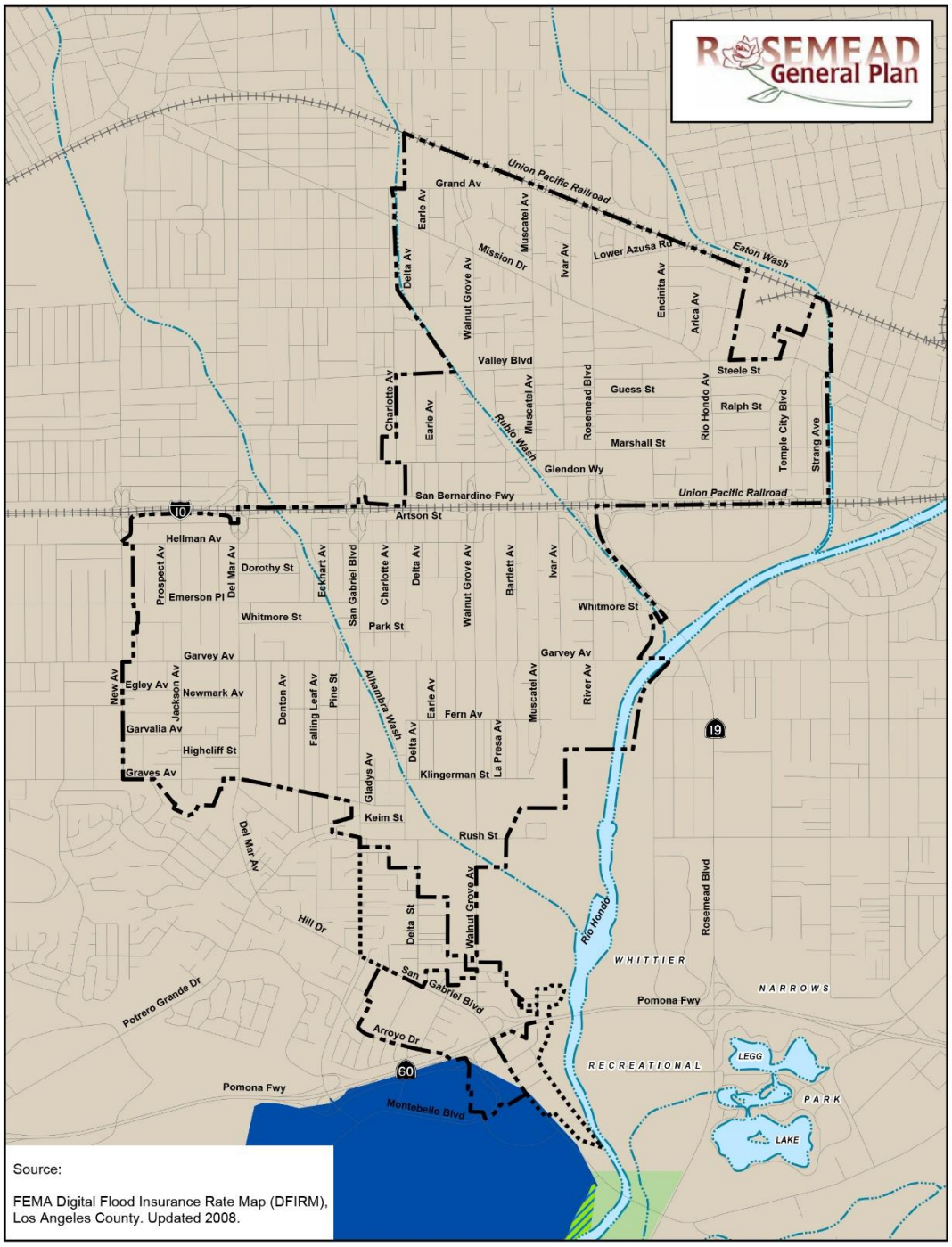


Figure 5-6
FEMA Flood Hazard Zones

City of Rosemead
General Plan Update

December 2009

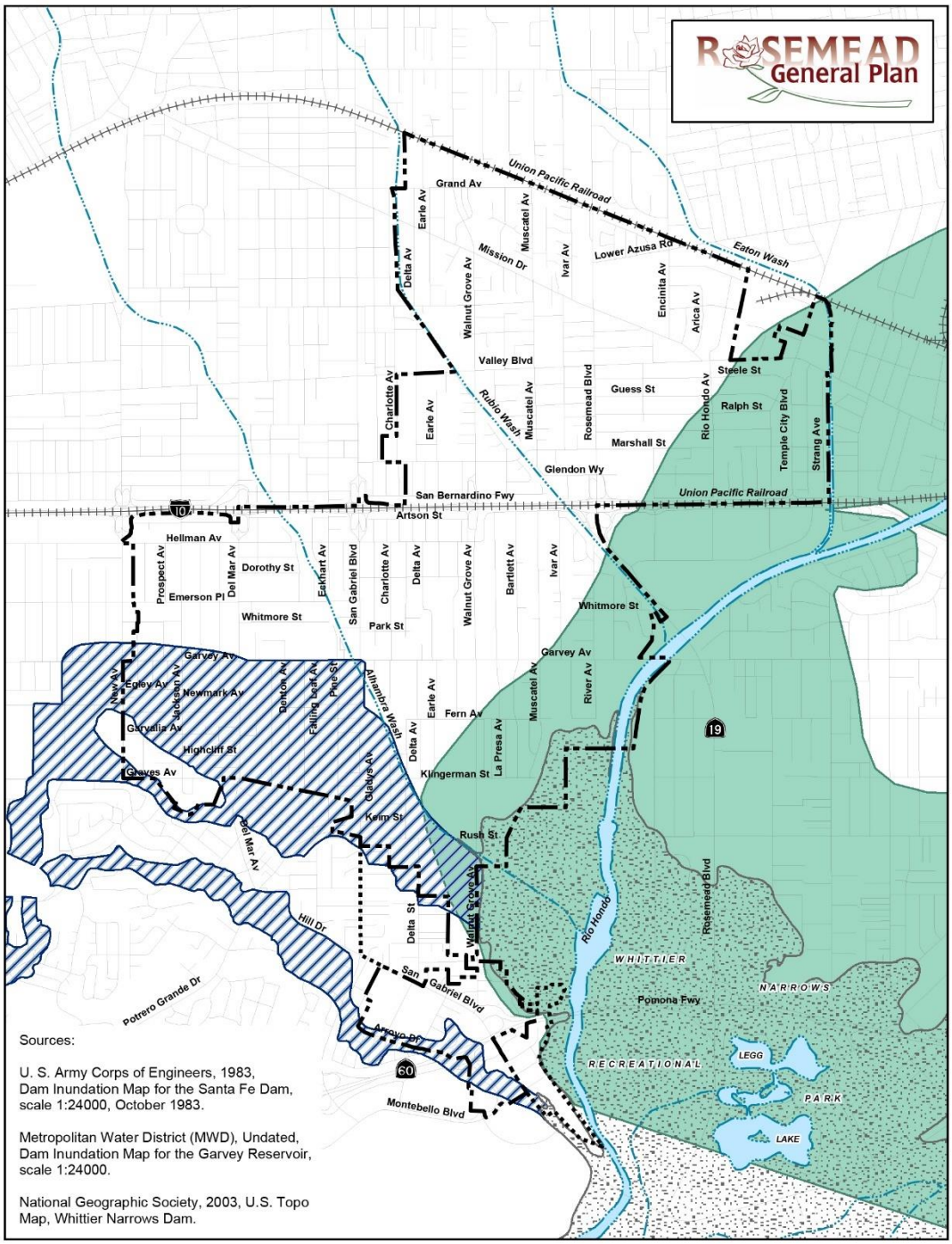
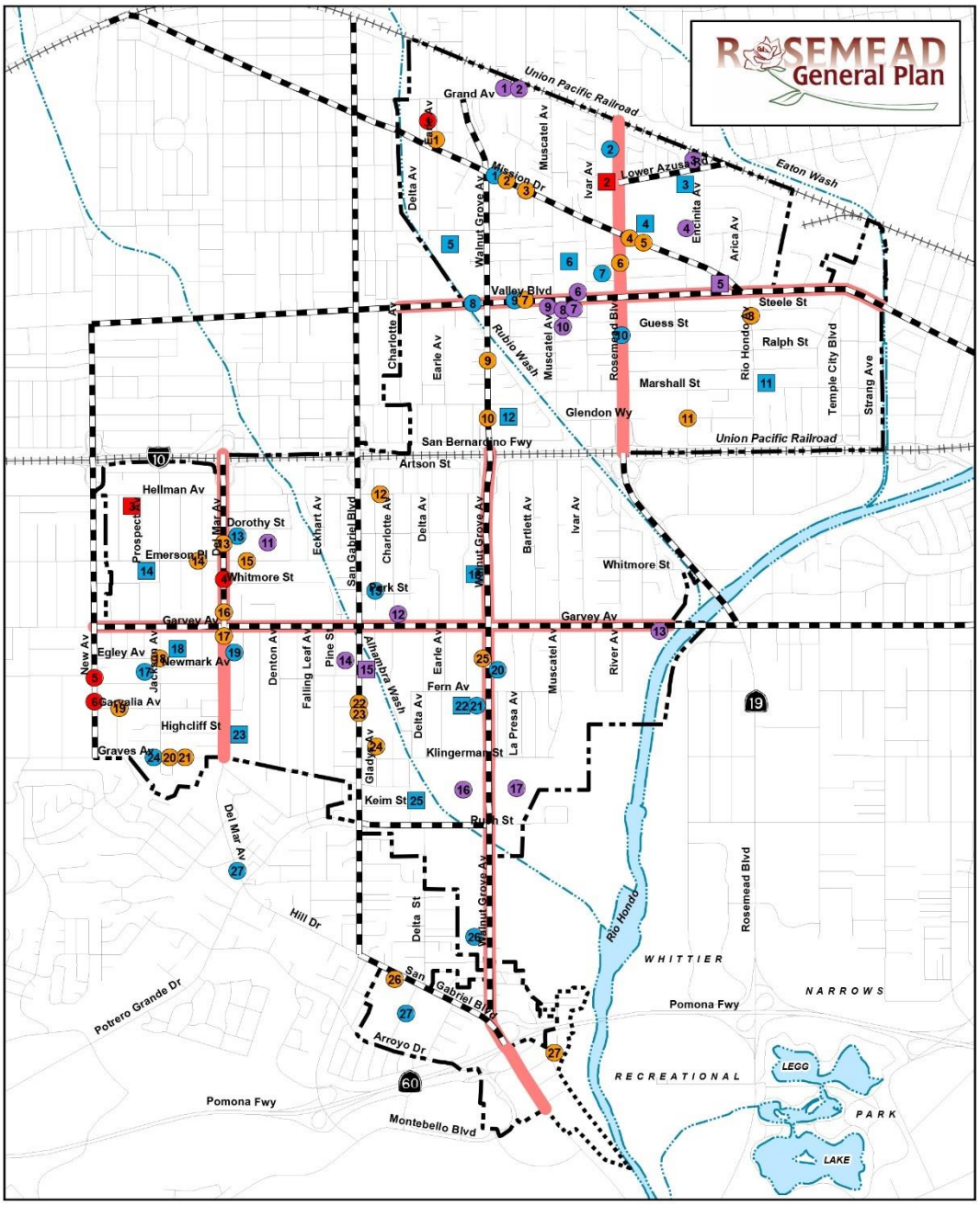


Figure 5-7
Dam Failure Inundation Areas

City of Rosemead
General Plan Update

January 2009



Important Facilities:
For more information on Important Facilities see site number and refer to Table 5-3.

- Hospital/Nursing Home
- Public Facility
- School
- Place of Worship

Emergency Shelters
All Emergency Shelters are Important Facilities. The colors are associated to the categories listed above under Important Facilities.

- Medical Facilities
- Fire Station
- Potential Emergency Center

Evacuation Routes
Truck and Evacuation Routes may overlap in some areas.

- Truck/Hazardous Materials Transport Routes
- Evacuation Routes

Source: City of Rosemead, DMP Inc.
0 1,000 2,000 3,000 4,000 Feet

Figure 5-8
Important Facilities

City of Rosemead
General Plan Update

June 2008

Hazards Due to Human Activities

Businesses and residents in Rosemead are subject to potential hazards associated with earthquakes, hazardous materials incidents, fires, and other conditions that may impact infrastructure and impede emergency response. Each type of disaster requires focused planning to minimize the risks to life and property when a disaster occurs. The period following a disaster is often very difficult for communities and can be, at times, as devastating as the disaster itself. Cities that prepare ahead of time can reduce the fear, confusion, and loss resulting from catastrophic incidents. Planning efforts need to ensure access to critical facilities such as police and fire, hospitals and emergency care facilities, schools, utilities, roadways, and freeways.

Rosemead participates in the Standardized Emergency Management System (SEMS) that provides a statewide framework for coordinating multi-agency responses to emergencies and disasters. The City's SEMS incorporates mutual aid agreements with other jurisdictions, establishes lines of communication during emergencies, and standardizes incident command structures. The City has also complied with the Federal Emergency Management Agency's (FEMA) requirements to prepare a disaster mitigation plan in accordance with the Disaster Mitigation Act of 2000. The plan represents Rosemead's commitment to reducing the risk from natural hazards and serves as a guide for the use of available City resources. This plan also helps the State provide technical assistance and prioritize project funding.

Rosemead contracts with the Los Angeles County Sheriff and the Los Angeles County Fire Department for provision of emergency response and law enforcement services. This arrangement allows the City to more readily adjust staffing to meet the changing needs of businesses and residents. Also, County agencies can easily provide supplemental responses from any other Sheriff or Fire Department stations. The County of Los Angeles (LA County) Office of Emergency Management (OEM) is the lead agency for the "Operational Area," which includes all of the independent cities and special districts in LA County. As the Operational Area Coordinator, the OEM employs a set of policies, procedures and practices to ensure an effective response to the most prevalent local emergencies driven by climate change – namely wildfires, mudslides in burn areas, drought, heat waves, vector-borne public health emergencies, sea level rise, and urban flooding. The LA County OEM works with County departments, cities, and partner

agencies to increase the capability of the region to mitigate, prepare for, respond to, and recover from all hazards impacting the County, including those exacerbated by climate change.

In the event of an emergency requiring evacuation, Rosemead residents would have multiple options through the existing City and regional transportation system. Designated evacuation routes are identified on **Figure 5-8**. The evacuation route map is maintained in coordination with the County of Los Angeles. Rosemead has easy accessibility to several freeways that connect it to the City to Los Angeles and the larger Los Angeles metropolitan region. The San Bernardino Freeway (Interstate 10) runs east-west through the City, and the Pomona Freeway (State Route 60) runs through the southern portion (see General Plan Introduction **Figure 1-1** and **Figure 1-2**). Interstate 710 to the west provides direct access to Long Beach, and Interstate 605 to the east connects to Huntington Beach. Interstate 210 to the north provides east-west connection to the San Fernando Valley and the Inland Empire.

Rosemead Boulevard, Walnut Grove Avenue, San Gabriel Boulevard, and Del Mar Avenue are the major north-south roadways within the City. All four major north-south roads provide connections to Interstate 10. In addition, San Gabriel Boulevard connects to SR-60 within the southern area of the city. Valley Boulevard, Garvey Avenue, Graves Avenue, and Rush Street are the major east-west roadways within the City. These arterials provide good alternative travel routes to destinations throughout the San Gabriel Valley.

The road network provides safe and ready access for emergency equipment and the evacuation of residents during disasters. Transit evacuations are coordinated through the Los Angeles County Sheriff's Department and the California Highway Patrol. In addition, if needed, the City will reach out to the County EOC through the Operational Area Response and Recovery System to request for transit services and buses for evacuation. In the event of an emergency requiring evacuation, the City is prepared to provide instructions to residents through the City's E-Alerts, Nixle alerts, website, and social media platforms to instruct individuals on which roadways should be used. Routes would vary based on the type of emergency and the area affected.

Fire Hazards

Fire hazards, including brush land and structure types, are a significant problem in Los Angeles County and throughout California. State law (SB 1241, 2012) requires cities to update their general plan safety elements to address the risk of fire in State Responsibility Areas (SRA) and Very High Hazard Fire Hazard

Severity Zones (VHFHSZ), and to regularly review changing fire risks (SB 1035, 2018). Rosemead does not have any SRAs or VHFHSZs within its boundaries. Although Rosemead is an urbanized community surrounded by other developed communities, the increase in catastrophic fires within Southern California has demonstrated that even areas of low fire hazard risk can experience impacts from extreme fire events. Climate change plays an increasing role in contributing to these disasters.

Structural fires represent the primary fire hazard in Rosemead. Structural fires are generally caused by faulty equipment or lack of knowledge of fire prevention precautions. The potential for fire hazards increases when flammable and explosive materials are improperly stored, handled, or used. Planning for adequate fire protection and suppression in a densely built community like Rosemead becomes increasingly important due to aging buildings, and proximity of residences to commercial and industrial uses.

The County of Los Angeles Fire Department has two fire stations in Rosemead:

- Station 4, located at 2644 N. San Gabriel Boulevard
- Station 42, located at 9319 E. Valley Boulevard

As noted above, any County fire unit may respond to incidents in Rosemead, depending on need and availability. In particular, special hazardous materials response units from the stations are available. The City will coordinate with the County Fire Department to implement fire hazard education and fire protection programs. In addition, the City will coordinate with local water districts to ensure water pressure is adequate for firefighting purposes.

Adequate water flow and pressure is determined through the application of Regulation No. 8 of the Fire Code. This code sets standards for new development and existing development.

Hazardous Materials

Commercial and industrial businesses in Rosemead and adjacent communities use hazardous materials. These businesses include dry cleaners, film processors, auto service providers, landscape contractors, and paint shops. Larger businesses can generate, use, and/or store large quantities of hazardous products. The current regulatory environment provides a high level of protection from the hazardous materials manufactured, transported to businesses, and stored within Rosemead. Federal, State, and County agencies enforce regulations for hazardous waste generators and users. According to the California Environmental Protection Agency, as

of 2006, approximately 49 hazardous waste generators are located within the City of Rosemead.

Rosemead's land use pattern generally separates industry from residential uses. However, commercial freight carriers transporting hazardous substances along the I-10 and SR-60 freeways, along major truck routes such as Rosemead Boulevard, or along railways present potential hazards. All motor carriers and drivers involved in the transportation of hazardous materials must comply with the requirements of federal and State regulations and must apply for and obtain a hazardous materials transportation license from the California Highway Patrol. When transporting explosives, inhalation hazards, and highway route-controlled quantities of radioactive materials, safe routing, and safe stopping places are required. The City has established truck routes and, these roadways must be used by larger trucks and any vehicle specifically carrying hazardous wastes and materials.

The Los Angeles County Fire Department, Health Hazardous Materials Division tracks hazardous materials handlers to ensure appropriate reporting and compliance. The Division inspects businesses that generate hazardous waste, conducts criminal investigations, provides site mitigation oversight, and undertakes emergency response operations. Such inspections reduce risks associated with exposure to hazardous materials and adverse environmental effects. The County Fire Department's Emergency Operations Section provides 24-hour emergency response services to hazardous materials incidents. Emergency responders identify unknown substances, monitor spills and releases for safe and immediate mitigation, and identify responsible parties for payment of cleanup costs. The Inspection Division of the Fire Department's Emergency Operations section inspects hazardous material handling and hazardous waste-generating businesses to assure compliance with applicable laws. Additionally, Inspection Division staff responds to medical waste emergencies, assists law enforcement agencies with response to illegal drug labs, and investigates resident and business complaints.

The City hosts "Household Hazardous Waste Roundup" events sponsored by the Sanitation Districts of Los Angeles County and the Los Angeles County Department of Public Works. The County's Household Hazardous Waste Collection Program collection events allow residents to dispose of hazardous materials safely and at no cost to them.

Statutes and Plans of Other Agencies

The federal and State governments – in recognition of safety issues affecting broad geographic areas – have adopted programs with their public safety planning efforts.

California Building Code

Beginning in 2007, rather than using the Uniform Building Code, California instead adopted the 2006 International Building Code (IBC) with substantial local amendments. The IBC is developed and published by the International Code Council (ICC), which was formed in 1994 by a merger of the three national building code publishers. During January and February 2007, the California Building Standards Commission (http://www.bsc.ca.gov) adopted, in sections, the 2007 International Building Code (IBC). The new California Building Code (CBC) became effective July 1, 2006, and local codes were adopted 180 days later. The State adopts a set of new construction codes every three years.

The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in national model codes;
- Building standards that have been adopted and adapted from national model codes to address California's ever-changing conditions; and
- Building standards, authorized by the California legislature, that constitute amendments not covered by national model codes, that have been created and adopted to address particular California concerns.

The California Building Standards Code is comprised of twelve parts that incorporate public health and safety standards used in the design and construction of buildings in California. The codes also include standards for historic buildings, energy efficiency and access compliance for persons with disabilities. Structures such as dams and freeways fall under criteria developed by various State and Federal agencies. The City of Rosemead has adopted and currently enforces the 2019 California Building Code as amended by Title 26 Los Angeles County Building Code (adopted November 26, 2019, by the Los Angeles County Board of Supervisors), together with their appendices.

Alquist-Priolo Earthquake Fault Zoning Act

The 1972 Alquist-Priolo Earthquake Fault Zoning Act seeks to mitigate the hazard of fault rupture by prohibiting the placement of structures for human occupancy across the trace of an active fault. The State Geologist is required to compile maps that delineate earthquake fault zones (AP zones) along faults that are "sufficiently active" and "well defined." Cities and counties are responsible before issuing building permits for a Project to assure that a geologic investigation is performed to demonstrate that proposed buildings will not be constructed across active faults. The fault evaluation and written report for the specific site must be prepared by a geologist registered in the State of California. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a safe distance from the fault. A Project is carefully defined, but generally includes all land divisions and most structures for human occupancy, although some exceptions are allowed and local agencies can be more restrictive than state law requires. An AP zone map has been compiled by the State Geologist for the City of Rosemead area (CDMG, El Monte Quadrangle, 1991; **Figure 5-3**) and defines an AP zone for the Alhambra Wash fault within the City.

Seismic Hazards Mapping Act

California's 1990 Seismic Hazards Mapping Act (http://www.consrv.ca.gov/cgs/shzp) requires the State Geologist (CGS) to compile maps identifying and describing seismic hazard zones in California, with emphasis given to the urbanized areas in Los Angeles, Ventura and Orange counties in southern California, and Alameda, San Francisco, San Mateo and Santa Clara counties in northern California. Seismic hazards considered include amplified shaking due to local geological or geotechnical conditions, liquefaction, and earthquake-induced landslides. Guidelines prepared by the State Mining and Geology Board identify the responsibilities of State and local agencies in the review of development within seismic hazard zones. Development on a site that has been designated as a seismic hazard zone requires a geotechnical report and local agency consideration of the policies and criteria established by the Mining and Geology Board. A seismic hazard zones map (**Figure 5-5**) delineates the areas within or near Rosemead that may be susceptible to liquefaction and earthquake-induced landslides.

Unreinforced Masonry Building Law

In 1986, California enacted a law that required local governments in Seismic Zone 4 to inventory unreinforced masonry (URM) buildings, to establish a URM loss-reduction program and report progress to the state by 1990. Each local government can tailor its program to its own specifications to allow for each jurisdiction to take political, economic, and social priorities into account. This law requires 366 local governments in the highest Seismic Zone 4 to:

- Inventory URM buildings within each jurisdiction.
- Establish loss reduction programs for URM buildings by 1990.
- Report progress to the California Seismic Safety Commission.

In addition, the law recommends that local governments:

- Adopt mandatory strengthening programs by ordinance.
- Establish seismic retrofit standards.
- Enact measures to reduce the number of occupants in URM buildings.

California's Seismic Safety Commission (2006) monitors local government efforts to comply with this law and reports to the state's Legislature. The City of Rosemead had seven URMs; five have been strengthened and two were demolished. The City is in compliance with mitigation requirements.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP). Participating jurisdictions must exercise land use controls and purchase flood insurance as a prerequisite for receiving funds to purchase or build a structure in a flood hazard area. Rosemead has participated in the program since 1979 and as of 2007, no special flood hazard areas have been identified in the City. The NFIP provides federal flood insurance subsidies and federally financed loans for eligible property owners in flood- prone areas. Rosemead is identified on the National Flood Insurance Program's Flood Insurance Rate Maps as being within Zone X and D, an area outside the 100- and 500-year flood zones, and thus subject to minimal flooding. Nevertheless, nearly 25 percent of the flood claims received by FEMA on an annual basis occurred in areas outside the 100- and 500-year flood zones. Associated hazards in hillside areas and at the base of hills or bluffs can include severe erosion, mudflows and debris flows.

Standardized Emergency Management System (SEMS)

All cities in California are required to adopt a SEMS plan to establish procedures and responsibilities of various City staff in the event of an emergency. A SEMS Plan allows cities to quickly respond to any large-scale disaster that requires a multi-agency and multi-jurisdictional response.

National Incident Management System (NIMS)

NIMS is the federal equivalent to the SEMS response plan. The Governor's Office of Emergency Services (OES) is the lead agency for the adoption, promotion, and implementation of NIMS.

Federal Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires state and local governments to prepare mitigation plans to document their mitigation planning process, and identify hazards, potential losses, mitigation needs, goals, and strategies. This type of planning supplements the City's General Plan and emergency management planning programs.

The City adopted an update to its Hazard Mitigation Plan (Mitigation Plan) in 2018 in response to the Disaster Mitigation Act. The Mitigation Plan is a federally mandated update to the City of Rosemead 2012 Hazard Mitigation Plan and ensures continuing eligibility for Hazard Mitigation Grant Program (HMGP) funding. Part I of the Hazard Mitigation Plan documents the mitigation planning process including how it was developed, the planning timeframe, and who was involved in drafting the document. In Part II, the Mitigation Plan provides information on hazard identification, vulnerability and risk associated with hazards in the City, and describes the hazards posing a significant threat to the City. Part III identifies mitigation strategies including the goals, community capabilities, and priority setting methods, and Part IV includes appendices with additional information.

The City of Rosemead utilized the categorization of hazards as identified in California's State Hazard Mitigation Plan including: Earthquakes, Floods, Levee Failures, Wildfires, Landslides and Earth Movements, Tsunami, Climate-related hazards, Volcanoes, and Other hazards. The Mitigation Plan includes information on

previous occurrences of hazard events and the probability of future events; Earthquake and Flooding were identified as "Moderate" probability hazards, Windstorm as a "High" probability hazard, and Dam Failure as a "Low" probability hazard.

As stated in the Mitigation Plan, a vulnerability assessment "is a simultaneous look at the geographical location of hazards and an inventory of the underlying land uses (populations, structures, etc.). Facilities that provide critical and essential services following a major emergency are of particular concern because these locations house staff and equipment necessary to provide important public safety, emergency response, and/or disaster recovery functions." The Mitigation Plan assessment references the City's General Plan and uses demographic and land use data to help identify present day and future vulnerabilities. The core of the Mitigation Plan is the Mitigation Strategy which outlines the City' s blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing tools.

The Mitigation Plan provides valuable information to understand potential climate change vulnerability, since climate change impacts tend to exacerbate existing vulnerabilities. However, the Mitigation Plan does not specifically address climate change. As such, the 2021 Public Safety Element technical update summarizes the key findings of the Mitigation Plan, provides the climate vulnerability assessment and adaptation policies required by State law, and incorporates the Mitigation Plan into the General Plan by reference. A more detailed vulnerability analysis related to climate change is provided below.

USA PATRIOT Act

Signed into law on October 26, 2001, the USA PATRIOT Act expanded the authority of U.S. law enforcement. The Act included the identification of federal crimes for attacks on public transportation and the use of biological weapons, and increased government surveillance powers to track activities related to homeland security and terrorism.

Relationship to Other General Plan Elements

The Public Safety Element relates most closely to the Land Use Element. Policies and plans in the Public Safety Element are designed to protect existing and planned land uses from specific types of hazards. **Table 5.2** below provides additional details on

how the Public Safety Element relates to the rest of the General Plan with respect to Environmental Justice.

Issues, Goals, and Policies

Certain human activities and natural conditions discussed in the Public Safety Element create hazards in Rosemead. These hazards in turn pose risks to individuals and properties that affect how we may develop and use property. Risk from such hazards can be reduced or avoided by recognizing the hazards and adopting and implementing land use and emergency response policies that provide the degree of protection the community desires.

These goals, policies, and implementation actions focus on: 1) reducing risks from natural hazards; 2) preparing for emergency situations; and 3) reducing risks from hazards associated with hazardous materials.

Natural Hazards

This section presents information on hazards related to geologic and soil units, active and potentially active faults, earthquakes, secondary seismic effects (e.g., liquefaction and dam inundation flooding) that affect policy and long-range planning in the City of Rosemead.

Geology and Soil Hazards

Geotechnical and engineering geology reports prepared for development and re-development projects in the City are required to identify geologic and soil hazards, as well as routine geologic and soils conditions important to the design and construction of the project (**Figure 5-1**). These reports are required to undergo review by qualified professional engineers and geologists to assure that the information, results, conclusions, and recommendations meet the state of the professional practice. Primary hazards considered are landslides, mudflows, general slope instability, unstable soils due to expansion or consolidation, subsidence, and shallow groundwater. Where these hazards are present, damage to structures and potentially serious injuries to individuals can occur. Proper mitigation of these hazards is required to prevent or reduce the potential damage to structures, injuries, and the loss of life. The City Planning, Building and Safety, and Public Works Departments shall continue to collectively assure that proper reports are prepared, reviewed, and approved in accordance with City, County, State, and Federal guidelines, as applicable.

Seismic/Earthquake Ground Shaking Hazards

As discussed above, there are eleven known faults within about 30 miles of Rosemead (shown on **Figure 5-2**) that pose an earthquake ground shaking hazard to the City of Rosemead. Standard construction (e.g., residential, commercial, industrial) is governed by the California Building Code (currently the 2007 version) and the City must adopt measures necessary to assure that these codes are followed. Knowledge of the sedimentary basin depth and geometry beneath the City of Rosemead are important for the proper estimation of earthquake ground motions.

The expected moment magnitudes and median peak horizontal ground accelerations shown in Appendix A are for planning purposes; individual projects require site-specific design earthquake determinations depending upon the uses associated with the project and whether the project is considered an essential services facility or other type of important structure. Projects in the City may fall within the jurisdiction of County, State, or Federal agencies (e.g., Caltrans, Division of the State Architect, and the Federal Emergency Management Agency) with more or less stringent earthquake design criteria. It is the responsibility of the City to protect the lives and property of the citizens of Rosemead by submitting input to these agencies to assure, to the maximum degree possible, their consideration for the application of the proper earthquake design factors.

Active and Potentially Active Surface Fault Rupture Hazard

Total damage/collapse of structures and severe injury can result if surface rupture occurs beneath or in the immediate vicinity of a building. Based on the geologic, seismic, groundwater, and tectonic/fault studies that have been conducted to date within and adjacent to the City of Rosemead. it is concluded that: 1) the Alhambra Wash fault (a trace of Whittier fault as is the East Montebello fault) is the only known active surface fault crossing the City and studies required by the APEFZ Act (**Figure 5-3**) are necessary; 2) the northwest- trending escarpment of Bullard and Lettis (1993), and various aerial photograph lineaments described by Treiman (1991; **Figure 5-4**), should be considered as potentially active faults with 200-foot wide "fault hazard management zones" (FHMZs) requiring special investigation on a case-by-case basis for new or significantly modified "important" facilities (defined below), and 3) the northwest trending groundwater barrier (CDWR, 1966) in east-central Rosemead is not considered to be active and is not included with a FHMZ.

Secondary Seismic Hazards

Local geological conditions may create additional hazards associated with seismic activity. Large and moderate earthquakes produce ground-shaking effects that may result in ground failure. **Figure 5-5** shows areas susceptible to seismically induced liquefaction. In locations where shallow groundwater levels and loose, unconsolidated soils occur together, a condition called liquefaction can occur, when the area is subjected to strong ground shaking. Soils that liquefy lose the ability to support structures; buildings may sink or tilt, with the potential for extensive structural damage. Liquefaction presents the most prominent secondary earthquake ground failure issue in Rosemead. Seismically induced landslides have the potential to occur in a limited area in the south of Rosemead, but proper geotechnical investigation and mitigation will minimize these secondary seismic hazards. Liquefaction-related lateral spreads can occur adjacent to stream channels and deep washes that provide a free face toward which the liquefied mass of soil fails. Lateral spreads can cause extensive damage to pipelines, utilities, bridges, roads and other structures.

California law (Seismic Hazard Mapping Act) requires identification of liquefaction-susceptible zones, where the dynamic (under seismic conditions) stability of the foundation soils must be investigated, and seismically induced landslide zones, where the stability of hill slopes must be evaluated. Within these areas, geologic studies must be completed and countermeasures undertaken in the design and construction of important infrastructure and buildings for human occupancy. California law also requires disclosure of these hazards as a part of all real estate transactions within the identified areas. The City shall continue to 1) apply the State seismic hazard zoning regulations at the earliest possible stage in the development process, 2) identify these hazards at the project development permit stage to assure proper design measures are implemented, and 3) inform at an early stage applicants planning to develop heavy structures or structures over two stories that the areas with historic high groundwater less than 30 feet deep are most susceptible to liquefaction and lateral spread landslides where adjacent to channel-type slopes.

Dam Inundation Flooding Hazards

Rosemead does not have natural floodplain areas, although it is bordered by the Rio Hondo in its eastern and southeastern extremes. Dam failure can be caused by strong earthquake ground shaking or a seiche event, erosion, improper siting and/or design, and rapidly rising floodwaters during heavy storms. Such a dam failure can be instantaneous or gradual, depending on many factors (e.g., the cause and dams building materials). Resulting

release of water can also be instantaneous or gradual, with either situation potentially causing injuries, loss of life, property damage, displacement of persons residing within the inundation path, and damage to infrastructure. Portions of the City are located within dam inundation areas for the Whittier Narrows Dam, Santa Fe Dam/Reservoir, and Garvey Dam/Reservoir (**Figure 5-6**). Given the City's distance from the Pacific Ocean, it's exposure to tsunami hazards resulting from offshore earthquakes is nil.

Natural Hazard-Related Goals and Policies

The overarching natural hazard related goal is stated below to provide the basic purpose and strategy adopted by the City of Rosemead to address safety concerns posed by natural hazards. Goal 1 has several policies that are more specific guidelines and tactics that will be used to meet Goal 1. Finally, implementation actions, the specific steps to be taken to satisfy the goal and policies, are presented in a subsequent section.

Underlying Goal 1 is the precept that all buildings and structures in the City of Rosemead should conform to the appropriate building standards in order to protect every citizen to the degree practical. In consideration of certain hazard zones referred to in the Safety Element, the City has defined the category "Important" building or structure in considering new or substantially refurbished existing facilities that should receive increased consideration for geologic, soil, seismic/earthquake, and flood hazard avoidance. An important facility, which would not apply to existing buildings of the types described below unless substantial refurbishment were proposed, would be defined by the City Community Development Director, the City Engineer, and the City Building Official for each case, as appropriate. In general, "Important" would include, but not necessarily be limited to:

(1) One whose function is judged as essential following a severe natural hazard such as an earthquake, e.g., police, fire, City communications center, and hospitals, in order to provide for the safety and well- being of the citizens of Rosemead;

(2) A structure that is critical to the City's recovery following a severe earthquake, i.e., key transportation/ evacuation routes, bridges, over/underpasses, electrical substations and towers, natural gas/fuel pipelines;

(3) Structures that may be sensitive to earthquake hazards (e.g., liquefaction and ground shaking), e.g., buildings greater than 2-stories, pre-1971 tilt-ups, non-retrofitted buildings, soft-story construction, non-ductile reinforced concrete, and parking garages; and

(4) Buildings that may have significant populations, and/or high-population densities, i.e., schools/pre-schools, nursing homes, and locations with limited mobility populations.

Goal 1: **The City of Rosemead will act in cooperation with federal, State, and County agencies responsible for the enforcement of planning statutes, environmental laws, and building codes to minimize, to the extent practical, risks to people and property damage, risks related economic and social disruption, and other impacts resulting from 1) geologic and soil hazards, 2) seismic hazards including primary and secondary effects of seismic shaking, fault rupture, and other earthquake-induced ground deformation in Rosemead, and 3) dam failure-induced flood and inundation hazards, while reducing the disaster recovery time due to hazard incidents in Rosemead. The City of Rosemead will continue using a HAZUS-based loss estimation analysis to more fully quantify potential physical damage, economic loss, and social impacts from these events.**

Policy 1.1: **Geology and Soil Hazards**

a. Encourage development in low hazards areas and implement actions that minimize changes to the natural topography and drainages, while protecting public safety and reducing potential property damage due to geologic and soil hazards through the use of proper design and construction techniques.
b. Assure that all aspects of the geotechnical and engineering geology evaluation process (planning, investigation, analysis, reporting, review, construction, and operations) for new development and redevelopment are conducted, and independently reviewed, by qualified professionals.

Policy 1.2: **Earthquake and Fault Hazards**

a. Minimize the exposure of people and property to primary and secondary earthquake-related hazards, while allowing properly designed projects to be developed in appropriate locations.
b. Assure that all aspects of the earthquake, fault rupture, liquefaction, and related seismic hazard

evaluation process (planning, investigation, analysis, reporting, review, construction, and operations) for new development and redevelopment are conducted, and independently reviewed, by qualified professionals.

Policy 1.3: **Flood Hazards**

a. Minimize development of Important Facilities in areas with potential for flood inundation to the extent possible in order to protect public safety and reduce potential property damage due to dam failure-induced flooding. Maintain the structural and operational integrity of essential public facilities during flooding.
b. Assure that all aspects of the dam failure flood/inundation evaluation process (planning, investigation, analysis, reporting, review, construction, and operations) for new development and redevelopment are conducted, and independently reviewed, by qualified professionals.
c. Minimize the risks of flooding to new development. Carefully evaluate whether new development should be located in a flood prone area or potential dam inundation area, and identify construction methods or other methods to minimize damage if new development is located in these areas.
d. Establish cooperative working relationships among public agencies with responsibility for flood protection.

Policy 1.4: **Disaster Preparedness and Communication**

a. Create and maintain emergency preparedness and evacuation plans; create public information/education programs to help assure coordinated response, recovery, and mitigation efforts carried out by the City and other governmental agencies.
b. Foster cooperation with neighboring cities and agencies to enhance mutual aid opportunities following natural hazard events.

Hazards Due to Human Activities

Goal 2: Ensure safety of all City residents and local workers from hazardous wastes and the hazards associated with the transport of such wastes.

Policy 2.1: Work with the Los Angeles County Fire Department to identify and maintain an up-to- date database of all producers, users, and transporters of hazardous materials and wastes.

Policy 2.2: Strictly enforce the use of designated truck routes for vehicles transporting hazardous materials (**Figure 5-8)**.

Policy 2.3: Support, develop and participates in safety hazard awareness programs that provide for the safe and efficient collection and disposal of household hazardous wastes.

Policy 2.4: Review in detail any industrial development proposed to be located adjacent to a residential use to ensure that necessary safeguards are included to minimize the risk to residential uses. Safeguards may include, for example, appropriate siting of buildings and loading areas, on-site emergency response equipment or supplies, and barrier walls.

Fire Protection and Law Enforcement

The Los Angeles County Fire Department provides service from two stations in Rosemead.

The Los Angeles County Sheriff's Department serves the City of Rosemead from the nearby Temple Station. In addition to providing patrol and investigative services, the Sheriff offers a broad range of support services, including Neighborhood Watch coordination, community education programs, drug prevention education for school children, and homeland security. A key crime prevention program the Department runs is the Community/Law Enforcement Partnership Program, or CLEPP. Sheriff's Department staff shall help communities mobilize and organize against gangs, drugs, and violence by working through schools, community-based organizations, local businesses, churches, residents, and local governments.

Goal 3: Provide high levels of public safety, emergency response, and law enforcement services.

Policy 3.1: Ensure that current applicable building codes and fire codes are maintained and implemented.

Policy 3.2: Include the Fire Department in the review process of proposed projects to ensure that fire prevention and suppression features have been considered in the overall design.

Policy 3.3: Require that any structures identified as deficient in fire protection or lacking adequate suppression devices make recommended improvements in a time frame established by the Fire Department.

Policy 3.4: Work with local water service providers to ensure that private water distribution and supply facilities have adequate capacity to meet both the water supply needs of the community and required fire flows. Service planning should include methods to address earthquake-induced damage to water storage and distribution facilities.

Policy 3.5: Provide for all street signs and property address signs to be clearly marked and visible to emergency personnel.

Policy 3.6: Annually assess the level and quality of services provided by the County Sheriff and County Fire Departments, and adjust the service levels as needed to meet changing community needs.

Policy 3.7: Take full advantage of community policing, education, and crime prevention programs available through the County Sheriff's Department.

Policy 3.8: Incorporate crime prevention considerations into the development project review process, where applicable.

Policy 3.9: Develop and implement a periodic inspection program for multi-family units over three units and mixed-use projects.

Policy 3.10: Continue to coordinate with Los Angeles County for citywide emergency evacuation planning and the American Red Cross for emergency shelter planning needs.

Policy Map and Plan

Rosemead's approach to mitigating public safety hazards and reducing loss of life, injury, and property damage in the City focuses on emergency preparedness. The policies contained in this element include requirements that the City maintain an up-to-date regional emergency response system, procedures for educating the public about the importance of emergency preparedness, and programs to ensure that emergency equipment and supplies are maintained to adequately meet the needs of the City in an emergency situation.

Implementation of the goals and policies in this Element will have the beneficial effect of reducing potential fire hazards in the City. The replacement of older, deteriorating structures and the requirement that owners maintain their properties and incorporate up-to-date fire-suppression devices in structures will reduce the occurrence of structural fires in the City.

Figure 5-8 identifies designated hazardous materials transport routes and evacuation routes, as well as fire stations, medical facilities, and potential emergency centers. The City has identified local schools as potential sites for emergency centers. Having recommended sites will expedite the time necessary to set up emergency centers such as shelters.

Implementation Actions

Natural Hazard Safety

Goal 1: **The City of Rosemead will act in cooperation with federal, State, and County agencies responsible for the enforcement of planning statutes, environmental laws, and building codes to minimize, to the extent practical, risks to people and property damage, risks related to economic and social disruption, and other impacts resulting from 1) geologic and soil hazards, 2) seismic hazards, including primary and secondary effects of seismic shaking, fault rupture, and other earthquake-induced ground deformation in Rosemead, and 3) dam failure-induced flood and inundation hazards, while reducing the disaster recovery time due to hazard incidents in Rosemead. The City of Rosemead will consider undertaking a HAZUS-based loss estimation analysis to more fully quantify potential physical damage, economic loss, and social impacts from these events.**

Action 1.1 Review County and special district capital improvement plans for consistency with the seismic safety policies governing the location of critical public facilities.

Action 1.2 Inspect critical public facilities for structural integrity, and require correction as necessary.

Action 1.3 Require all private roads to conform to the existing City standards concerning safety and the movement of emergency vehicles.

Action 1.4 Develop a public information program on, hazard prevention and disaster response and disseminate information on public safety to all residents and businesses in the City on a regular basis.

Action 1.5 Create a website or link on the City of Rosemead website that includes links to readily available published geologic, soil, and earthquake hazard maps covering the City, and links to the City statutes, plans, and codes governing development and re-development projects. Use the site to communicate to the public information about geologic and soil, seismic, and dam inundation flood hazards and City requirements, including but not limited to a) specify sources to identify licensed professionals such as California Registered Geotechnical Engineers and Certified Engineering Geologists, b) seismic design and construction requirements for individuals and developers applicable to new and existing property improvements, c) City emergency preparedness plans, and d) home- or business-based emergency preparedness procedures and resources.

Action 1.6 Identify evacuation routes and update on a regular basis the Emergency Preparedness and Evacuation Plan (as required by Government Code Section 65302) that addresses structural hazards, landslides and slope stability, liquefaction, inundation from dam failure, seismic activity, and other natural disasters.

Action 1.7 Encourage only the minimum grading necessary to create suitably sized and safe building areas.

Action 1.8 Avoid grading and development that requires filling natural drainages or changing natural surface water flow patterns.

Action 1.9 As required by law and statute, the City shall implement applicable federal, State, and County regulations related to geologic and soils investigations, analyses, designs, and construction, including but not limited to implementing the most up-to-date California Building Code (CBC) provisions regarding lateral forces (Chapter 23) and grading (Chapter 70), and incorporate and adopt Los Angeles County amendments to the CBC.

Action 1.10 Require proper geotechnical and engineering geological investigations and reports that address and evaluate necessary analyses of (for example) soil foundation conditions (i.e., expansivity, collapse, seismic settlement), slope stability, surface and subsurface water, and provide necessary design recommendations for grading and site stability, such as excavation, fill placement, and stabilization or remediation measures.

Action 1.11 Require routine inspection of grading operations by properly qualified City representatives to assure site safety and compatibility with approved plans and specifications.

Action 1.12 Regularly review the technical data on public safety, seismic safety, and flooding safety for use in the planning process and undertake revisions or updates to the Public Safety Element as needed.

Action 1.13 Enact ordinances for the evaluation and abatement of structural hazards (i.e., parapet ordinance and hazardous building ordinance requiring repair, rehabilitation, or demolition of hazardous structures following structural evaluation). As appropriate, prepare multi-lingual materials that discuss hazardous structures and provide suggestions for the mitigation of structural hazards.

Action 1.14 Required geological studies shall be conducted by California Certified Engineering Geologists following the guidelines published by the California Geological Survey and the State Mining and Geology Board, and geotechnical studies shall be conducted by California Registered Geotechnical Engineers.

Action 1.15 Required liquefaction assessment studies shall be conducted in accordance with (a) the California Geological Survey's Special Publication 117: Guidelines for Evaluating and Mitigating Seismic Hazards in California, (b) the Southern California Earthquake Center's (1999 or subsequent document, as amended) procedures to implement Special Publication 117.

Liquefaction Hazards, and (c) the Earthquake Engineering Research Center's Report No. EERC-2003-6; Recent Advances in Soil Liquefaction Engineering: A Unified and Consistent Framework. Required slope stability analyses shall be conducted in accordance with California Geological Survey's Special Publication 117: Guidelines for Evaluating

and Mitigating Seismic Hazards in California, and the Southern California Earthquake Center's (2002 or subsequent document, as amended) guidelines for evaluating and mitigating landslide hazards.

Action 1.16 As required by law and statute, the City shall implement applicable federal, State, and County regulations related to earthquake hazard investigations, analyses, designs, and construction, including but not limited to the adoption of applicable sections of the current California Building Code and the County of Los Angeles Geotechnical Guidelines, and compliance with the State Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act requirements.

Action 1.17 Ensure that no structure for human occupancy, other than single-family wood-frame and steel-frame dwellings that are less than three stories and are not part of a development of four units or more, shall be permitted within fifty feet of an active fault trace as defined by geologic investigations conducted in accordance with the intent of the Alquist-Priolo Earthquake Fault Zoning Act, and the guidelines contained in the California geological survey notes 48 and 49.

Action 1.18 Encourage most new construction in areas with a minimum of identified earthquake-related and flood-related hazards.

Action 1.19 Minimize to the maximum extent practical the construction of important structures (e.g., critical, essential, sensitive, and high-occupancy buildings and critical infrastructure) within known, or suspected earthquake-related hazard zones.

Action 1.20 The City shall require geologic and seismic studies as part of Important Facilities development proposals within established 200-foot wide Fault Hazard Management Zones (FHMZ) along possible or suspected fault-related features (100-feet on either side) identified in the State Fault Evaluation Report 222 (Treiman, 1991; as shown on **Figure 5-3**), in other peer-reviewed reports (e.g., Bullard and Lettis, 1993), and in future City fault hazard management zone study reports (as applicable). Within the FHMZ along the escarpment of Bullard and Lettis (1993) investigations shall be conducted for facilities as required under the Alquist-Priolo Earthquake Fault Zoning Act (APEFZ) only if new data are developed

for an Important Facility investigation in this FHMZ or from some outside study (e.g., California Geological Survey, U. S. Geological Survey, or the Southern California Earthquake Center) that indicates this escarpment is sufficiently active to require such APEFZ-level investigations. Investigation and reporting requirements for FHMZs shall mirror those for Alquist-Priolo Earthquake Fault Zones and California Geological Survey Notes 48 and 49. FHMZs shall be updated periodically based on the results of studies conducted in the City, which may cause the FHMZs to be expanded, reduced, or removed.

Action 1.21 Where construction of important structures (e.g., critical, essential, sensitive, and high-occupancy buildings and critical infrastructure) within known, or suspected earthquake-related hazard zones is proposed, require proper geotechnical and engineering geology investigations and reports that include necessary analyses of (for example) strong ground shaking, fault rupture, liquefaction, lateral spreading, ground subsidence and slope instability, and that provide necessary design recommendations for grading and site stability, such as building setbacks, special foundation considerations, dewatering, ground improvement, and other stabilization or remediation measures.

Action 1.22 Require routine and special inspection of investigation sites (e.g., fault exploration trenches) and grading operations by properly qualified City representatives to assure scientifically adequate methods, site safety, and compatibility with approved plans and specifications.

Action 1.23 The City shall monitor engineering and scientific studies affecting development or redevelopment in areas of known or suspected earthquake-related hazards that may impact the City, and shall ensure that site-specific data, up-to-date geologic knowledge, and expert peer (independent third party) review are incorporated into the planning, design, construction, and inspection stages of important project structures (e.g., critical, essential, sensitive, and high-occupancy buildings and critical infrastructure).

Action 1.24 As required by law and statute, the City shall implement, where applicable, federal, State, and County regulations related to hydrology and flood

investigations, analyses, designs, and construction, including but not limited to continued participation in the National Flood Insurance Program.

Action 1.25 Minimize to the maximum extent practical the construction of Important Facilities (e.g., critical, essential, sensitive, and high-occupancy buildings and critical infrastructure) within potential dam failure-induced flood/inundation areas.

Action 1.26 Require proper hydrology and flooding investigations and reports that include necessary analyses of (for example) pre- and post-development flow characteristics, changes to surface drainage network, potential environmental impacts on existing development down-gradient from new construction in upstream areas, and adequacy of current and proposed culverts, debris basins, and storm drain systems.

Action 1.27 As appropriate, require new development to be designed to provide protection from potential impacts of flooding resulting from dam inundation, consistent with evolving State and federal guidelines and the City's flood plain management ordinance, and as directed by the City Engineer.

Action 1.28 Assess the level of impact on existing public facilities if flooding was to occur. Develop strategies to minimize impacts and provide continued operation of essential public facilities.

Action 1.29 Consult with public agencies that have responsibility for flood protection including but not limited to the Federal Emergency Management Agency, the Army Corps of Engineers, the California Department of Water Resources, the California Office of Emergency Services, the Los Angeles Flood Control District, and the Metropolitan Water District of Southern California regarding data, flood hazard zones, best practices, and emergency response.

Action 1.30 Consistent with Government Code Section 65302(a), annually review those areas covered by the General Plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency or the California Department of Water Resources.

Action 1.31 Establish procedures for reviewing subdivisions and other development permit applications to ensure safety from seismic and geologic hazards, including

liquefaction areas, slope stability, and ground shaking zones. The City shall retain a California certified engineering geologist(s) and a California registered geotechnical engineer(s), either on staff or on a contract basis, to review all engineering geologic and geotechnical studies and grading operations for new development or redevelopment, including but not limited to geotechnical evaluations, liquefaction studies, and fault rupture evaluations. Each reviewer shall have a minimum of 10 years of practical experience in their respective fields, shall be independent of development work being conducted in the City within 12 months before or after the subject reviews, and shall otherwise not have a conflict-of-interest regarding the project or the project participants.

Action 1.32 The City recognizes the need to consider the latest state-of-knowledge related to the earthquake analysis and considerations for the design of structures and facilities pursuant to the current version of the California Building Code. Knowledge of the sedimentary basin depth and geometry beneath the City of Rosemead are important for the proper estimation of earthquake ground motions. In addition to the amplifications and resonances caused by shallow softer alluvium, there are complex interactions between the three-dimensional geometry of the basin and the seismic waves that have been shown to increase the amplitude and duration of shaking during an earthquake. Interactions may focus the wave energy to a surface location from the bottom of the basin leading to a concentration of intensity of shaking in small regions. Likewise, the edges of basins appear to trap incoming seismic waves, thereby increasing the duration of shaking in the basin. Basin depth and geometry can be estimated using tools available through the Southern California Earthquake Center (SCEC) website, which will assist developers and City building officials in ensuring compliance with the 2-percent in 50-years event requirements in the 2007 CBC. Other information important to proper code compliance includes consideration of (a) distant large duration/large magnitude earthquakes, (b) recently developed Next Generation Attenuation (NGA) relationships, (c) ongoing updates to U.S. Geological Survey and California Geological Survey databases. The City is committed to assist in providing access to these tools

and databases to enhance the public safety in Rosemead.

Human Activities Hazard Safety

Goal 2: Ensure the safety of all City residents and workers from hazardous wastes and the hazards associated with the transport of such wastes.

Action 2.1 Coordinate with the Los Angeles County Fire Department's Health Hazardous Materials Division to identify and mitigate hazardous materials dangers.

Action 2.2 Enforce the use of designated routes for truck travel with signage, information provided to businesses and coordination with Sheriff's Department staff.

Action 2.3 Require that producers, users, and transporters of hazardous materials comply with State and federal regulations requiring identification of these materials on signs posted on the exterior of buildings or storage facilities containing such materials, and on trucks or vehicles transporting hazardous substances through the City.

Action 2.4 Coordinate with the Los Angeles County Department of Public Works to increase outreach and participation in the County's Household Hazardous Waste Collection events within the City. Increase visibility of the County's program through newspapers, the City's website, and posted information at public facilities and City-sponsored events.

Action 2.5 Prohibit new businesses that produce or transport hazardous wastes from locating in or adjacent to residential neighborhoods. Update the City's zoning ordinance to limit these businesses to industrial zones not adjacent to residential areas, and limit the permitted uses for business in or adjacent to residential areas.

Goal 3: Provide high levels of public safety, emergency response, and law enforcement services.

Action 3.1 Cooperate with the Los Angeles County Fire Department in the preparation of a Fire Prevention Program to reduce the extent of damage resulting from fire.

Action 3.2 Meet annually, if not more frequently, with County Fire Department officials to assess how services are provided and whether any changes are required in response to City and/or County needs.

Action 3.3 Use public education activities to inform residents, businesses, and City staff about community policing and crime prevention.

Action 3.4 Implement Crime Prevention through Environmental Design (CPTED) features with the establishment of specific design criteria, and apply those criteria to proposed projects through the development project review process.

Action 3.5 Continually address expected effects of climate change that may impact public safety, including increased risk of wildfires, flooding and sea level rise, salt water intrusion; and health effects of increased heat and ozone, through appropriate policies and programs.

Action 3.6 Consider adopting programs for the purchase, transfer or extinguishment of development rights in high-risk areas.

Action 3.7 Monitor the impacts of climate change. Use adaptive management to develop new strategies, and modify existing strategies, to respond to the impacts of climate change.

Climate Change Vulnerability and Adaptation

CVA Discussion

The City of Rosemead recognizes that climate change affects public safety and disaster management. According to "California's Fourth Climate Change Assessment" developed by the State of California, continued climate change will have a severe impact on

California. Increased temperatures, drought, wildfires, and sea level rise are several of the main concerns related to climate change in the Southwest. Other impacts anticipated from climate change include food insecurity, increases in vector-borne diseases, degradation of air quality, reduced ability to enjoy outdoors, and potential economic impacts due to uncertainty and changing conditions.

Climate change disproportionately affects those with existing disadvantages. Low-income communities and communities of color often live in areas with conditions that expose them to more severe hazards, such as higher temperatures and worse air quality. These communities also have fewer financial resources to adapt to these hazards. For instance, low-income populations may reduce air conditioning usage out of concerns about cost. Outdoor workers, individuals with mobility constraints, and sensitive populations such as the very young, elderly, and poor, as well as those with chronic health conditions, are particularly at risk to climate change hazards.

The Southern California Climate Adaptation Guide (SoCal APG) prepared by the Southern California Association of Governments (SCAG) in 2020, and the Climate Vulnerability Assessment prepared by Los Angeles County in 2021, are valuable resources for assessing the City's vulnerability and identifying policies and actions to adapt to changing conditions and build resiliency. The SoCal APG describes the range of climate change hazards the SCAG region is likely to face in the coming decades, describes adaptation principles geared to the region, and outlines a general process of adaptation planning. The County of Los Angeles Climate Vulnerability Assessment (CVA) addresses both physical infrastructure and social vulnerabilities. In summary, the CVA:

- Examines historic, current, and projected climate impacts to communities including extreme heat, wildfire, sea level rise, drought, and flooding.
- Gathers data on physical infrastructure and social vulnerabilities.
- Analyzes the potential cascading impacts between physical infrastructure and social vulnerabilities.
- Guides priorities for climate adaptation and resilience efforts, policies and programs.
- Informs public health preparedness, emergency preparedness, response planning, and community resiliency.
- Identifies equity implications, including how climate impacts and vulnerabilities are distributed across communities and sub-populations such as low-income rural neighborhoods, populations who are linguistically isolated, populations without housing, populations with limited mobility, and outdoor workers.

Table 5-1 provides a summary of key climate hazards and anticipated impacts facing Southern California, as well as their relevance to the City of Rosemead.

Table 5-1
Climate Change Hazards

Climate Change Hazard	Risk to Southern California	Implications for Rosemead
Extreme Heat	The SCAG region can expect longer and hotter heat waves, with continued future warming over the region.	Due to the City's high concentration of impermeable surfaces, the urban heat island effect (a condition in which cities are hotter than surrounding areas due to the amount of paving and lack of shading) may become more pronounced. At a community workshop held to inform preparation of this Element, 60% of respondents identified extreme heat as one of the hazards they were most concerned about. In addition, of 170 survey responses to this question, 29 respondents reported visiting a cooling center and 32 found an outdoor space to adapt to extreme heat.
Sea-Level Rise/Coastal Flooding	Sea-level rise is increasing the risk of coastal erosion and flooding along the California coast.	Not directly at risk but could be impacted from regional impacts to the economic, housing and mobility systems, and reduced recreational access to beaches and coastal resources.
Wildfire	Wildfire events are projected to be considerably larger, more frequent, and more destructive by mid-century.	Rosemead does not have any areas within wildfire state responsibility area (SRA) or very high fire hazard severity zones (VHFHSZs). However, residents are subject to wildfire smoke and disruption to regional systems. Of 168 survey responses to this question, 57 respondents reported that they experienced health complications due to poor air quality from wildfires, and 56 individuals were unable to attend school or work, or unable to complete daily activities as a result of air quality or power outages due to wildfires.
Drought	The SCAG region can expect more intense and extended duration of droughts, leading to longer water supply shortages. The SCAG region imports approximately three-quarters of its potable water from outside the region.	Same as regional impacts. At a community workshop held to inform preparation of this Element, 60 percent of respondents identified drought as one of the hazards they were most concerned about.
Air Quality	Air quality is expected to worsen with climate change due to higher ground level ozone concentrations and increased	Same as regional impacts.

Climate Change Hazard	Risk to Southern California	Implications for Rosemead
	particulate matter from wildfires.	
Severe Storms/Wind	Severe storms can cause injuries or deaths, cause damage to buildings, fell trees, block roads with debris, and spark fires. Strong winds, such as the Santa Ana winds, are conducive to wildfire outbreaks.	Severe windstorms pose a significant risk to life and property in the City of Rosemead by creating conditions that disrupt essential systems such as public utilities, telecommunications, and transportation routes. High winds can cause tornado-like damage to local homes and businesses in and near the community. High winds have destructive impact, especially to trees, power lines, and utility services.
Inland Flooding	Dry and wet extremes are both expected to increase with climate change. By the late-21st century, total rainfall on the wettest day of the year is expected to increase across most of the Los Angeles region.	The City's HMP identifies the entire city as being at a moderate level of probability for urban flooding to streets and underpasses from heavy rains. Flooding has not been a serious hazard to Rosemead in several decades, and the risk of disastrous flooding in the City is considered minimal. However, the potential for a localized flood event still exists and may increase due to climate change. Heavy rains in January and February of 2017 resulted in flooding to several streets and underpasses in the City of Rosemead.

Source: Southern California Climate Adaptation Guide, City of Rosemead Hazard Mitigation Plan, and County of Los Angeles Climate Vulnerability Assessment presentation of findings.

In addition, the region will face ecological impacts due to climate change. Ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement, and direct impacts. Climate change will also impact the spread of vector-borne diseases with consequences for human health. The local economy will be affected as the impacts of extreme heat, extreme weather, sea level rise, wildfire, and drought will have direct impacts on the cost and loss of critical infrastructure, real estate, human health, and productivity. It is anticipated that climate change will cause stressed supply chains and shortages of critical resources, and increased economic inequality, especially in already vulnerable populations including lower-income and marginalized communities.

Climate change impacts are interrelated, and urban areas are linked to local, regional, and global systems. When one system is affected, others may also be impacted resulting in cascading effects on other sectors that increase risks to residents' health and well-being. For example, disruptions to electricity may also impact communications, water, and transportation systems. Impacts to transportation systems may affect workforce

availability, and workforce availability may limit emergency response.

Goals and Policies

Goal 4: Effectively adapt to and increase the community's resilience to climate change impacts.

Objective: Conduct proactive hazard and emergency preparedness planning

Policy 4.1 Consider climate change impacts when preparing or updating emergency response and preparedness plans.

a. Develop an emergency shelter plan that includes addressing the need for cooling centers during extreme heat events.
b. Educate residents on how to protect themselves from poor air quality during wildfire events affecting the region.
c. Evaluate the need for battery or other back-up power systems for communications systems, emergency shelters and key facilities.

Policy 4.2: Regularly update the Hazard Mitigation Plan to continue to protect the community as local conditions change, and to maintain eligibility for grant funding.

Policy 4.3: Coordinate with neighboring jurisdictions, county, regional, state, and federal agencies on climate adaption, resource management, emergency management, and risk reduction planning and activities. See also Public Safety Element Policy 1.4.

Policy 4.4: Ensure that the latest versions of the adopted Building and Fire Codes are adopted and enforced. See also Public Safety Element Policy 3.1 and Land Use Element Actions 5.11 – 5.19.

Policy 4.5: Promote preparedness for City staff, businesses and residents that empowers them to increase their resilience to hazard related events and a changing climate.

Policy 4.6: Reduce the impacts of extreme heat on people and the electric grid through measures such as increasing urban tree planting, and implementing

cool roofs and pavement materials. See also Land Use Element Actions 5.7 – 5.8.

Objective: Coordinate land use, climate, and Capital Improvement Planning

Policy 4.7: Incorporate best available data and understanding about the impacts of a changing climate into decision making.

Policy 4.8: Incorporate resiliency measures and adaptation strategies into capital improvement planning and other investment decisions.

a. Pursue resiliency measures which may include but are not limited to green infrastructure that reduces flooding, adaptation of stormwater systems, and tree planting for increased shade.
b. Locate, when feasible, essential public facilities outside of at-risk areas, or identify construction methods or other methods to minimize damage if these facilities are located in at-risk areas.
c. Prioritize investments that protect vulnerable communities.

Policy 4.9: Design adaptation initiatives and programs to provide multiple co-benefits, including reduction in greenhouse gas emissions, support for the local economy, enhancements to the natural environment, or alleviating underlying health inequities.

Objective: Achieve meaningful community engagement

Policy 4.10: Commit to ongoing community engagement and dialogue to help identify or refine local information on the needs of vulnerable populations and assets as conditions change.

Policy 4.11: Build partnerships with public, private and nonprofit sectors to provide services to residents as needed, and foster community connections.

Implementation Actions

Action 4.1 Integrate the results and applicable adaptive policies of the County of Los Angeles Climate Vulnerability Assessment into City planning and emergency preparedness documents where appropriate, as new information becomes available. Documents to review for periodic updates include the: Emergency Response Plan, Hazard Mitigation Plan, Zoning Ordinance, and other applicable codes.

Action 4.2 Strengthen climate resiliency through building and zoning codes.

a. Evaluate landscaping and design regulations and guidelines for effect on providing shade for pedestrians, and amend as needed.
b. Consider an urban tree canopy ordinance that includes guidance and standards for proper tree pruning to preserve the structural integrity of trees, including the prohibition of tree-topping which weakens tree structures and increases their susceptibility to limb loss during high wind events.

Action 4.3 Monitor, evaluate, and adjust plans and implementation strategies as needed as conditions change over time. See also Action 3.7.

Action 4.4 Pursue grant and funding opportunities to provide financial assistance or reduced cost for energy retrofits or installation of other adaptation measures to help protect low-income, senior citizens, and other vulnerable residents against extreme heat events.

Action 4.5 Evaluate Los Angeles County emergency evacuation plans and refine as needed to meet local needs. Include provisions for evacuating people that have mobility constraints and identify the role of transit providers in providing evacuation assistance.

Action 4.6 Enhance local emergency warning systems to include alerts for high-heat days, including instructions for location of resiliency hubs, shelters and self-care steps.

Environmental Justice

Environmental justice is the movement to recognize and ameliorate the disproportionate and unfair burden of environmental pollution and other toxins faced by low-income communities and communities of color. In 2016, Senate Bill 1000 was signed into law which requires local jurisdictions that have disadvantaged communities to incorporate environmental justice policies into their general plans. For the purpose of general plan requirements, environmental justice is defined as: “the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (California Government Code Section 65040.12). Residents living in or near

neighborhoods with high levels of pollution are at an increased risk for developing respiratory diseases, such as asthma, and cardiovascular diseases, such as stroke. Pregnant women living in highly polluted neighborhoods are also at an increased risk for experiencing poor birth outcomes, such as preterm birth. The environmental justice movement is intended to address these types of inequities by addressing the specific environmental hazards faced by disadvantaged communities.

Identification of Disadvantaged Communities

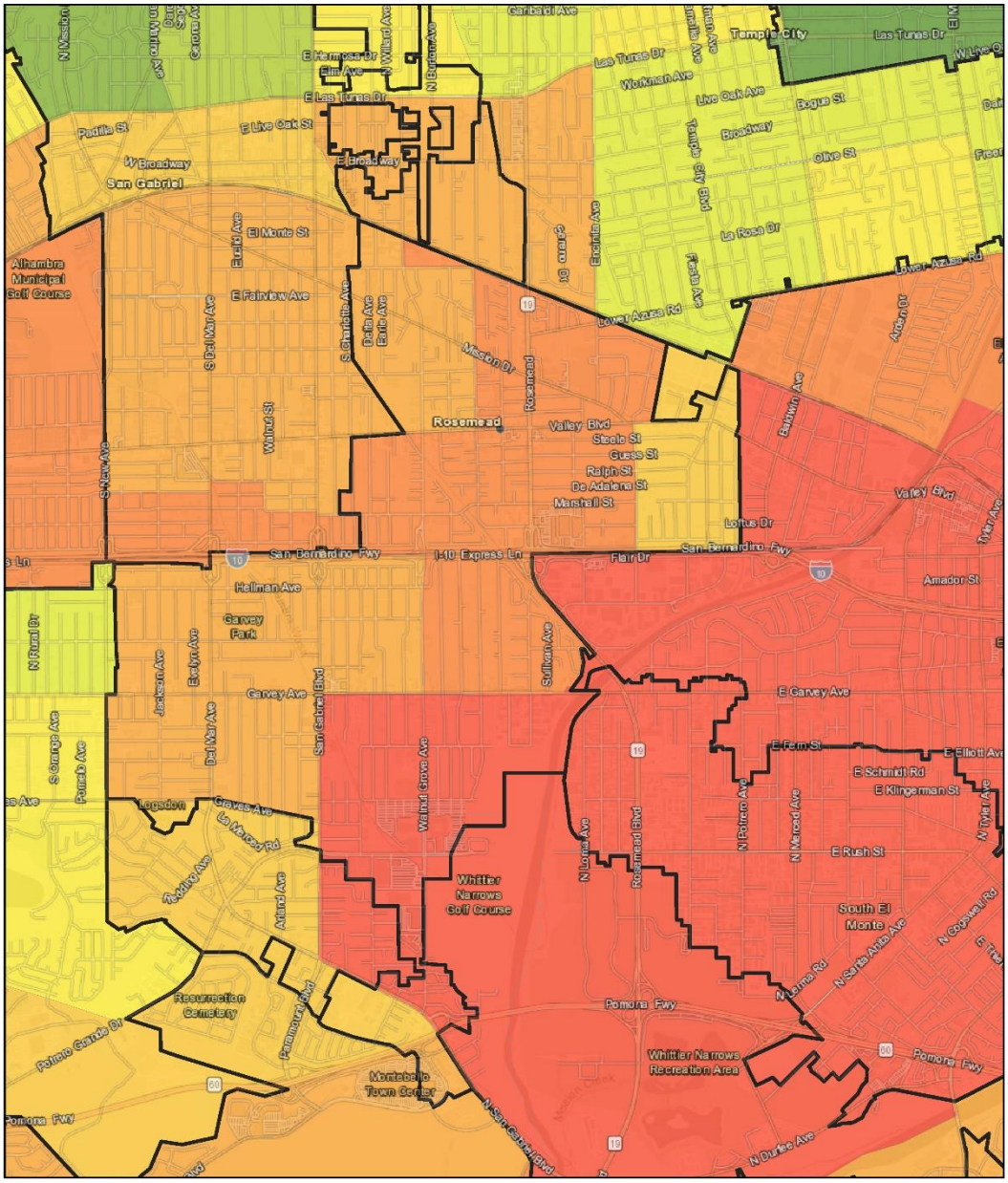
SB 1000 defines "disadvantaged communities" as areas identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or as an area that is low-income that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation. To assist in identifying disadvantaged communities, the State has provided a mapping tool called "CalEnviroScreen." CalEnviroScreen uses several factors, called "indicators" that have been shown to determine whether a community is disadvantaged and disproportionately affected by pollution. Pollution burden indicators measure different types of pollution that residents may be exposed to, and the proximity of environmental hazards to a community. Population characteristics represent characteristics of the community that can make them more susceptible to environmental hazards.

CalEnviroScreen provides an overall percentile score determined by combining weighted individual scores for all the individual indicators analyzed. SB 1000 considers a 75 percent or higher score in this category to be a qualifier for consideration as a disadvantaged community. The overall scores are represented in a statewide map, with red representing the highest percentile range and green representing the lowest. Areas with higher scores generally experience higher pollution burdens and fare more poorly on a range of health and socioeconomic indicators than areas with low scores. Census tracts in Rosemead score between 60 and 90 percent overall for pollution, with 9 of the 16 census tracts within the 75 percent or above category.

The majority of the City of Rosemead is considered a disadvantaged community based on the CalEnviroScreen scores. As a disadvantaged community, Rosemead is eligible for the State's Greenhouse Gas Reduction Fund (SB 535 and AB 1550) set aside funding. **Figure EJ-1** shows CalEnviroScreen 4.0 results, and **Figure EJ-2** shows Rosemead's SB 535 Disadvantaged Communities.

The Housing Element of the General Plan provides additional context necessary for understanding environmental justice needs in the City of Rosemead by providing an assessment of the City's demographic and socioeconomic characteristics. The City is a majority-minority area, with Asian community members comprising 61.7 percent of the population and Hispanic/Latino of any race individuals making up 32.6 percent. With respect to household income, a majority of the City's population is comprised of households that are within either the 60-75 percent Low to Moderate Income (LMI) group, or the 75-100 percent LMI block groups.

Environmental justice and social equity goals relate closely to policies supporting healthy communities. The physical environment, as well as the conditions in the environments in which people are born, live, learn, work, play, and age (collectively known as the social determinants of health) have a profound effect on how healthy people are over the course of their lives. Accordingly, communities that have open space and recreational opportunities, high quality and affordable housing, and safe multi-modal transportation options, as well as access to resources such as affordable healthy foods, medical services, living-wage jobs, and quality educational services experience better health outcomes.



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City/Town Boundaries

(A) CalEnviroScreen 4.0, 2021 - Tract

- 11 - 20%
- 21 - 30%
- 31 - 40%
- 41 - 50%
- 51 - 60%
- 61 - 70%
- 71 - 80%
- 81 - 90%
- 91 - 100% (Highest Scores)

1:36,112

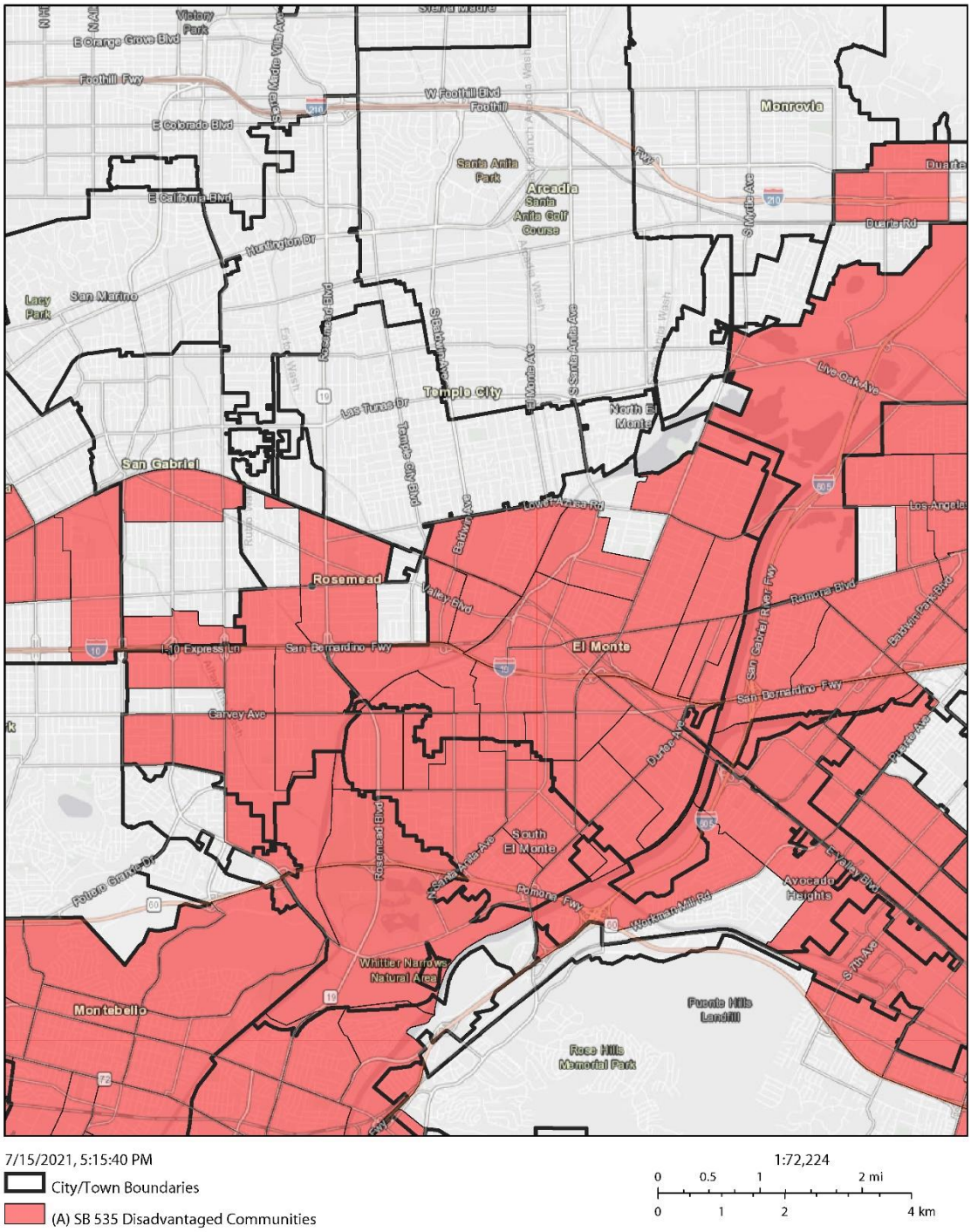
0 0.33 0.65 1.3 mi

0 0.5 1 2 km

Figure EJ-1

CalEnviroScreen 4.0 Results
City of Rosemead

Source: California Office of Environmental Health Hazard Assessment and California Department of Housing and Community Development, AFFH Data and *Mapping Resources*, https://affh-data-resources-cahcd.hub.arcgis.com//



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City/Town Boundaries

(A) SB 535 Disadvantaged Communities

1:72,224

0 0.5 1 2 mi

0 1 2 4 km

Figure EJ-2

SB 535 Disadvantaged Communities Map
City of Rosemead

Source: California Department of Housing and Community Development, AFFH Data and Mapping Resources, *https://affh-data-resources-cahcd.hub.arcgis.com//*

General Plan Interrelationships

Environmental justice is an interdisciplinary issue that is addressed in multiple elements of the City's General Plan, as shown in **Table 5-2**. However, specific environmental justice discussion, goals and policies are provided in the Public Safety Element to provide a focus on the City's environmental justice efforts.

Table 5-2
Environmental Justice in the General Plan

Environmental Justice (EJ) Topic	General Plan Element	EJ Area of Focus
Overview	Introduction	The General Plan vision expressed as "Envision Rosemead" is for the City to become a place "where people have many options for housing, employment, shopping, and recreation; where businesses create a strong economic foundation for high quality municipal services; where parks and recreational facilities offer opportunities for a diverse population to exercise and interact; where schools and teachers educate and inspire youth; and where the natural environment is protected and enhanced." A specific vision is identified to "enhance parks and recreational space in underserved neighborhoods."
Population and Socioeconomic Characteristics	Housing	Identifies overall demographics and includes analysis of minority, low-income, cost-burdened, and special needs households. These populations often face a greater exposure to pollution and vulnerability to climate hazards and lack resources to adapt.
Affirmatively Furthering Fair Housing (AFFH)	Housing	Section 2.I, Program 12, and Appendix D provide a comprehensive assessment of fair housing issues and meaningful actions. EJ goals overlap with AFFH goals as both initiatives are concerned with addressing inequities and fostering opportunities.
Pollution Exposure	Public Safety – EJ Section	Goal 5 and related policies address pollution exposure and climate vulnerability.
		Actions prohibit new businesses that produce or transport hazardous wastes from locating in or adjacent to residential neighborhoods.
	Resources Management	Goal 1 and related policies are to provide high-quality parks, recreation, and open space facilities to meet the needs of all Rosemead residents. Policy 1.3 addresses underserved needs.
		Goal 3 and related policies are to manage the use of and protect water resources, including eliminating groundwater and urban runoff pollution.

Environmental Justice (EJ) Topic	General Plan Element	EJ Area of Focus
		Goal 4 addresses air quality and energy conservation and includes Policy 4.1 to integrate air quality planning with City land use, economic development, and mobility planning efforts.
	Land Use	Policy 4.3 is to exclude commercial and industrial activities that adversely impact the City and its residents without providing corresponding benefits.
Public Facilities	Land Use	Makes connections between the City's economic health and the availability of public facilities and services.
	Public Safety	Addressed comprehensively, with the Goal 6 section focusing on facilities from an EJ perspective.
	Resources Management	Goal 1 calls quality parks, recreation, and open space facilities to meet the needs of all Rosemead residents. See also the Physical Activity row below.
Food Access	Public Safety – EJ Section	Goal 5 includes a subsection supporting access to healthy food.
Safe and Sanitary Homes	Housing	The provision of safe, sanitary and affordable housing is addressed throughout the Element.
	Land Use	Fosters mixed-use and transit-oriented development along major corridors to provide opportunities for higher density residential development and enhanced economic development.
	Public Safety	Policies under Goal 3 are to further community policing, education, and crime prevention programs through the County Sheriff's Department.
Physical Activity	Introduction	The General Plan focuses on the connections between residential neighborhoods and adjacent commercial centers that may lead to a healthier lifestyle for residents by creating opportunities to walk within the City that did not exist before.
	Circulation	Goal 2 plus related policies and actions support development of infrastructure and services for active modes of travel including pedestrian and bicycle access, and strives for connectivity and amenities.
	Land Use	Goal 3 and associated policies promote pedestrian-friendly mixed-use projects with public spaces and lively street fronts where people can meet and interact.
	Resource Management	Plans for parkland and recreational open space. Goal 1 is to provide parks, recreation and open space to meet the needs of all residents. Policy 1.3 is to look for opportunities to establish public parks and other useable open space areas in those parts of Rosemead underserved by such facilities.

Environmental Justice (EJ) Topic	General Plan Element	EJ Area of Focus
		Goal 2 is to increase greenspace throughout to improve community aesthetics, encourage pedestrian activity and provide passive cooling benefits. Action 2.8 is to connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.
	Land Use	Action 5.20 supports bicycle and walking access.
Civic Engagement	Housing	Section 1.E describes the importance of public input and how it influenced policies and programs.
	Public Safety	Addresses equitable and effective civic engagement. Including Goal 6 and associated policies. Goal 4 includes policies for community engagement related to climate vulnerabilities.
	Resource Management	Action 1.5 is to emphasize the need for citizen participation in reducing vandalism in City parks through the City's Neighborhood Watch programs.
Needs of Disadvantaged Communities	Public Safety – EJ Section	Identifies Rosemead's disadvantaged community areas and addresses issues through Goals 5 and 6 and associated policies and actions.
	Land Use – Goal 5 and Actions	Sets forth targeted land use changes that improve housing and economic opportunities. Calls for green buildings, energy and water efficiency and shade producing trees, and developing a heat island mitigation plan.
	Resource Management	Goal 2 calls for increased greenspace throughout Rosemead to improve community aesthetics, encourage pedestrian activity, and provide passive cooling benefits.

Environmental Justice (EJ) Topics

Pollution Exposure

Pollution exposure occurs when people interact with contaminants in the air, food, water, and soil. These contaminants and pollution sources do not impact everyone equally. Vulnerable populations (such as children, older adults, low-income families, people with chronic health conditions, and outdoor workers) and sensitive land uses (such as schools, housing, parks, medical facilities, senior living, and childcare facilities) are more susceptible to pollution exposure impacts. EJ communities are disproportionately impacted by multiple pollution sources, including toxic gas emissions from solid waste facilities, mobile and stationary sources such as vehicle and diesel engine exhaust, hazardous chemicals contaminating groundwater and soil from leaking storage tanks. EJ communities as well as individuals experiencing homelessness and outdoor workers, are also often more at risk to climate change hazards. For example, in a survey

conducted to inform preparation of this Element, 27 of 165 respondents to this question indicated that they had a disability that would affect their ability to travel to an air-conditioned place during an extreme heat emergency.

California Government Code Section 65302(h) mandates that the EJ Element assess the "unique or compounded health risks" due to pollution exposure in EJ communities and focuses on pollution sources related to air pollution, groundwater contamination, and toxic and hazardous materials. The California Healthy Places Index (HPI) Clean Environment Score is a composite measure of pollution that was developed by the Public Health Alliance of Southern California. It is based on the average levels of four common environmental pollutants used in the California Environmental Protection Agency's CalEnviroScreen 3.0 tool. The system uses a zero to 100 scale, with 100 representing the lowest pollution burden.

The Rosemead Health Profile prepared the Los Angeles County Department of Public Health as a part of its *City and Community Health Profiles* series, reported that the City of Rosemead scored in the 29th percentile, meaning that Rosemead faces a relatively high pollution burden. The Health Profiles also addressed indoor air quality, with findings that poor air quality indoors may be related to building materials, emissions from fireplaces and stoves, or tobacco use, and that cities and communities can play a vital role in supporting public health efforts to reduce the toll of smoking and other forms of tobacco use. The Rosemead Municipal Code (RMC) prohibits the use of tobacco on Public Parks (RMC 12.44.050) City Buildings including City Hall, Community Center, Zapopan Community Center, and park offices, (RMC 2.44.060), and Skate Plaza (RMC 10.20.040).

Public Facilities

EJ communities may lack adequate access to public facilities necessary to promote a healthy quality of life. SB1000 refers to public facilities as "public improvements, public services, and community amenities" pursuant to California Government Code Section 66000. This includes a variety of public buildings and infrastructure, such as community centers, schools, parks, and open space, and emergency services. The prevalence of these public facilities plays an important role in providing residents amenities and services that enhance community resilience, health, and wellbeing.

The City's Capital Improvement Program (CIP) allocates resources to improve and maintain the public infrastructure and aesthetics of the community through identification of projects and associated funding sources. The CIP also identifies needed projects for which funding is not available. The City's 2020-21

budget was severely impacted by the national and state financial environment, as well as local impacts resulting from COVID-19 emergency measures, which makes it challenging to meet public facilities needs. Based on survey results, a majority (53%) of respondents either strongly agreed, or agreed that the condition of neighborhoods (streetlights, sidewalks, parks, etc.) is the foremost challenge facing the community.

The Land Use Element describes how land use policies can create business and employment opportunities to strengthen the City's economic health and provide funds necessary to provide desired public facilities and services. Adoption of the Garvey Avenue Specific Plan in 2018 exemplifies this strategy. The Garvey Avenue Specific Plan is intended to transform key pockets of Garvey Avenue into active pedestrian and retail areas with a wide mix of uses to serve a variety of needs and stimulate a range of environments.

Physical Activity

Physical activity has a direct impact on the long-term health and wellbeing of Rosemead residents. People who are physically active tend to have a higher life expectancy and lower risk for certain diseases. People participate in physical activities in many different forms and for different purposes, including recreational, health, and active transportation and commuting. Engaging in regular physical activity can also bring social and emotional benefits, such as social interaction and building community with others which helps to reduce depression, isolation, stress, and anxiety.

One of the issues facing Rosemead is the availability of open space and parkland to residents for passive and active recreation. The Resource Management Element serves as a plan for parkland and recreational open space in Rosemead. The City also promotes active living through General Plan policies supporting active modes of travel and fostering a pedestrian-friendly streetscape. City parks, open spaces, bike routes and community centers are shown in the General Plan Resource Management Element, **Figure 4-1**.

Food Access

Food is essential to the health, economy and culture of a sustainable and thriving community, making access to healthy and affordable food sources a necessary component for measuring the quality of life. Food access is not only linked to the physical accessibility of affordable food but also the sense of security that food is readily available. For example, the City of Rosemead's Senior Nutrition Program helps increase food security for the City's seniors.

Increasing physical activity and improving access to healthy foods are two important ways to improve the health of community residents. Being physically active and eating healthy are often considered lifestyle choices that are under the control of individuals, but these "choices" are strongly influenced by community environments. For example, it is difficult for people to be physically active if their communities do not have safe places for recreation. Likewise, it is challenging for people to have a healthy diet if they have limited access to nutritious and affordable food options. The Rosemead Health Profile reports that 73 percent of Rosemead residents live within a half mile of a supermarket or grocery store. For Los Angeles County as a whole, the number is 62 percent. In response to a question included in a survey conducted to inform development of this Element, 26 of 162 respondents reported that they sometimes or frequently experienced food insecurity, and another 43 reported that they rarely had that experience.

Safe and Healthy Homes

The condition, quality and affordability of housing have significant impacts on the health, safety and well-being of Rosemead residents in an environmental justice context. Numerous factors, such as hazardous building materials, exposure to excessive heat or cold, poor air quality and filtration, and moisture and mold from flooding or inadequate building maintenance can lead to severe and negative health outcomes. Some EJ community residents live in housing units that were built before established regulations about removing pollutants such as lead paint and asbestos. Unsafe and unsanitary housing conditions can also indicate inadequate or incomplete kitchen and plumbing facilities. The City of Rosemead has a proactive code enforcement program to address and provide remedies to substandard housing conditions, as discussed in the Housing Element.

Housing burden can negatively impact health by causing significant stress and limiting the amount of money people have available to spend on other necessities, such as food, healthcare or recreation. High costs related to owning or renting a home, along with a comprehensive set of policies and programs addressing affordable housing are discussed in the Housing Element. The impact of a high cost of housing is described as "cost burden." A household is considered cost burdened if it spends more than 30 percent of its income in housing costs, including utilities. Reducing housing cost burden can also help foster more inclusive communities and increase access to opportunities for persons of color, persons with disabilities, and other protected classes. As stated in the Housing Element, many Rosemead households experience a high cost burden, with 23.3 (3,420) percent of all

households paying more than 30 percent to less than 50 percent, and 23.5 percent (3,445) paying more than 50 percent of the household's income on housing costs. The Housing Element includes goals for increasing the provision of affordable homes suitable for a range of incomes and life stages. In a survey conducted to support development of the Housing Element, 80 percent of respondents felt that the City needed more multi-family housing.

Civic Engagement

Equitable and effective planning and decision-making processes, especially for EJ issues, should meaningfully involve the most impacted community members. Promoting civic engagement is imperative for jurisdictions to prioritize improvements and programs in EJ communities. This level of engagement can help strengthen community involvement and deepen the investment of stakeholders in identifying and realizing community improvements. EJ issues can be more organically identified and resolved if there are accessible and culturally relevant opportunities to engage in decision-making processes prioritizing low-income communities, communities of color, and linguistically isolated communities. Also, providing timely and updated information for how residents can reach relevant and appropriate staff from the City as well as other agencies can be an important step towards transparency and accountability across programs and services.

Rosemead has a wide range of organizations providing services to its residents; these organizations may be effective partners to collaborate with on future public engagement efforts. At a community workshop held to support development of this Element, 60 percent of respondents identified "youth services and opportunities" and "senior resources and opportunities" as top strengths and assets in Rosemead, with respect to social service resources.

Needs of Disadvantaged Communities

It is important to prioritize projects, programs, and investments that directly serve and benefit residents within EJ communities. Due to historical, geographic, and procedural inequities, EJ communities have specialized needs and priorities that require intentional actions to improve existing conditions and to ensure negative impacts are not exacerbated. Effective prioritization requires coordination and alignment across government agencies, departments, and shared jurisdictional partners along with consistent and sustained engagement with EJ community stakeholders.

To identify opportunities for improving health and reducing health inequities, the Public Health Alliance of Southern California collaborated with national, state, and local public health experts to develop a single composite measure that summarizes the health of a community, referred to as the California Healthy Places Index (HPI). The index is calibrated to correlate with life expectancy. In addition to environmental factors, it takes into account the diverse non-medical economic, social, and political factors that influence physical and mental function, behavior and disease. In total, the index combines 25 community characteristics into a single composite HPI score. For the *City and Community Health Profiles* series, the HPI score was recalculated for jurisdictions and assigned a percentile rank to facilitate comparison among cities and communities within Los Angeles County. As reported in the Rosemead Health Profile, the City ranked in the 17th percentile, which places it among communities with fewer healthy community conditions.

Goals and Policies

Goal 5: Ensure the availability of a healthy environment for all people.

Objective: Reduce pollution exposure and climate vulnerability

Policy 5.1: Work with the South Coast Air Quality Management District to meet State and federal ambient air quality standards in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.

Policy 5.2: Encourage smoke-free workplaces, parks, and other community spaces to reduce exposure to second-hand smoke.

Policy 5.3: Educate, and if possible, provide subsidies, to residential property owners to retrofit properties affected by adverse air quality with air filters, ventilation systems, landscaping or other measures.

Policy 5.4: Educate residents on how to protect themselves from extreme heat, and smoke exposure during wildfire events, and additional climate vulnerabilities as discussed under Goal 4 of this Element.

Objective: Provide healthy and secure food access

Policy 5.5: Support provision of convenient access to healthy foods in all neighborhoods and districts.

Policy 5.6: Promote statewide efforts to expand usage of food assistance benefits (e.g., CalFresh, WIC, and Market Match) at farmers' markets and local retailers.

Policy 5.7: Support the operation of existing and future farmers' markets in the City.

Policy 5.8: Encourage healthy food options at all municipal buildings and at City events where food is made available by the City.

Policy 5.9: Support private sector actions of existing liquor stores, convenience stores, and ethnic markets to stock fresh produce and other healthy foods.

Policy 5.10: Encourage participation in community edible gardens where appropriate.

Objective: Provide safe, sanitary, and affordable homes and communities

Policies: See the Housing Element for a full range of policies and programs.

Policy 5.11: Adopt planning programs, such as specific plans and zoning amendments, to improve environmental quality, and strengthen economic and educational opportunities.

a. Address the needs of those who may not have been represented in the public process.
b. Foster transit-oriented development that provides access to local and regional opportunities and strengthens community development.

Objective: Citywide opportunities for safe and healthy physical activity

Policy 5.12: Continue to maintain and, if possible, expand the public park system, promote use of bicycles, and encourage day and evening pedestrian activity through improved sidewalks and lighting.

Policy 5.13: Incorporate Complete Streets principles into all transportation projects at all phases of development, including planning and land use decisions, scoping,

design, implementation, maintenance, and performance monitoring.

Policy 5.14: Increase the City's urban tree canopy cover to contribute to an attractive and comfortable pedestrian environment, and maximize additional co-benefits of trees, such as, capturing particulate matter pollution, and reducing urban heat, energy use and urban runoff.

Policy 5.15: Provide a variety of parks, facilities, and programs to meet the recreational needs of a diverse population, including children, teens, adults, persons with disabilities, elderly, and visitors.

Implementation Actions

Action 5.1: Review proposed zoning code amendments for their impact on EJ goals and policies.

Action 5.2: Prioritize environmental justice needs when formulating and adopting the City's budget and Capital Improvement Plan.

Action 5.3: Ensure that development projects are reviewed for conformance with EJ policies as a part of the discretionary review process.

Goal 6: Fair treatment and meaningful participation of populations and communities most impacted by environmental hazards.

Objective: Effective and equitable public engagement

Policy 6.1: Proactively and meaningfully engage community residents in the planning and development process by using culturally appropriate and accessible channels, including: providing appropriate language services; providing child care; holding meetings, focus groups, or listening sessions at a variety of venues throughout the community; and using participatory facilitation techniques.

Policy 6.2: Consult with California Native American tribes to provide them with an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to cultural places.

Policy 6.3: Facilitate the meaningful participation of community residents, businesses, and organizations in the development, adoption, and implementation of planning, public facilities and built environment initiatives, and consider their input throughout the decision-making process.

Policy 6.4: Foster collaborative partnerships, including with public health professionals and other public and private sector stakeholders, to develop and implement EJ-related initiatives.

Objective: Equitable provision of public facilities and services

Policy 6.5: Prioritize and allocate citywide resources to provide public facilities and services to communities in need.

a. Allocate greater resources to communities where greater needs exist.
b. Foster public and private investments in vulnerable communities that increase economic opportunity and environmental quality.
c. Pursue grant funding for investments that increase the resiliency and adaptive capacity of low-income households and communities.

Policy 6.6: Provide equal access to public facilities and infrastructure for all community residents.

Policy 6.7: Plan and design projects, including City Capital Improvement Program (CIP) projects, to consider current and planned adjacent land uses, local transportation needs, and climate change vulnerabilities, while incorporating the latest and best practice design guidance. See also Goal 4 policies.

Policy 6.8: Coordinate with regional planning and transportation agencies to provide high quality public transit services in the City of Rosemead.

Policy 6.9: Collaborate with others to educate residents on how to conserve water and minimize impacts of drought.

Implementation Actions

Action 6.1: At public meetings and outreach events provide appropriate language services, childcare, and options for live or delayed online participation.

Action 6.2: Design Capital Improvement Projects to achieve EJ goals and strengthen climate resiliency.

Action 6.3: Share the results of public outreach with decision-makers to help inform their actions.

Action 6.4: Seek funding for plans and projects to strengthen resilience in vulnerable neighborhoods.

Action 6.4: Collaborate with others to increase social networks and website updates to distribute information on climate change and other threats to vulnerable populations. Include information on actions people can take to reduce exposure and increase resiliency.

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