

# SOUTH GATE GENERAL PLAN 2035

## SAFETY ELEMENT



March 13, 2018



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# INTRODUCTION

According to California Government Code Section 65302(g) (1), “[The General Plan must include a] safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunamis, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.”

A basic and important responsibility of a local government is to protect the safety and well-being of community members. One of the ways the City of South Gate fulfills this responsibility is through its General Plan. The General Plan, which is required by state law (California Government Code Section 65300), guides the long-term physical development of the city and reflects the community's intentions about land use, pedestrian and vehicular circulation, housing, conservation, open space, noise, and safety. The Safety Element of the General Plan sets forth long-range city goals, policies, and actions to protect people and property from natural and human-caused hazards.

## Purpose and Scope

California law requires that all communities prepare a Safety Element as part of their General Plan. As required by state law, this Safety Element identifies the natural and human-caused events that may reasonably result in injury, death, and/or damage to public and private property. This element presents existing public safety conditions in the City, and is organized to address the following:

- Land Use and Development Patterns
- Facilities and Services
- Emergency Response
- Disaster and Evacuation Routes
- Drought
- Seismic hazards (earthquakes and fault rupture, liquefaction, and landslides)
- Flood
- Dam inundation
- Extreme heat

- Severe weather (hail, severe wind, and tornadoes)
- Disease/pest management
- Urban fires
- Hazardous materials
- Airport operations hazards
- Terrorism and civil disturbances

This element is organized to be consistent with the other elements of the South Gate General Plan. Goals, objectives, policies, and implementation actions are the essence of the element, providing declarative statements setting forth the City's public safety approach. These components of the element guide decision-making, as follows.

- **Goal:** General statement of desired community outcomes, identifying long-term direction.
- **Objective:** Specific statement of desired outcomes that help to achieve a goal.
- **Policy:** Statements that achieve objectives by mandating, encouraging, or facilitating certain actions. Policies provide guidance to the City Council, City advisory committees, and City staff when reviewing development applications and making other decisions that affect future growth, conservation, and development.
- **Implementation Action:** Specific programs, actions, projects, or tasks (consistent with adopted policy) that the City will undertake to achieve and implement the element.

## Related Plans

### General Plan

As an adopted element of the General Plan, the Safety Element is consistent with and supports the other General Plan elements. Besides the Safety Element, the Public Facilities and Services Element (police and fire services), Healthy Community Element (safety and emergency preparedness), and Green City Element (climate change) also address safety and hazards-

related issues as identified in the parentheses. Where relevant, the Safety Element references key goals and policies from across the General Plan that address public safety. This element also summarizes key issues on land use and development patterns addressed elsewhere in the General Plan. This context serves to identify vulnerabilities and support the public safety goals, policies, and actions in this element.

## Local Hazard Mitigation Plan

*The City's Safety Element of the General Plan is integrated with its Local Hazard Mitigation Plan, ensuring a coordinated approach to public safety and qualifying the City for additional funding opportunities (consistent with California Government Code Section 65302.6).*

Public safety planning generally focuses on how an agency or community members will prepare for, respond to, and/or recover from a disaster. Hazard mitigation planning focuses on how the impact of a disaster might be lessened. The City has updated and adopted the South Gate Local Hazard Mitigation Plan (LHMP) alongside this Safety Element. The LHMP includes an assessment of the City's risk related to natural hazard impacts such as drought, seismic events, extreme heat, and flooding. The LHMP also includes a comprehensive set of actions the City will complete to mitigate, or reduce, the impacts of those hazards.

The LHMP risk assessment is the primary analysis used to support this Safety Element. Where required by statute, information and figures from the LHMP are repeated in this Safety Element. In other cases, LHMP data or figures are included by reference. The mitigation actions in the LHMP are included in this Safety Element as a subset of the element's overall implementation program.

On January 1, 2017, Government Code Section 65302 was amended by Senate Bill 379, requiring the Safety Element to address climate adaptation and resiliency strategies applicable to the City. The Local Hazard Mitigation Plan prepared in support of this Element complies with these requirements and is integrated into this Element as a foundation of many of the goals and policies proposed to increase resiliency in the City.

# EXISTING CONDITIONS

State law requires the Safety Element to address the characteristics of the community that may determine impacts from a hazardous event. To address these topics, the following sections summarize land use and development patterns, natural hazards, man-made hazards, and emergency response capacity.

## Land Use and Development Patterns

The City of South Gate is largely built out and is constrained from growth on all sides. Growth in the City will occur as the result of developing underutilized parcels. Development is anticipated along major corridors, with higher densities of both residential uses and employment-generating activities. The Community Design Element of the General Plan presents the City's strategy to concentrate major activity centers, mixed-use corridors, and residential corridors along existing major roadways. This intensification of land uses will provide opportunities for transit-oriented development and alternative travel. Higher levels of density along major roadways could also increase potential exposure of people and workers to air pollution from vehicles, in addition to heightened exposure to human-caused hazards due to traffic fatalities and the transport of hazardous materials. The intensification and mixing of uses has many benefits, but must consider public safety considerations to optimize these benefits. The City also has two specific plans to guide development in individual locations in a more focused area: the Tweedy Boulevard Specific Plan for Tweedy Boulevard between Alameda Street and the Los Angeles River, and the Hollydale Specific Plan for the extreme southeast corner of the City.

## Facilities and Services

The City of South Gate provides numerous services and facilities that support the functions of the community. Where the City does not directly provide these services, other utilities and service providers help to deliver key resources to the community. Interruption to service may occur in the event of a disaster, requiring planning and creation of contingency plans to meet the needs of the community. Additional information on public



facilities (water, wastewater, stormwater) and services (police, fire, schools, solid waste) is in the Public Facilities and Services Element of the General Plan.

In the event of a hazard, critical facilities provide important services to the community and can serve as staging areas for response and recovery activities.

## Critical Facilities

South Gate is served by a number of critical facilities that provide important services to the community. These facilities support a range of government functions and utility service needs. Some of these facilities can also serve additional roles during an emergency situation, such as serving as a shelter for displaced residents or as staging areas for emergency response and recovery activities. Critical facilities also include bridges that provide important transportation and evacuation routes. Damage to these facilities can impair response and recovery operations, and may lead to a disruption of vital services for South Gate residents. **Figure SE-1** provides a map of critical facilities and bridges in the community.<sup>1</sup>

## Emergency Services Agencies and Organizations

City departments and external agencies play a role in emergency preparedness and response. The Public Facilities and Services Element of the General Plan provides additional information on local police services, fire services, utilities, and other public services. Critical information for the Safety Element is presented below.

### South Gate Police Department

South Gate operates its own Police Department. Police staff in South Gate helps to develop and implement actions to improve emergency preparedness, including conducting education and outreach. Staff also conducts emergency response activities and contributes to disaster recovery. The Police Department has mutual aid agreements with surrounding police agencies, as needed, for disaster response.

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<sup>1</sup> The critical facilities in Figure SE-1 were identified by the Local Hazard Mitigation Planning Team in 2015. The team also identified additional confidential facilities. These facilities are kept under separate cover for internal use by the City of South Gate.

## South Gate Water Utility

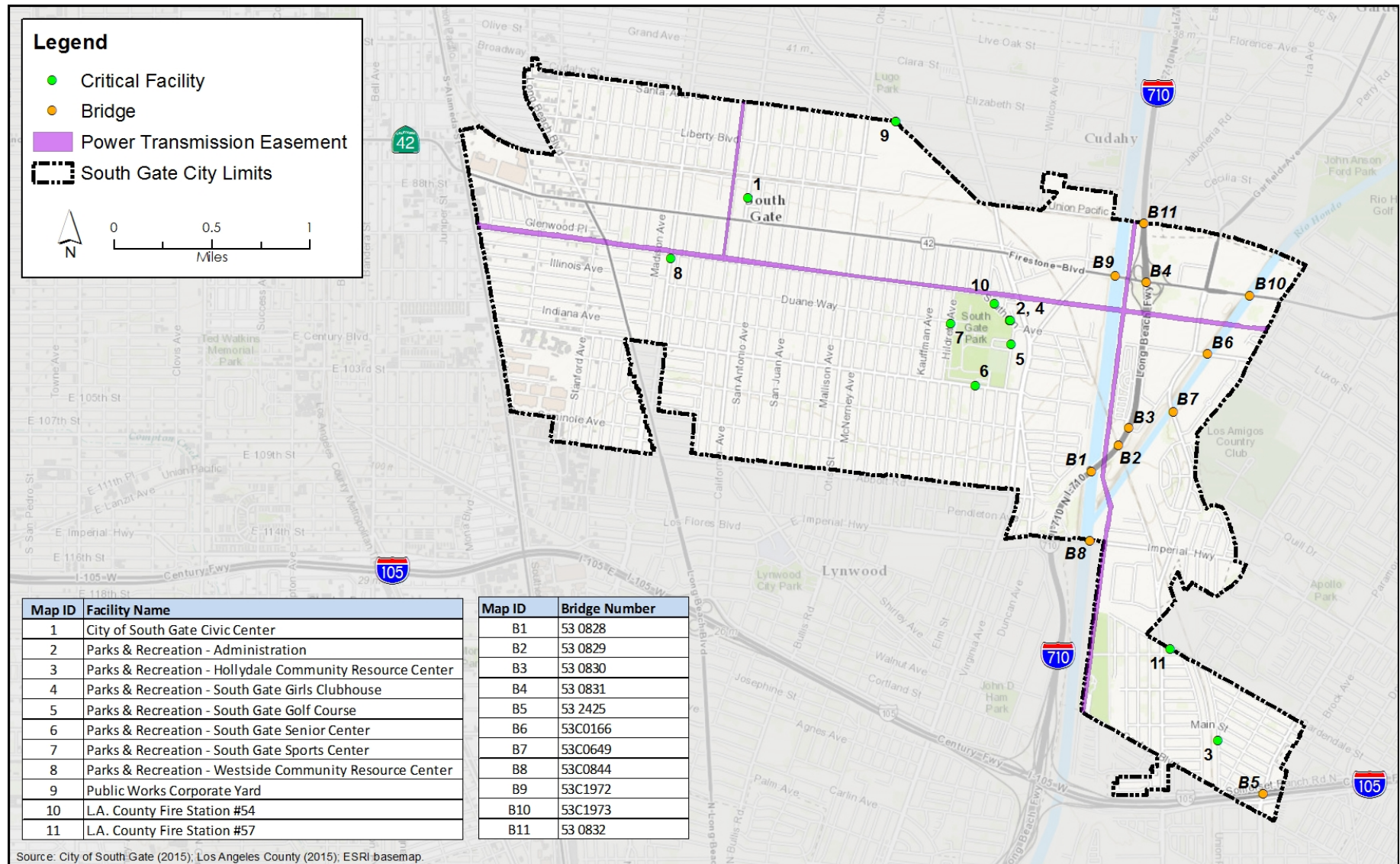
The South Gate water utility supplies more than 90 percent of local water needs. In addition to supplying day-to-day demand, the water utility would also be the source of water for purposes of emergency and fire response. The water utility is responsible for both water supply and quality, pursuant to the City of South Gate Urban Water Management Plan (2015). The City's current water supply needs are deemed adequate for existing and projected growth in the City, as the City currently has several thousand acre-feet of water supply that is not in use. The water distribution system is composed of 124 miles of water mains (30 miles of which are slated for replacement due to age and condition), seven reservoirs (tanks), and 7 groundwater wells that supply water to the system. Constant upgrades to the system are occurring on an annual basis as part of the City's Capital Improvements Program.

## Los Angeles County Office of Emergency Management

The Los Angeles County Office of Emergency Management undertakes emergency preparedness for the entire area of Los Angeles County. Key tasks include responsibility for maintaining an emergency response plan, support to incorporated jurisdictions for disaster planning and preparation, and maintenance of the readiness of the County Emergency Operations Center (County of Los Angeles 2015a). The County's Operational Area Emergency Response Plan (2012) identifies a plan for emergency organization for the entire county, including incorporated cities. This plan also outlines the responsible authorities and mutual aid processes for the entire operational area of Los Angeles County.

To prepare for the special needs of individuals with access and functional needs, the County Office of Emergency Management maintains a Specific Needs Disaster Voluntary Registry. Individuals can register in the system if they experience conditions that pose challenges to safe evacuation from a building. Los Angeles County uses this information to plan for and assist those with special needs in the event of an emergency (County of Los Angeles 2015b).

Figure SE-1: South Gate Critical Facilities



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## Los Angeles County Fire Department

The City contracts fire services with the Los Angeles County Fire Department for fire protection and emergency responder services. Two fire stations are located in the City of South Gate.

## Community Emergency Response Teams

Working with the Los Angeles County Fire Department, the City of South Gate provides Community Emergency Response Training (CERT) to citizens of the community. The City offers classes in English and Spanish. Participants in the classes learn strategies to prepare and respond to disasters and terrorism events.

## Emergency Response

Regional agencies and partnerships play an important role in emergency response in South Gate. Los Angeles County facilitates and manages key emergency response efforts in the community.

## Emergency Operations Center

The Los Angeles County Office of Emergency Management is responsible for maintenance of the County Emergency Operations Center. The center serves as a first-responder for disaster events in the county, including incorporated cities. The County is also responsible for activating other emergency operation centers throughout the county, as needed, depending on the type or location of disastrous event (County of Los Angeles 2012). The City of South Gate does have a designated emergency operations center, which is located within the South Gate Police Department.

## Emergency Notification

In the event of an emergency, Los Angeles County implements Alert LA County, an emergency mass notification system to contact County residents and businesses. The system sends text messages, voice mail messages, and e-mail messages to alert the community of emergency events (Los Angeles County 2015a, 2015c). The responsibility for emergency notification services throughout the county is held by the County Office of

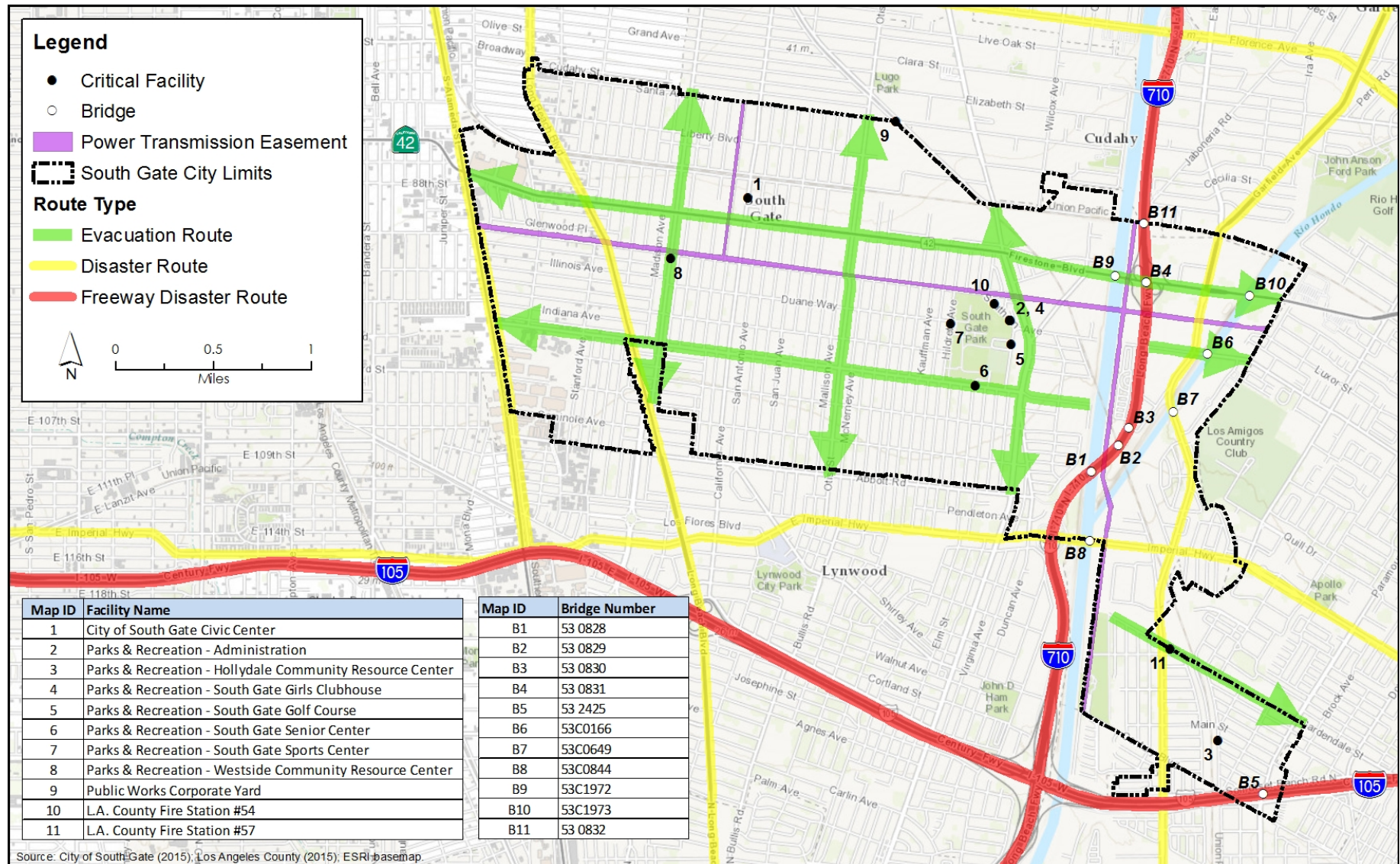
the Sheriff. As further described by the County, the Office of the Sheriff also has responsibility to issue calls for evacuation. In the event that emergency shelters are necessary, the County Department of Public Social Services is responsible for the activation and coordination of shelters with jurisdictions throughout the county.

## Disaster and Evacuation Routes

In the event of a significant emergency, clear routes are needed to ensure that emergency responders and supplies can be transported to the disaster and that community members can be evacuated away from the disaster. The County of Los Angeles designates official disaster routes. Disaster routes in or near the planning area include Interstates 710 and 105, as well as Alameda Street, Long Beach Boulevard, Imperial Highway, Garfield Avenue, and Florence Avenue. The City of South Gate designates its own evacuation routes, which include Firestone Boulevard, Tweedy Boulevard, Southern Avenue, Gardendale Street, Atlantic Avenue, Otis Street, and California Avenue. **Figure SE-2** displays these disaster and evacuation routes.



Figure SE-2: Disaster and Evacuation Routes in South Gate



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## Roadway Widths

After a hazard or disaster event occurs, emergency access and response depends on an adequate roadway network. To allow quick response by fire and emergency services, streets must be wide enough to accommodate fire trucks and other types of supportive vehicles. Once emergency response vehicles arrive at their destination, development must also provide sufficient points of access. Failure to provide access either at the site or on roads that lead to the site can constrain fire and emergency response services. The City of South Gate implements a street standards system that includes standards for minimum roadway widths. The City's street standards are presented in the Roadway Guidelines of the Mobility Element. To ensure new development is accessible to emergency responders, the City coordinates with the Los Angeles County Fire Department on certain types of development in the City to ensure adequate requirements are met.

## Natural Hazards

According to the Federal Emergency Management Agency (FEMA), a natural hazard is any type of natural event that threatens the lives, property, and other assets of a community (2013). Natural hazards can include biological outbreak events, seismic hazards, or other events that in turn affect people or property of the community. Several natural hazards pose potential threats to South Gate.

### Drought

A drought is a long-term shortage of water, usually caused by extended periods with little or no precipitation. Since 2012, California has been experiencing drought conditions statewide. This drought is among the most severe in the state's history. In 2015 and 2016, most of Los Angeles County, including South Gate, was classified by the US Drought Monitor as experiencing exceptional drought conditions (2015).

Drought conditions primarily impact the City's local water supply, which is locally pumped groundwater. This dependency on groundwater puts the City at high vulnerability for a reliable water supply if managed poorly. However, this water source is managed effectively by the City and the Water

Replenishment District of Southern California to reduce the impacts associated with prolonged drought. The groundwater levels within the basin used by the City for potable water needs, increased over the past year due to effective management of groundwater production, recharge/replenishment efforts, and increased conservation throughout the region. This in conjunction with the City's active management of their existing adjudicated water supplies, ensures adequate water to meet City needs for years to come. In addition, the City has also ensured adequate interties are available with water systems in neighboring communities/ entities (Downey, Lynwood, Huntington Park, Golden State Water Company, and Walnut Mutual Park). These interties are capable of supply water during emergency situations and ensure greater resilience within the region.

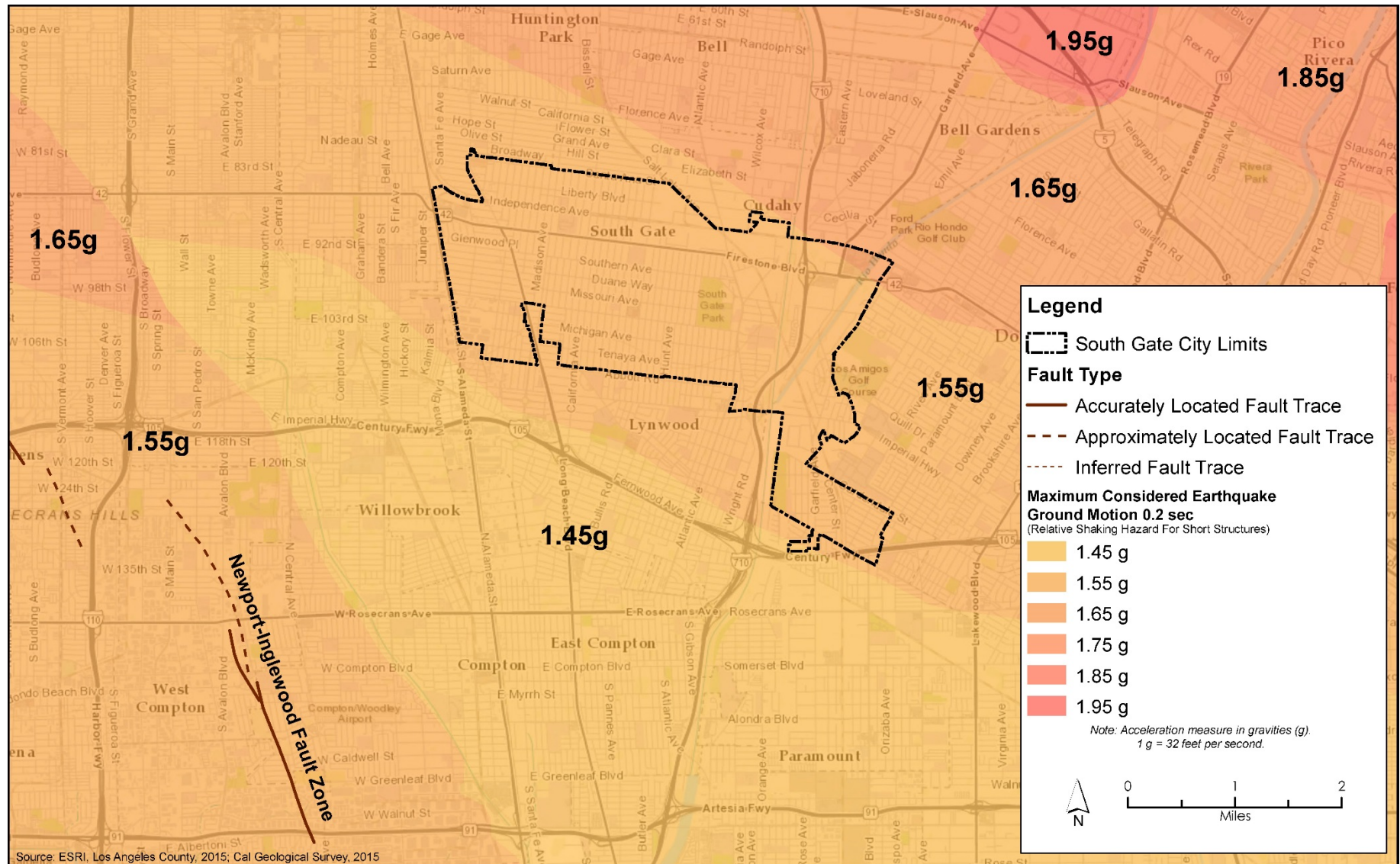
## Seismic Hazards

Seismic hazards occur when accumulated stress between portions of the earth's crust is released, resulting in the sudden ground movement commonly perceived as an earthquake. Seismic hazards are the direct result of this released stress, and include seismic shaking (the ground movement itself, which occurs over a wide area beyond the site of the earthquake), liquefaction, and landslides.

### A. Seismic Shaking

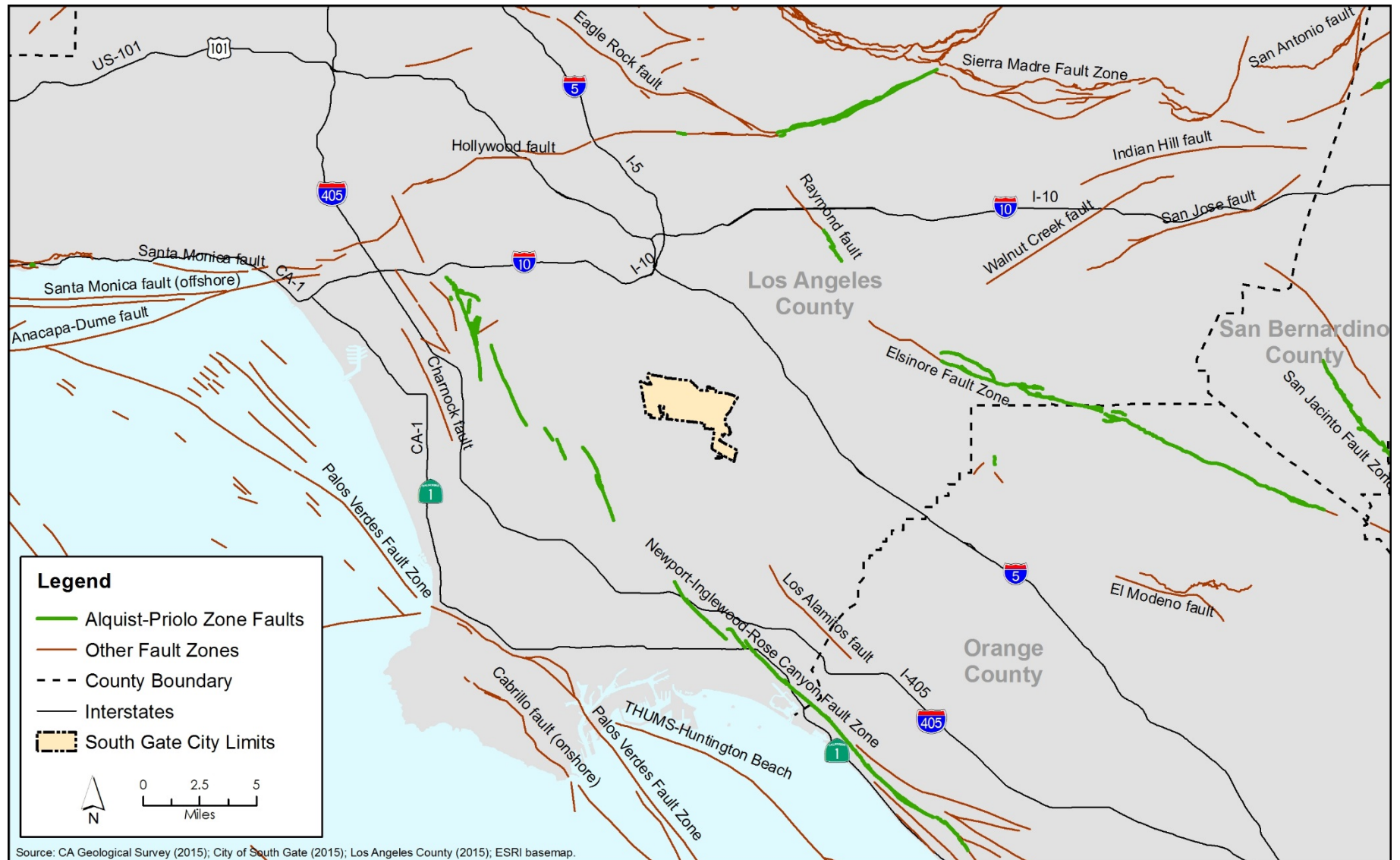
South Gate is located in a seismically active area. Although no faults run through the community, several active faults are located within 60 miles. The nearest fault, the Newport-Inglewood fault zone, passes approximately 4 miles from South Gate at its closest point. **Figure SE-3** identifies the City of South Gate's proximity to the Newport-Inglewood fault zone and seismic shaking potential for all faults in the region. The map depicts the approximate level of shaking for which there is a 2 percent chance that an earthquake may exceed in the next 50 years. Future earthquakes along these faults could be very strong in intensity and pose moderate to considerable damage to structures and buildings, with earthquakes anticipated to measure above a 6.0 on the moment magnitude scale (Southern California Earthquake Data Center 2015).

Figure SE-3: Seismic Shaking Potential



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Figure SE-4: Regional Fault Zones



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**Figure SE-4** shows South Gate's proximity to regional faults, including faults known as Alquist-Priolo faults, which are the known and active faults in the state. In addition to the Newport-Ingelwood fault zone, major Alquist-Priolo faults in the region include the Whittier-Elsinore fault, the San Andreas fault, and the San Jacinto Fault zone. Other major faults, such as the Palos Verdes and Sierra Madre fault zones, are not designated as Alquist-Priolo faults because they have not caused major earthquakes in the historical period, but may still be capable of doing so. The largest fault in California and one of the most active, the San Andreas Fault, is approximately 40 miles away from South Gate at its closest point. Earthquake forecasts anticipate at least a 19 percent chance of the southern portion of the San Andreas Fault causing a major earthquake by 2044 (USGS 2015).

## B. Liquefaction

Liquefaction occurs when the force of an earthquake's shaking causes groundwater to mix with the soil. This mixture temporarily becomes a fluid and loses its strength, which may in turn cause buildings and other structures built on or in it to tilt, collapse, or otherwise suffer damage. Liquefaction can also occur independently of an earthquake, if any other sudden and significant stress causes the mixing of groundwater and soil. Factors such as the height of the groundwater table and soil types also determine an area's vulnerability.

**Figure SE-5** illustrates the area of liquefaction potential in the City according to the California Department of Conservation. Based on this information, all of South Gate is considered at an elevated risk for liquefaction due to these soil types and a high water table (less than 40 feet below the surface). However, South Gate City staff identifies the water table fluctuates between 80–100 feet below the surface (or more), and does not consider liquefaction as a substantial risk in the community.

## C. Landslides

The generally flat topography of South Gate indicates that the City does not have an elevated risk associated with landslides. However, the community faces the possibility of small landslides along the Los Angeles River, drainage channels, or other areas where steep slopes occur. Small

landslides can occur during grading and other earthmoving activities if appropriate actions are not taken.

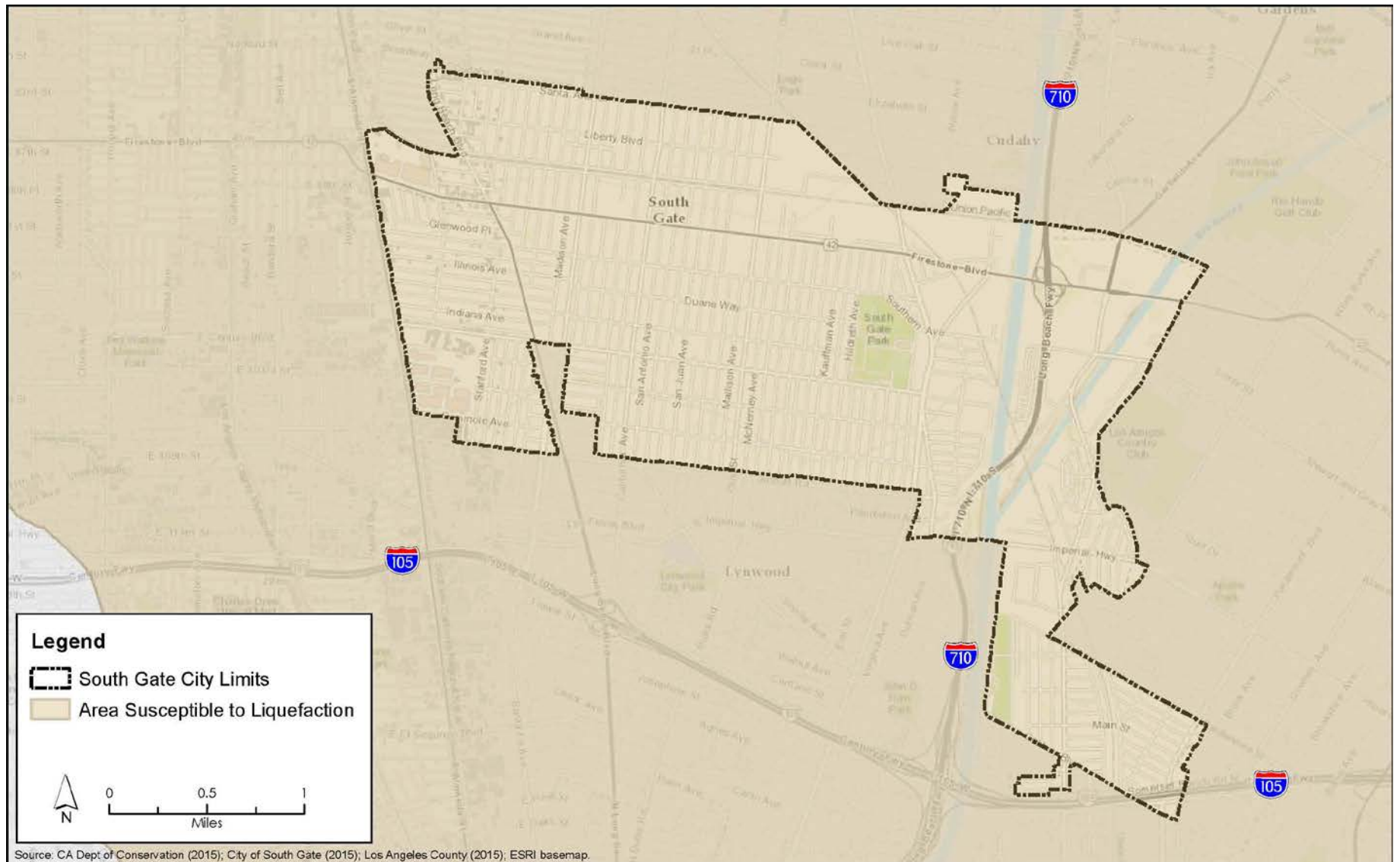
## Flood

Flood events occur whenever water covers what is normally considered dry land. They often occur during heavy precipitation events, when the amount of rainwater exceeds storm drains or flood control channel capacity. The force of a flood is sufficient to carry away large objects and smash them into structures, causing considerable damage to buildings and infrastructure. In severe instances, floodwaters themselves can destroy structures or move them off their foundation. Floods can saturate and weaken soil, potentially making structures built on them more susceptible to damage or collapse.

FEMA has identified elevated risk of flooding in the eastern portion of the community near the Los Angeles River and the Rio Hondo drainage channel. **Figure SE-6**, which is based on maps prepared by FEMA in May 2015, shows that areas of the City east of Jackson Avenue and Burke Avenue are within the 500-year floodplain, meaning that there is a 0.2 percent chance (one in 500) that the area will be subjected to flooding in any given year. Overall, nearly half of the community is located within the 500-year flood zone. The only parts of South Gate within the 100-year floodplain are the Los Angeles River and the Rio Honda drainage channel itself, although there is land in northeastern Lynwood (immediately south of South Gate) in the 100-year floodplain. Areas within the 100-year floodplain have a 1 percent chance (one in 100) of flood occurring in any given year.

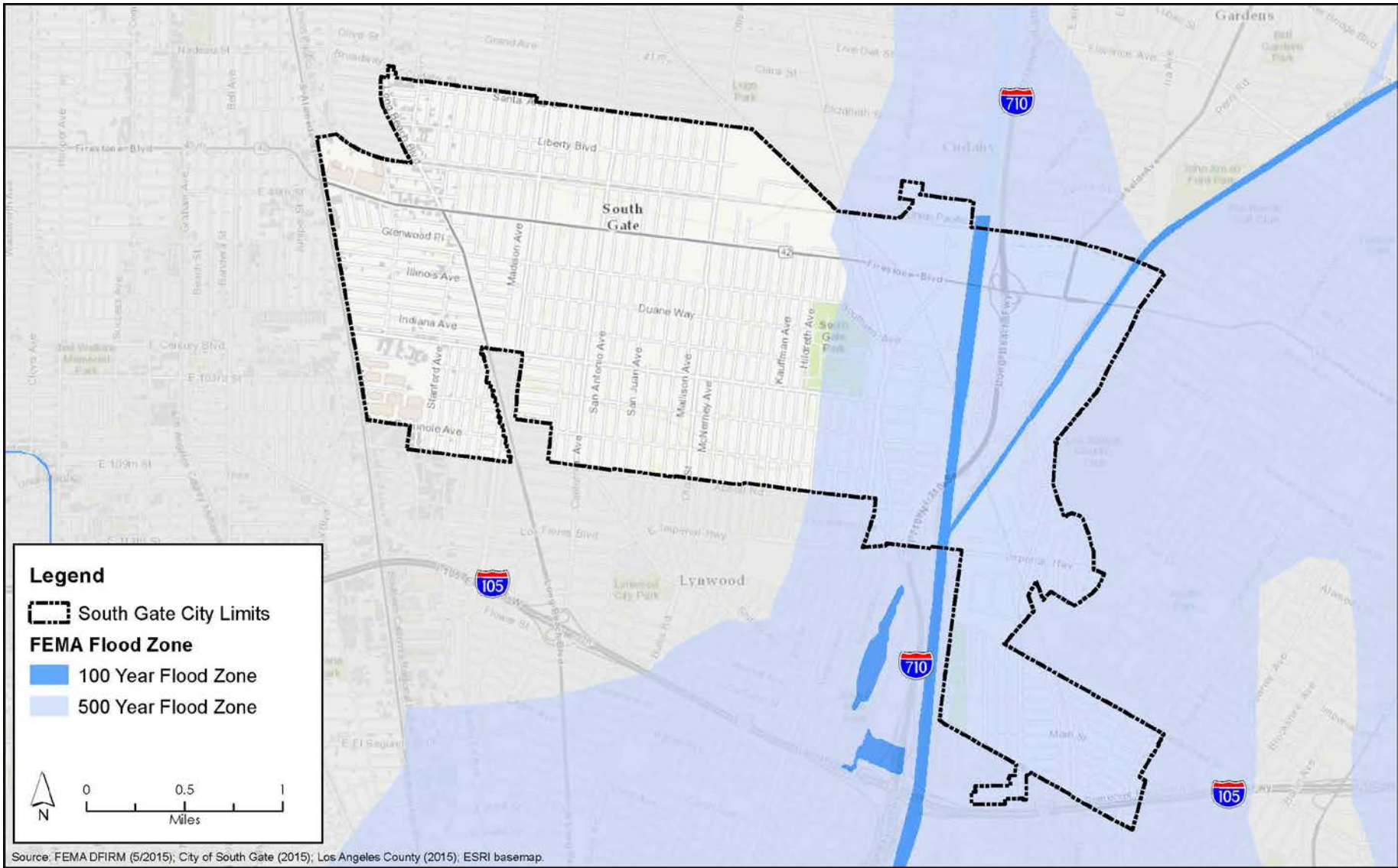


Figure SE-5: Area Susceptible to Liquefaction



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Figure SE-6: South Gate Flood Zones



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## Dam Inundation

While flooding typically occurs as a result of heavy precipitation, flood hazards can also result from the failure of dam infrastructure. The failure of a dam can result from multiple causes including earthquakes, acts of terrorism, or inadequacies in the design or construction of the dam. Dam failure results in sudden, fast-moving floods that can damage or destroy property, cause injury or loss of life, and displace large numbers of people in the flood's path. A dam failure event can also damage regional infrastructure such as transportation and energy networks, causing impacts outside of the immediate inundation zone.

All of South Gate lies within one of several dam inundation zones for at least one dam. **Figure SE-7** presents dam failure inundation zones in South Gate. The majority of the community lies within the hazard zone for the Hansen Dam. Built in 1940, Hansen Dam was constructed as a flood control measure to the Los Angeles River floods of 1938. Hansen Dam is located approximately 23 miles northwest of South Gate, in the San Fernando Valley. The US Army Corps of Engineers has assigned the dam safety rating of DSAC-III, Moderate Urgency. This rating reflects issues at the dam that indicate significant inadequacy, or moderate to high life or economic consequences due to dam failure.

As required by the US Army Corps of Engineers, operators of Hansen Dam update the dam's Emergency Action and Notification Plan annually, with special inspections triggered if the water level reaches a certain height. Hansen Dam's DSAC rating and breadth of inundation zone make it the key dam failure risk in South Gate. Not only is the risk of dam failure higher, but the inundation zone covers a larger portion of the community.

Two other dams posing potential inundation hazards to the community are the Whittier Narrows Dam and the Garvey Dam. While each of these dams are located within 10 miles of South Gate and closer than the Hansen Dam, they pose threats to a smaller section of South Gate. Typically the Whittier Narrows Dam only contains water in the event of severe flooding. **Figure SE-8** shows the location of the three dams relative to South Gate.

## Extreme Heat

Extreme heat events are commonly defined in California as a day where the high temperature exceeds the average high temperatures of 98 percent of the historic days between April and October. Five extreme heat days in a row is considered a heat wave. The worst heat event in California history occurred in the Los Angeles area in 1955, when an eight-day heat wave resulted in temperatures as high as 108 °F in downtown Los Angeles and killed 946 people. A heat wave in July of 2006 killed 147 people throughout the state.

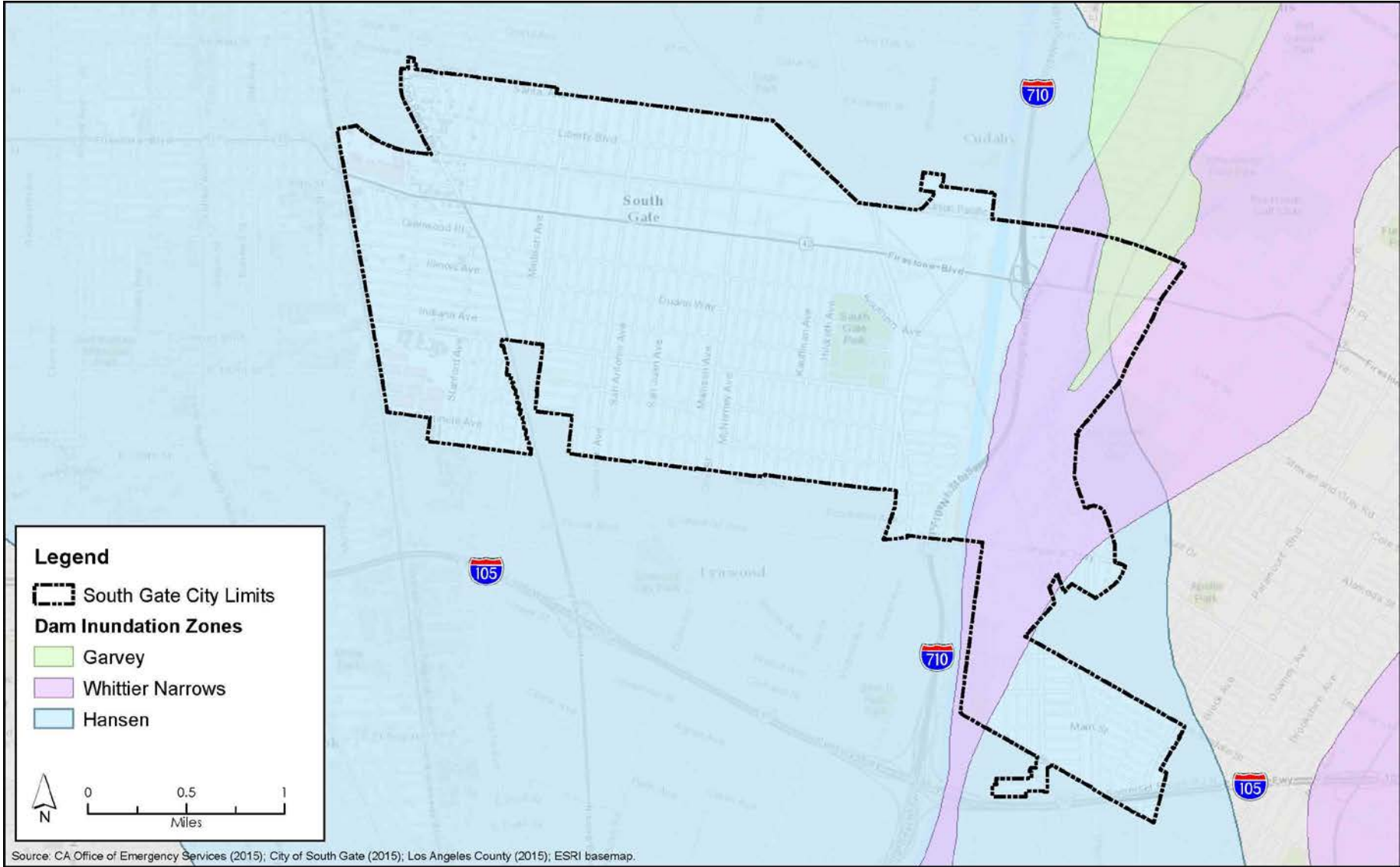
The threat of extreme heat can be higher in urban areas such as South Gate, where a lack of vegetation and a high volume of dark-colored roofs and paving materials lead to higher air temperatures.

The greatest risk from extreme heat events are health related. While some heat-related illnesses are often minor and temporary, including heat rash and heat exhaustion, extreme heat can overwhelm the body's ability to maintain a safe internal temperature. If a person's internal temperature rises to 104 °F or above, heatstroke, the most serious heat-related illness, can occur. Heatstroke can cause fainting, seizures, and mental impairment. If left untreated, heatstroke may lead to permanent organ damage, coma, or death.

An extreme heat event in South Gate occurs when temperatures in the area rise above 92 °F. Historically (1961 to 1990), these events occur an average of four times each year. (CEC 2016)



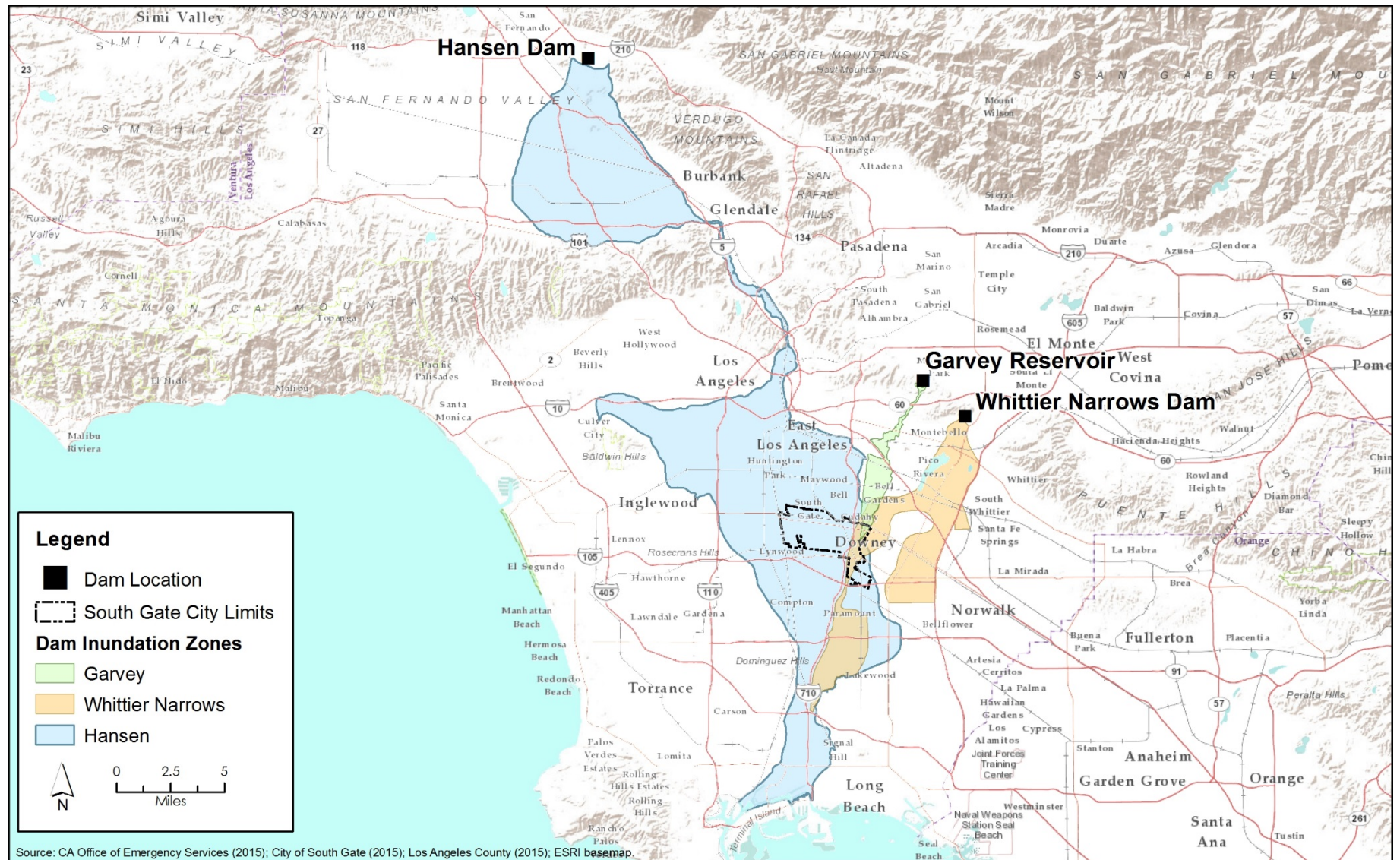
Figure SE-7: South Gate Dam Failure Inundation Zones



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Figure SE-8: Dams Posing Inundation Hazard to South Gate



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## Severe Weather

For purposes of this element, severe weather refers to hail, tornadoes, and wind. Hail is a type of precipitation that involves rough spheres or lumps of ice. High winds can pose a threat by directly damaging property or by causing other indirect damage, such as blowing over trees. Tornadoes are a form of high wind, but involve rotating columns of air that reach from the ground's surface to a cloud, usually a thundercloud.

While hail and tornadoes are relatively uncommon events in the Los Angeles region, recent rare events have threatened people and property throughout the region. In 1986, a series of thunderstorms created hail that was severe enough to cause traffic accidents in Pasadena. The Tornado Project identifies 42 tornadoes that have struck Los Angeles County since 1950, including a tornado in 1983 that injured 30 people and damaged 50 homes near western Los Angeles. Within the last twenty years, 15 tornadoes have been reported in the vicinity of the City. These events were small in nature and resulted in little damage and zero deaths. Based on this information, it is not anticipated that tornadoes hazards are an issue that need to be addressed in South Gate.

## Disease and Pest Management

Disease and pest management hazards are caused by an undesirable organism (insects, bacteria, viruses, etc.) that causes serious harm to plants, animals, or humans. These organisms can threaten human health by infecting people with a number of diseases, some of which are potentially fatal. Pathogenic or disease-carrying organisms may also cause widespread devastation to forests, creating safety hazards and causing environmental damage in addition to economic impacts. In South Gate, this issue mostly affects trees within parks and landscaped areas, as well as portions of the population at greater risk to disease related pathogens (elderly, immunocompromised, etc.).

## Man-Made Hazards

Man-made hazards are those resulting from human error or ill will, the release of potentially dangerous man-made materials, equipment hazards, or other human-caused actions that pose potential threats to the

community. Such potentially man-made hazardous events include urban fires, the release of hazardous materials, and terrorist incidents.

## Urban Fires

The City of South Gate is exposed to urban fire-related hazards. Urban fires can result from other primary natural hazards, such as earthquakes, which can cause downed power lines or result in the release of fuels that in turn cause combustion and the outbreak of a fire. Urban fires may also result from other events, such as an equipment malfunction, arson, or human error.

As a largely built-out, urban environment, South Gate is not exposed to wildfire hazards. The California Department of Forestry and Fire Protection designates areas of high wildfire risk pursuant to California Government Code Section 51178. Such areas are classified as Very High Fire Hazard Severity Zones (VHFSZ) based on fuel loading, slope, fire weather, and other relevant factors. South Gate does not contain any VHFSZ or other state responsibility areas for wildfire. The City has not created any other local designations for areas with significant risk to fire hazards.

## Peak Load Water Supply

State law requires the City to ensure peak load water supply, which means that emergency responders have access to water for firefighting purposes even in times of highest demand. The City ensures peak load water supply through their Capital Improvements Program, which determines the water supply infrastructure in need of maintenance, repair, and/or upgrade. In addition, the City's development review process ensures adequate peak load water supply when new developments are proposed by requiring reviews by the City's Public Works Department and the Los Angeles County Fire Department to ensure water supply requirements are met or exceeded.

## Hazardous Materials

Hazardous materials include a range of natural and artificial substances that can be a risk to the public, including toxic metals and chemicals, flammable or explosive materials, corrosive material, infectious substances, and radioactive materials. These materials can create health problems if inhaled,

touched, or ingested. Alternatively, these materials can be relatively harmless by themselves but can create dangerous conditions such as explosives. Hazardous materials can also escape from containment vessels and contaminate groundwater, soil, or air, which may result in further impacts. Long-term public health and environmental issues can arise from the sustained use of or exposure to such materials.

A release of hazardous materials could occur in several ways. Hazardous materials could be present at disturbed sites previously used for industrial activities, as a by-product of past operations. Malfunctioning equipment or human error could result in the accidental release of hazardous substances. Accidents at a facility or collisions involving a vehicle transporting hazardous materials could cause an accidental release. Road vehicles, trains, and sometimes aircraft are all used to transport these materials, and accidents involving these vehicles may involve the release of hazardous materials.

In South Gate, a prime area of concern for hazardous material releases is rail accidents. Two rail lines run through South Gate and a third runs immediately east of the City, carrying anywhere from 4 to 41 trains each day, depending on the line. Trains carrying hazardous materials may use any of these rail lines, and an accident involving hazardous materials on any of these rail lines may create a health and safety risk in South Gate. **Figure SE-9** shows the rail lines in and around South Gate.

Several sites in South Gate also have known or potential contamination from past activities involving hazardous materials. As of September 2015, four sites in the City are undergoing cleanup activities overseen by The California Department of Toxic Substances Control (DTSC). There are three Superfund sites in South Gate, all of which are currently undergoing cleanup activities. In addition, the City also has 155 sites monitored by State Water Resources Control Board due to the presence of underground storage tanks, or issues that may have the potential for contamination of water bodies. As a result of monitoring and cleanup activities, the majority of these sites are no longer considered contaminated (due to clean up activities) and those remaining sites are in various states of operation, closure, or remediation.



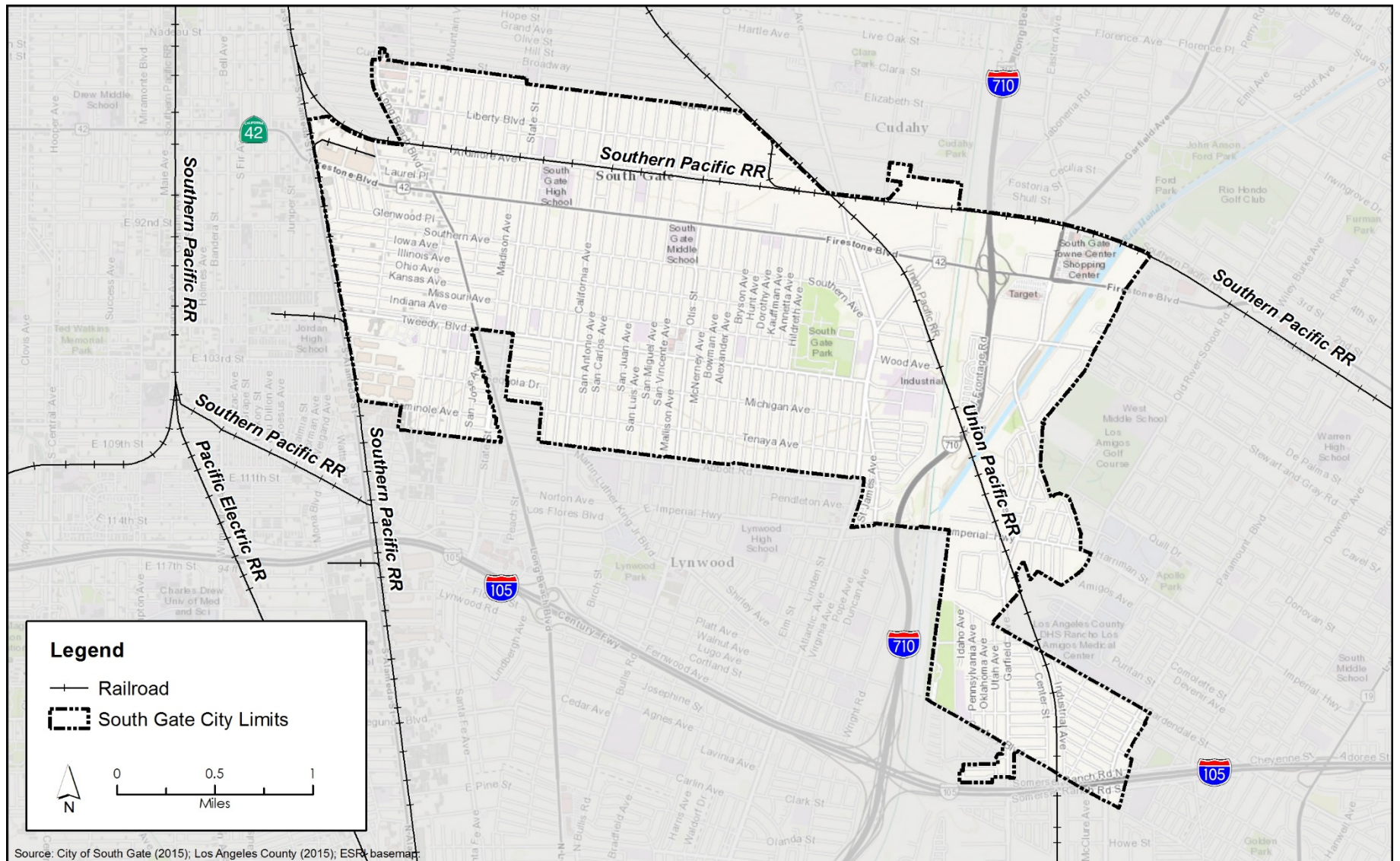
## Airport Operations Hazards

Hazards from airports can result from accidents during takeoff and landing. Airports can also create potential land use incompatibilities. However, hazards from airport traffic or takeoffs and landings are minimal in South Gate. No airports operate within the city limits of South Gate. The City of South Gate is approximately 13 miles east of the Los Angeles International Airport, and is outside of any airport land use planning zones. However, aircraft do fly over South Gate, including those approaching or leaving regional airports. The City generally cannot influence these flights, as there are no airports in South Gate and air travel is governed by the Federal Aviation Administration (FAA).

## Terrorism and Civil Disturbances

Numerous targets and locations for potential terrorist and civil disturbances are present throughout California and Los Angeles County. Areas that may serve as targets include government facilities, schools, religious institutions, gathering places, utility infrastructure, transportation infrastructure, and critical facilities such as water storage facilities. South Gate contains potential target locations such as these and is regionally located near others. Terrorism threats or incidents require a high degree of coordination, crisis management, and expertise. These events require a regional response. The County of Los Angeles operates a Terrorism Early Warning (TEW) Group for multidisciplinary coordination and emergency preparation. The TEW seeks to share data and monitor potential threats, serving as a forum from a multijurisdictional collaboration (County of Los Angeles 2014). Through the TEW, the County of Los Angeles Office of Emergency Management, and other forums, the County actively prepares for terrorism and other human-caused incidents. Due to the sensitive nature of these threats, they are not addressed in extensive detail in this public document.

Figure SE-9: South Gate Rail Lines



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# KEY ISSUES AND CHALLENGES

## **Growth in a built-out environment that increases existing exposure to hazards in light of a changing climate**

Over time, exposure to hazards in South Gate may heighten due to both new development and increased density in an existing environment that is largely built-out. With future growth, more people will be concentrated within the same areas that already face risks such as flooding. A priority for the City's mitigation strategy must be to address existing hazards in the built environment, in addition to the hazards faced by new development.

While the City must address current risks that are already known and documented, the City must also prepare for the evolution of natural hazards and their potential impacts on the community. Exposure to certain hazards is anticipated to increase over time, with climate change exacerbating events and conditions that leave the community vulnerable. Scientific evidence suggests that precipitation will decrease as rates of evaporation increase, with more frequent and more severe droughts, extreme heat events, and severe storms. These changing risks emphasize the importance of developing a strong framework for hazard management to manage current risks while also anticipating those that may evolve over time.

## **Planning for effective emergency response**

South Gate is integrated into the regional network of emergency management services. Ongoing participation in regional partnerships will provide the City with access to additional resources and expertise from partner jurisdictions. Coordination with the County and other agencies also reduces the burden of emergency mitigation on City staff. Although South Gate participates in regional disaster preparation and response programs, the City also has the opportunity to take additional steps locally.

Outstanding tasks for the City include identification of official, local evacuation routes and preparation of a local emergency operations plan. This level of local preparation will strengthen the City's capacity to serve as a more effective partner for emergency response.

## **Protection of critical facilities and operations**

Many existing public and private critical facilities in the community are located in areas of hazard risk. The majority of the community's critical facilities are located within 100- or 500-year flood zones, as designated by FEMA. Critical facilities are also located within areas susceptible to dam inundation and seismic shaking. Addressing and mitigating vulnerabilities of these facilities will aid in continued delivery of services to the community when a disaster occurs.

## **Community capacity and characteristics**

South Gate is a diverse community, with needs and vulnerabilities as diverse as the population that calls it home. Understanding the language and other characteristics of the community is critical for effective disaster mitigation and response. Approximately 89 percent of residents in South Gate speak a language other than English. Of these, nearly half speak English less than well. A total of 88 percent of the population speak Spanish or Spanish Creole (US Census 2012). These characteristics emphasize the importance of using languages other than English to engage and inform the community of South Gate. The City has an opportunity to strengthen existing partnerships with local organizations and service groups to reach all of South Gate's diverse populations, using existing community connections to better understand and address the vulnerabilities of all residents.

## **Community education and resources to address hazards**

Ultimately, the City of South Gate has a responsibility to protect its citizens from hazards. Yet beyond protection, the City must be prepared to respond to the worst-case scenarios when they occur. There is a role for residents, businesses, and organizations to play in disaster preparation, mitigation,

and response. Through community education efforts and partnerships with existing groups, the City can reach a broader range of individuals. Not only should the City try to educate individuals on exposure to hazardous risks, the City should also seek to educate individuals on cost-effective strategies to mitigate risks.

# Goals, Objectives, and Policies

**Goal 1:** Enhanced protection of life and property from hazard impacts.

**Objective 1.1:** Protect residents, businesses, and government functions from seismic and geologic hazards.

Policy
1.1.1 Require all new development and substantial remodels to meet minimum state standards for seismic safety.
1.1.2 Prepare new and existing infrastructure for seismic and geologic hazards.
1.1.3 Facilitate seismic retrofits for existing buildings and infrastructure.

**Objective 1.2:** Minimize flood and dam inundation hazards with reliable drainage infrastructure and flood-ready development practices.

Policy
1.2.1 Consult with regional partners for ongoing implementation of flood control and drainage measures and stormwater permitting programs.
1.2.2 Maintain and enhance City-operated stormwater and flood-control infrastructure.
1.2.3 Continue implementation of the City’s floodplain management ordinance.
1.2.4 Ensure that new development in South Gate does not exacerbate potential flooding hazards.
1.2.5 Require new projects and remodels to use low-impact development techniques that limit paving and hardscape while increasing on-site stormwater retention.
1.2.6 Maximize the use of pervious paving and landscaping in new private development and substantial remodels for on-site water retention.
1.2.7 Incorporate pervious paving into public improvements for on-site water retention, when cost-effective and feasible.

**Objective 1.3:** Optimize operations, functions, and structures of the community to withstand the effects of severe weather.

Policy

1.3.1 Require adequate maintenance of private landscaping that could otherwise interfere with utility infrastructure.

1.3.2 Adequately maintain public trees and landscaping to reduce damage to infrastructure.

1.3.3 Select resilient tree species that can withstand high wind and severe storm hazards in public landscapes.

**Objective 1.4:** Protect people and plant species from the risks of disease and epidemiologic outbreak.

Policy

1.4.1 Consult with the Los Angeles County Department of Public Health for monitoring of and preparedness for potential disease outbreaks.

1.4.2 Consult with the Los Angeles County's Public Health Rapid Response Teams to prepare strategies for the rapid and coordinated response to epidemiologic and health-related hazards.

1.4.3 Develop strategies to reduce and contain the risk of exposure to the West Nile virus.

1.4.4 Prepare plans for the containment of biological hazards.

1.4.5 Maintain the health of the urban forest and contain the spread of diseased trees.

**Objective 1.5:** Minimize community exposure to human-caused hazards.

Policy

1.5.1 Improve safety along at-grade railroad crossings.

1.5.2 Minimize exposure to hazardous materials and waste along truck routes and railroad corridors in the city.

1.5.3 Prepare for hazardous materials incidents.

1.5.4 Protect soils, surface water, and groundwater from contamination.

1.5.5 Promote the siting and design of new industrial and hazardous waste-related facilities to appropriate areas in a manner that is compatible with surrounding uses.

1.5.6 Regulate the operations of new industrial and nonresidential uses to avoid exposure of the community to hazardous materials and pollutants.

1.5.7 Consult with the County and regional partners to prepare and respond to hazardous materials events.

1.5.8 Limit the transport of hazardous materials and heavy-duty vehicles to identified truck routes that avoid sensitive receptors.

1.5.9 Facilitate the safe disposal and handling of household hazardous waste.

**Objective 1.6:** Prepare for a reliable water supply and efficient water practices to withstand the effects of drought.

Policy
1.6.1 Ensure access to a reliable water supply to meet peak load water requirements.
1.6.2 Adopt and implement drought-tolerant standards for landscaping in public and private projects, including new and substantial remodels.
1.6.3 Encourage new development to use recycled water supplies for fire hazard response needs.
1.6.4 Expand the use of recycled water for nonpotable needs throughout the community.

**Goal 2:** Municipal and emergency operations are fully prepared for disasters.

**Objective 2.1:** Maintain and improve disaster preparedness and response capabilities.

Policy
2.1.1 Consult with Los Angeles County and other service providers to achieve optimal allocation of public safety resources and services.
2.1.2 Require new development to demonstrate adequate emergency access and services.
2.1.3 Identify minimum roadway widths and access requirements that allow for emergency vehicle access.
2.1.4 Establish and maintain clear evacuation routes for potential hazardous events or emergencies.
2.1.5 Update and maintain a local emergency operations plan for the continuity and reliability of City operations and critical functions.
2.1.6 Conduct annual reviews of hazard mitigation, disaster preparedness, evacuation plans, and emergency response plans, conducting regular updates, as necessary.
2.1.7 Maintain FEMA certification of the Local Hazard Mitigation Plan <i>(following certification of the draft LHMP)</i> .
2.1.8 Maximize the City’s eligibility for emergency preparedness and response grants.
2.1.9 Consult with Los Angeles County and utility providers to improve necessary emergency communication and notification systems.

### **Goal 3:** Municipal and emergency operations are fully functional during disasters.

**Objective 3.1:** Maintain and improve the reliability of critical facilities and utilities.

#### Policy

3.1.1 Analyze and mitigate vulnerabilities of public critical facilities to hazardous events.

3.1.2 Meet critical energy supply needs during emergencies.

3.1.3 Plan for a reliable peak load water supply with contingency strategies for emergency events.

3.1.4 Provide cooling facilities during extreme heat events or power outages.

3.1.5 Identify and implement cost-effective strategies to protect public critical facilities in flood zones.

3.1.6 Ensure continuity of City operations and functions during emergency and hazardous events.

3.1.7 Restrict the siting of new critical public facilities to areas outside of 100- and 500-year flood zones, unless absolutely necessary.

### **Goal 4:** Strengthened partnerships within the community and throughout the region that enhance hazard mitigation, preparation, response, and recovery capabilities.

**Objective 4.1:** Implement education and partnership programs for hazard preparation and mitigation.

#### Policy

4.1.1 Provide access to information on hazard preparation and mitigation to all cultural and language groups in the City.

4.1.2 Engage the business community in development and implementation of hazard mitigation strategies.

4.1.3 Collaborate with local and regional ethnic organizations to coordinate resources and strengthen the capacity of those with English as a second language to reduce existing vulnerabilities to natural hazards.

4.1.4 Partner with service providers for disabled persons and special needs groups to understand and reduce potential impacts of hazards to vulnerable persons.

4.1.5 Collaborate with community partners to jointly seek grant funding for hazard mitigation and resilience programs.



**Goal 5:** Educated and empowered community members prepare for, mitigate, respond to, and recover from hazards that affect their family and property.

**Objective 5.1:** Foster a high level of public understanding of local hazards.

Policy
5.1.1 Provide access to information on natural hazards to all cultural and language groups in the City.
5.1.2 Provide coordinated public information on disaster and emergency preparedness.
5.1.3 Consult with Los Angeles County and utility providers to disseminate up-to-date information on natural disaster preparation.
5.1.4 Require new developers of industrial uses or hazardous material-related facilities to provide adequate community noticing and processes for community notifications and complaints.
5.1.5 Maintain and disseminate up-to-date resources on hazards information, including areas within FEMA flood hazard zones.
5.1.6 Collaborate with responsible agencies to disseminate information on flood hazards to building owners and residents in dam inundation areas, or those in areas of other localized flooding risk.
5.1.7 Consult with Los Angeles County to improve emergency flood alert systems.
5.1.8 Coordinate with the South Coast Air Quality Management District and local service providers to provide coordinated community messaging and notification of extreme heat days or days with poor air quality.

**Objective 5.2:** Empower the community to access hazard mitigation resources and support optimal levels of safety.

Policy
5.2.1 Continue participation in the National Flood Insurance Protection Program.
5.2.2 Publicize the availability of flood insurance to South Gate residents and business owners.
5.2.3 Require developments in the 100- and 500-year floodplain and other high-risk inundation areas to disclose flood risks and identify appropriate flood mitigation actions, for incorporation into project design.
5.2.4 Promote neighborhood disaster preparedness through Community Emergency Response Team (CERT) training, in conjunction with Los Angeles County.
5.2.5 Address the needs of individuals with limited mobility or limited access to transportation for access to safe and comfortable shelter during extreme heat events or other severe weather events.

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