City of San Fernando

Safety Element

Public Draft | May 2022

VIII. SAFETY ELEMENT

A. INTRODUCTION

The Safety Element evaluates safety hazards in San Fernando, both existing and potential. It establishes policies and actions to avoid and reduce these hazards to protect the community. Topics covered in this chapter include:

- Geologic and Seismic Hazards
- Dam Failure Inundation Hazards
- Peak Load Water Demand
- Hazardous Materials Hazards
- Climate Change Hazards

The Safety Element also establishes environmental justice policies and actions to reduce disproportionate environmental burden present in San Fernando. The negative impact of environmental hazards and pollution on the San Fernando community is described across the following key focus areas:

- Pollution Exposure and Air Quality
- Public Facilities
- Safe and Sanitary Homes
- Physical Activity, Food Access, and Public Health
- Civic and Community Engagement

Additional detail regarding safety hazards and environmental justice are available in Appendices A and B to the Safety Element.

B. ABBREVIATIONS

Abbreviations used in the Safety Element are listed below.

AFY	Acre feet per year
CPTED	Crime Prevention Through Environmental Design
CUPA	Certified Unified Programs Agency
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
HMP	San Fernando Hazard Mitigation Plan

IPCC	Intergovernmental Panel on Climate Change
LAFD	City of Los Angeles Fire Department
LUST	Leaking Underground Storage Tanks
MWD	Metropolitan Water District
NIMS	National Incident Management System
RCPs	Representative Concentration Pathways
SB 1000	Senate Bill 1000
SEMS	Standardized Emergency Management Systems
TIMS	Transportation Injury Mapping System
TOD	Transit Oriented Development
USGS	United States Geological Survey
UWMP	City of San Fernando Urban Water Management Plan
WUI	Wildland Urban Interface

C. PUBLIC SAFETY SERVICES AND EMERGENCY PREPAREDNESS

Fire protection in the city is provided by the City of Los Angeles Fire Department. The Los Angeles County Fire Department Station #75 located at 15345 San Fernando Mission Boulevard, Station #91 located at 14430 Polk Street, and Station #98 located at 13035 Van Nuys Boulevard are the closest fire stations to the city. The City operates their own Police Department. The police station is located at 910 1st Street, San Fernando.

The State of California requires all municipal governments to prepare and plan for potential emergencies including natural, man-made, and health related events. San Fernando seeks to keep residents, property, and infrastructure as safe as possible in the event of a disaster through land use controls, hazard mitigation and emergency response efforts, and community programs.

Emergency preparedness efforts in San Fernando include:

- Implementation of risk reduction measures identified in the City of San Fernando Hazard Mitigation Plan (HMP), including regular updates to the HMP
- Establishment of emergency protocols in the City of San Fernando Emergency Operations Plan
- Water conservation measures and programs identified in the City of San Fernando Urban Water Management Plan (UWMP), including regular updates to the UWMP
- Operate Alert San Fernando, a local emergency alert system to keep residents informed about emergencies

- Operating a cooling center at City of San Fernando Recreation Center in San Fernando when temperatures exceed 100°F
- Trainings for residents in Disaster Preparedness for emergencies and natural disasters
- Upgrades to buildings and infrastructure to comply with building and fire codes

San Fernando maintains multiple emergency planning documents to prepare for regional emergency events and hazard risks. The San Fernando Hazard Mitigation Plan (HMP) was adopted in 2021 and includes a hazard mitigation assessment. In addition to the HMP, San Fernando maintains an Emergency Operations Plan consistent with State guidelines. Emergency-related resources are available on the Alert San Fernando webpage.

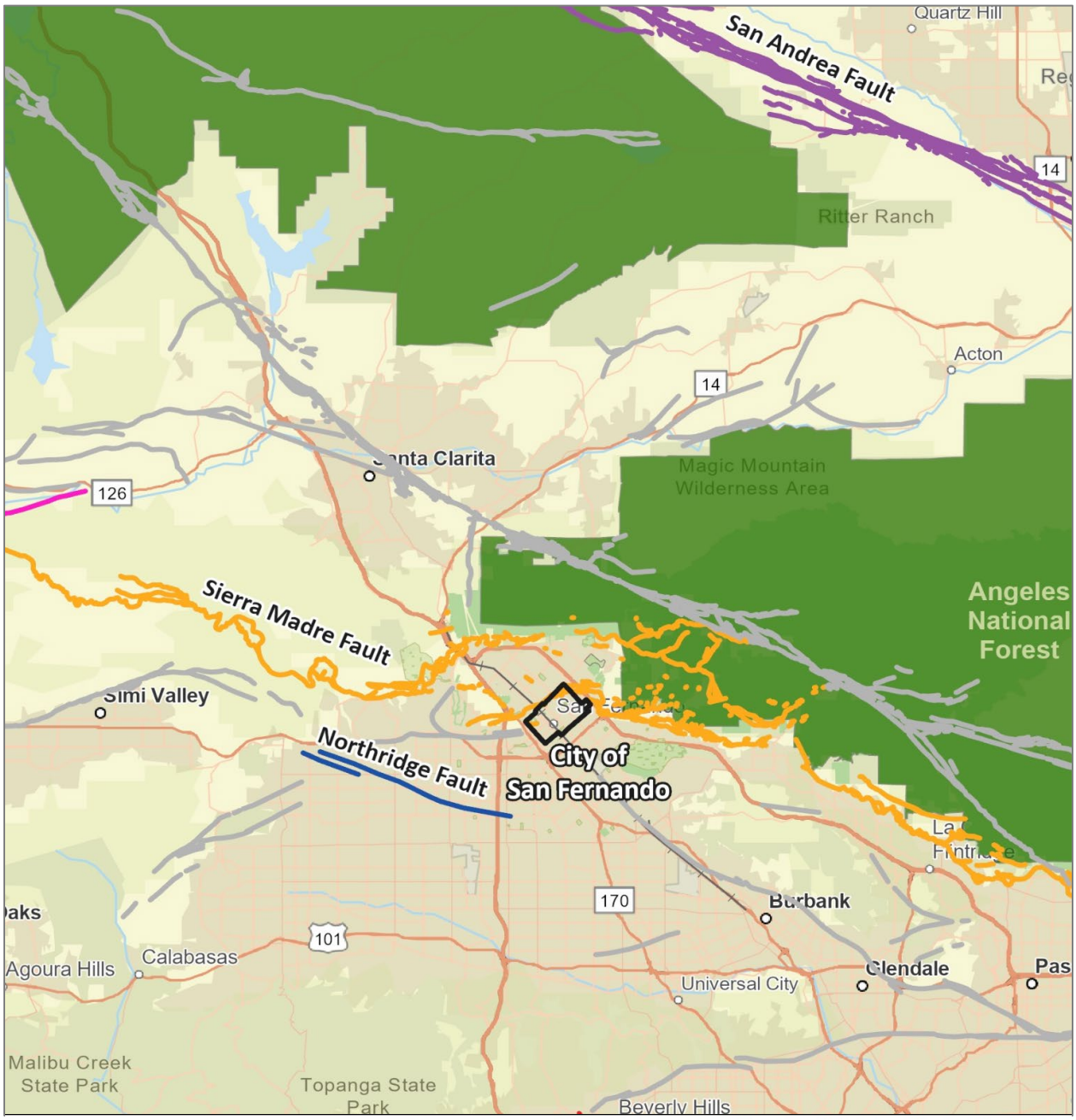
The city's street system is primarily arranged on a grid pattern, and there are no identified neighborhoods with only one point of ingress and egress. Therefore, all neighborhoods in San Fernando have more than one point of vehicular access which allows residents to evacuate during an emergency and allow access for emergency responders.

D. GEOLOGIC AND SEISMIC HAZARDS

The city of San Fernando is in a seismically active region at risk of hazards from earthquakes, including fault rupture, ground shaking, landslides, and liquefaction. The two most significant earthquakes to have recently affected the city are the 1971 San Fernando and the 1994 Northridge earthquakes. The 1971 San Fernando earthquake caused 65 fatalities and millions of dollars in property loss in the city, including damage to several bridges, sections of freeway, and a hospital. The 1994 Northridge earthquake caused 51 fatalities along with extensive damage to streets, the sewer system, the water system, public buildings, and privately-owned residential and commercial structures in the city. In the first six months following this disaster, the City spent approximately $1.8 million and over 9,100 person hours on earthquake-related activities.

Several faults have the potential to impact the city, including the San Andreas fault. The San Andreas fault is known as a "master fault" because it is the boundary between the Pacific and North American geologic plates. The segment of the San Andreas fault closest to the city of San Fernando is the Mojave segment, which is approximately 83 miles long. According to the U.S. Geological Survey (USGS), the Mojave segment is estimated to be capable of producing a magnitude 7.1 earthquake. Scientists have calculated that this segment has a 26 percent probability of rupturing sometime between 1994 and 2024. Figure 1 shows the fault lines mapped in San Fernando and the surrounding region. There are several more active faults in eastern San Fernando and northern San Gabriel valleys, including the Northridge, Newport-Inglewood, and Sierra Madre faults. The presence of so many active faults increase the probability of a major earthquake impacting the city.

Figure 1: Faults in the City and Surrounding Area



E. LIQUEFACTION HAZARDS

Liquefaction occurs when seismic waves pass through water-saturated granular soil, causing some of the empty spaces between granules to collapse. This results in a loss of ground strength and creates a near-liquid state. Liquefaction causes horizontal movements, soil flows, and loss of bearing strength, all of which could cause structures to settle or tip and may result in severe damage to property.

Areas with soil prone to liquefaction are known as liquefaction hazard zones. According to the California Department of Conversation Geologic Survey, San Fernando contains one liquefaction hazard zone that extends along its western boundary. Much of the area within the hazard zone is comprised of single family residential and multifamily residential. Figure 2 shows the liquefaction hazard zone in San Fernando and proximal lands. Landslide hazard zones are not present within the city.

Figure 2: Geologic and Seismic Hazards

- City Boundary
- Liquefaction Hazard Zone
- Landslide Hazard Zone
- Railroads

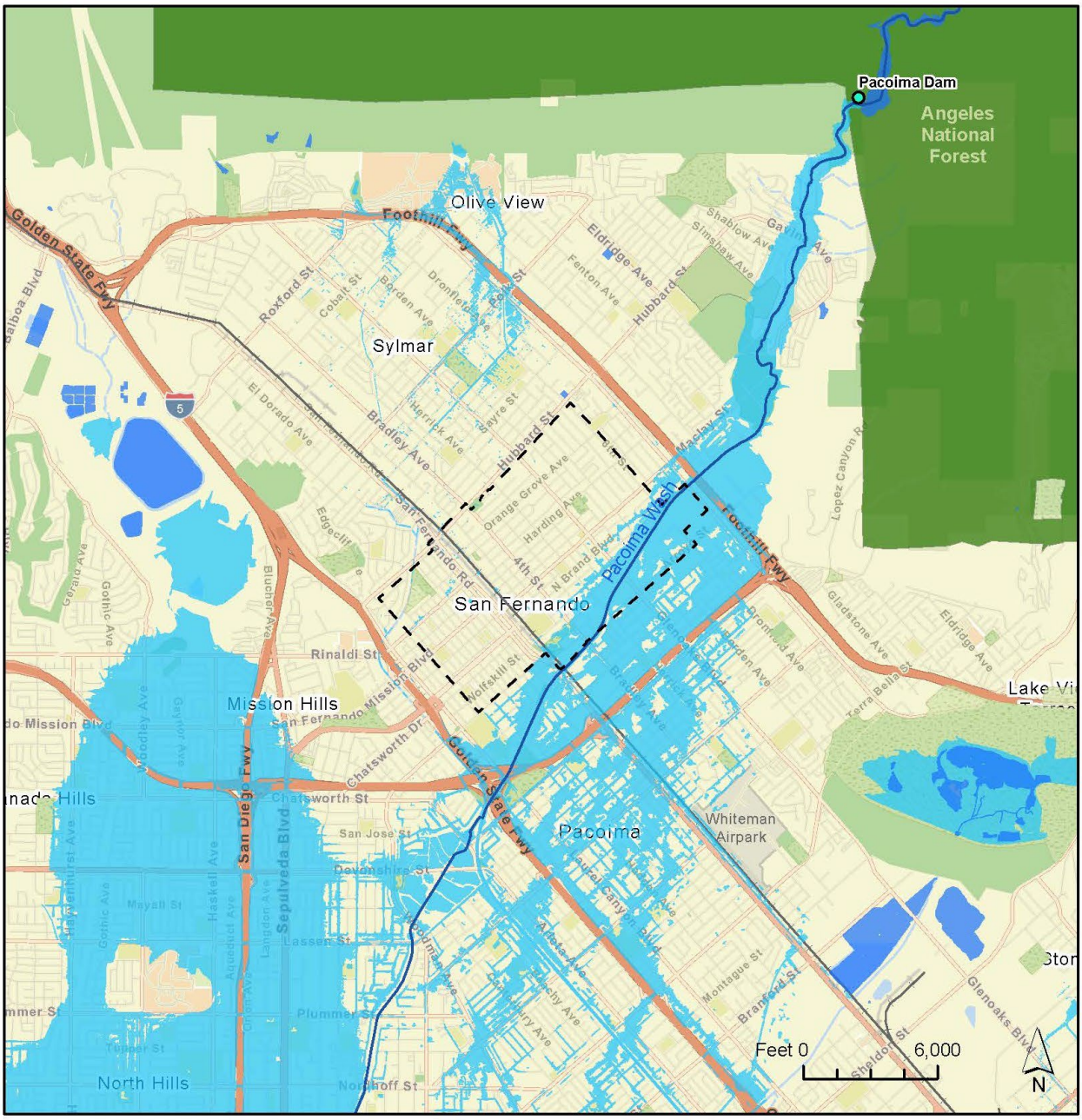
Parks

- Local Park
- National Park or Forest
- Regional Park

F. DAM FAILURE INUNDATION HAZARD

According to the California Department of Water Resources, the only part of the city susceptible to possible flooding is the commercial/industrial strip that is adjacent to the Pacoima Wash. This area could flood if the Pacoima Dam suffers a complete failure. The dam is normally maintained at one-quarter of its capacity and no longer allowed to reach full capacity to reduce potential dam failure. Additionally, average rainfall is low. The Pacoima Dam utilizes a monitoring system that provides early warning of a structural failure, thus making the probability of this type of flood event minimal. Figure 3 below shows the Dam Failure Inundation Areas for the city.

Figure 3: Dam Failure Inundation Areas



- City Boundary
- Reservoir
- Dam Innundation Area
- Pacoima Wash
- Pacoima Dam
- Railroads

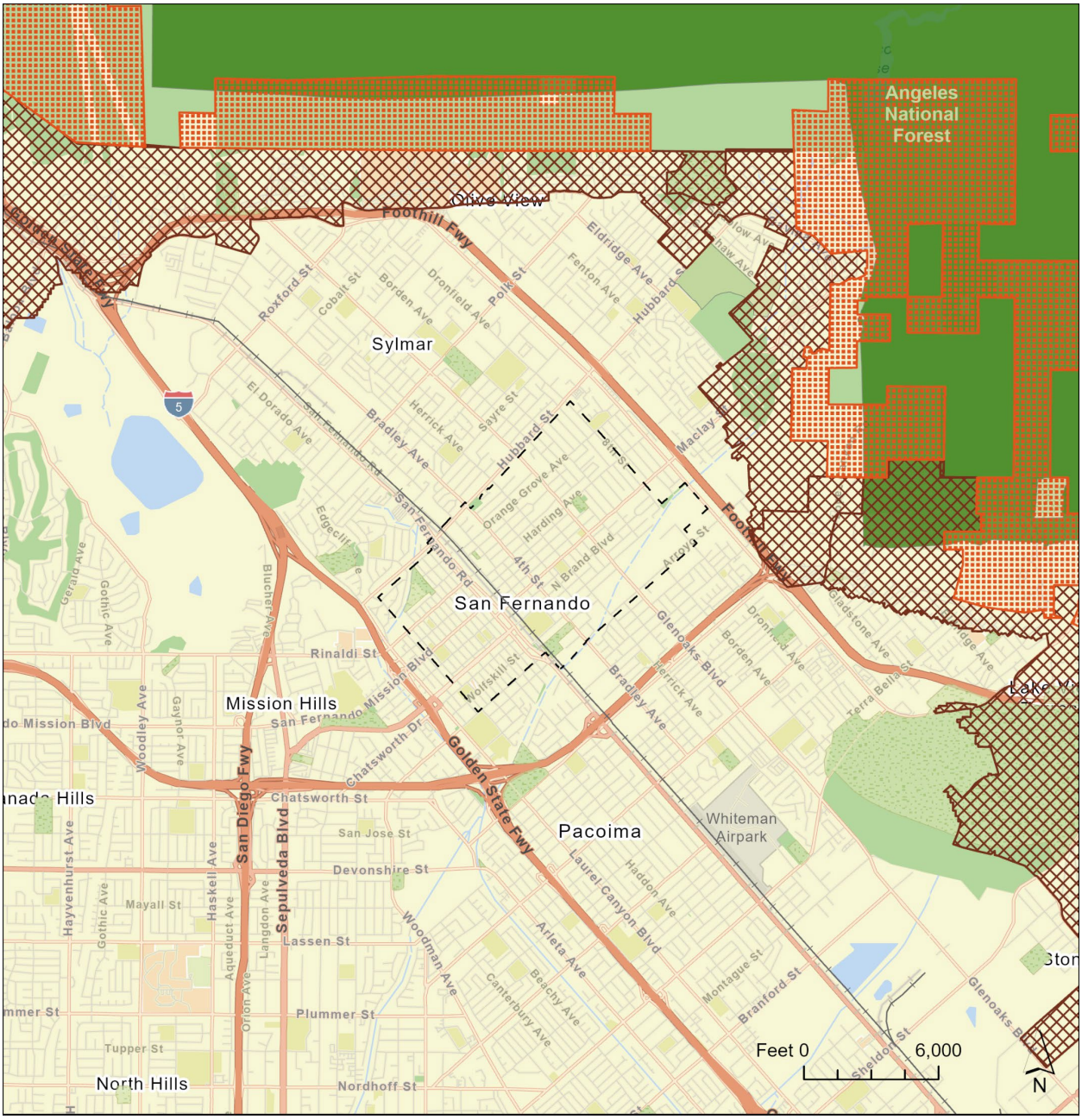
Parks

- Local Park
- National Park or Forest
- Regional Park

G. WILDLAND FIRE HAZARDS

Fire hazard severity zones are areas where environmental conditions create moderate, high, or very high wildfire risk. According to CALFIRE, there are no fire hazard severity zones located within the city. However, as shown in Figure 4, the city's proximity to the San Gabriel Mountains and nearby very high fire hazard severity zones does pose a threat of wildfire spreading into the city. Regionally, San Fernando is near other zones of high or very high wildfire severity, located to the northwest, north, and east. Windstorms increases the risk of wildland fires in the wildland urban interface (WUI) potentially spreading into the city when strong winds and wildland fires co-occur.

Figure 4: Fire Hazard Severity Zones



City Boundary

State Responsibility Area

Very High Fire Hazard Severity Zone

Local Responsibility Area

Very High Fire Hazard Severity Zone

Railroads

Parks

Local Park

National Park or Forest

Regional Park

H. PEAK LOAD WATER DEMAND

The existing water supplies available to the city include local groundwater extracted from the Sylmar Groundwater Basin. The City also has access to imported water from the Metropolitan Water District (MWD) as an emergency connection, and from the City of Los Angeles Department of Water and Power to be accessed only in extreme emergencies. The Sylmar Groundwater Basin has been adjudicated, and the City of San Fernando has a current allotted draw from the basin of 3,570 acre-feet per year. Additionally, the City has the right to receive stored water credit in the Sylmar Basin. In addition to these sources, the City of San Fernando 2020 Urban Water Management Plan (UWMP) discusses alternate water sources such as recycled stormwater, greywater (water used from bathroom sinks, showers, tubs, and washing machines), and desalinated seawater, as well as plans for reactivating one of the City's inactive ground wells (Well No. 3) to increase groundwater production capabilities.

The 2020 UWMP includes a Water Shortage Contingency Plan. The City is allotted 3,570-acre feet per year (AFY), which is below the natural safe yield of the Sylmar Basin estimated at approximately 7,140 AFY[54]. By 2030, the city is expected to have 629 AFY of available imported water from Metropolitan Water District and 3,570 AFY available from the Sylmar Basin. The 2030 supply (4,199 AFY) is expected to exceed 2030 demand (2,960 AFY) by 1,239 AFY. MWD's 2020 UWMP finds that MWD can meet full service demands of its member agencies with existing supplies from 2025 through 2045 during normal years, single dry year, and multiple dry years. Prolonged dry periods may impact the City's imported water supply capacities significantly due to reductions in MWD's storage reservoirs resulting from increases in regional demand.

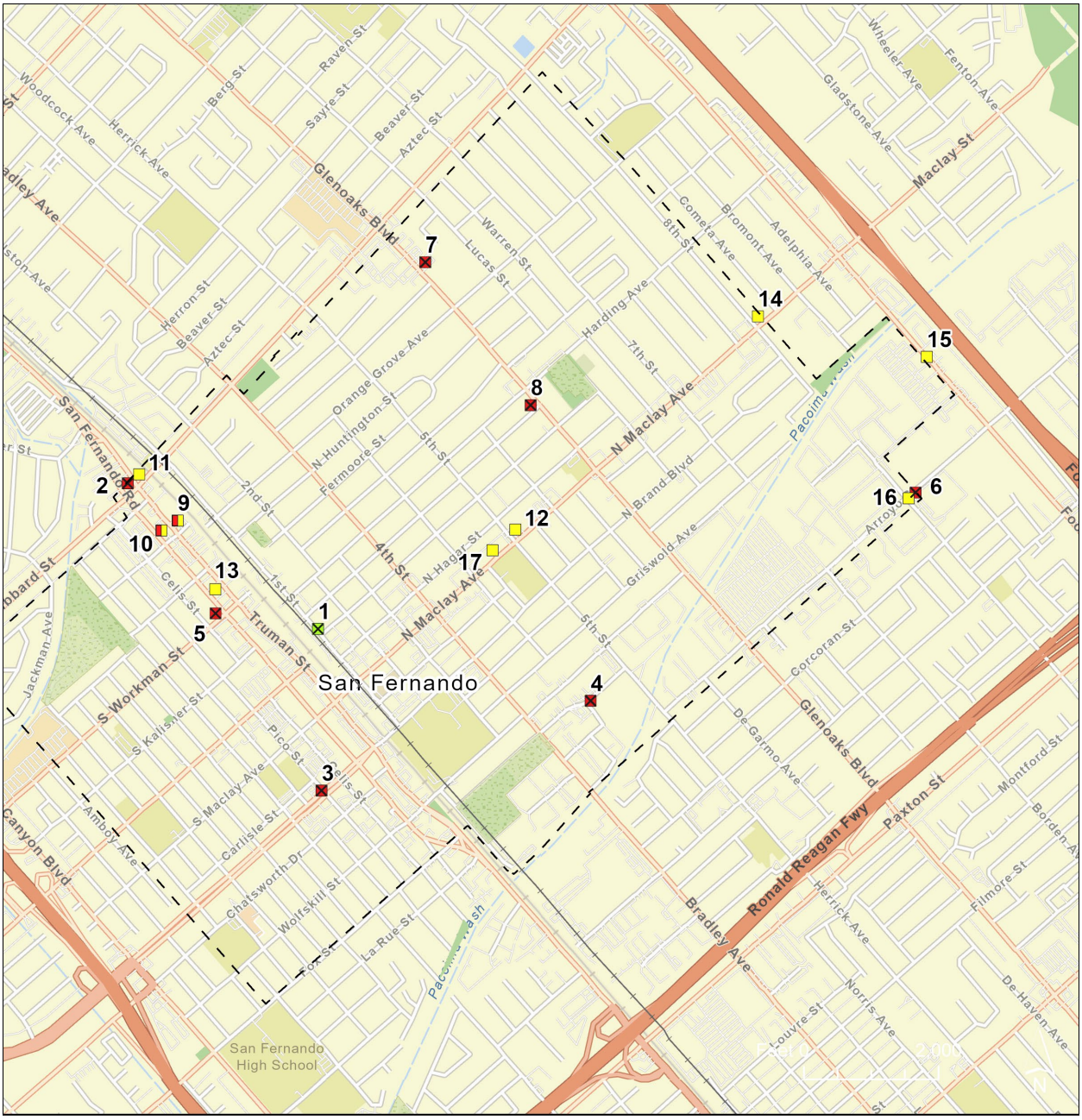
I. HAZARDOUS MATERIALS HAZARDS

A wide variety of hazardous or toxic materials are used in households, commercial businesses, and industrial operations and processes, including home and pool related chlorine products, chemical fertilizers, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials. The improper use and management of hazardous materials can pose a potential threat to the community and the environment.

Leaking underground storage tanks (LUST) and former industrial and commercial sites can expose the community and environment to hazardous materials. Gasoline storage tanks from former or current gas stations are subject to leaking over time, which can contaminate soil, groundwater, and/or surface water. Leaks require immediate action to reduce the spread of contaminants and reduce potential harm. Industrial and commercial activities sometimes utilize hazardous and toxic chemicals for operations, and spills or mishandling of these materials can result in site contamination.

According to the Department of Toxic Substances Control (DTSC), San Fernando contains hazardous material sites such as LUST sites, contaminated groundwater sites, and hazardous sites. There are a total of 17 sites in the city that contain hazardous materials (see Figure 5 and Table 1 below). The City of San Fernando contracts with the LAFD to monitor facilities that generate hazardous waste. The LAFD is the Certified Unified Program Agency (CUPA) that provides regulatory oversight over hazardous materials and hazardous waste programs in both the City of Los Angeles and the City of San Fernando.

Figure 5 Hazardous Materials Sites



City Boundary
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Hazardous Materials Sites
Permitted Underground Storage Tank (UST)
Leaking Underground Storage Tank (LUST)
Cleanup Program Site
Leaking Underground Storage Tank (LUST)/Permitted Underground Storage Tank (UST)
Completed - Case Closed

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Additional data provided by California Water Boards, 2021.

Table 1 Hazardous Waste Sites in the City of San Fernando

Figure 7 Map Number	Site Id	Site Name	Site Type	Site Status	Site Address	Contaminants Present	Hazard Zone
1	SL184531436	City National Bank Property	Cleanup Program Site	Completed - Case Closed	1321 1st Street	Volatile Organic Compounds	Seismic
2	T0603702259	Desert Petroleum #59 (Former)	LUST Cleanup Site	Completed - Case Closed	1753 San Fernando Road	Gasoline	Liquefaction, Seismic
3	T0603702247	GTE	LUST Cleanup Site	Completed - Case Closed	401 Brand Boulevard S	Gasoline	Seismic
4	T0603703955	GTE San Fernando Plant Yard	LUST Cleanup Site	Completed - Case Closed	510 Park Avenue	Gasoline	Dam Failure Inundation, Seismic
5	T0603702254	John Angel Property	LUST Cleanup Site	Completed - Case Closed	1404 San Fernando Road	Gasoline	Seismic
6	T0603713084	Pepsi Bottling Group	LUST Cleanup Site	Completed - Case Closed	1260 Arroyo Street	Diesel	Dam Failure Inundation, Seismic
7	T0603700025	Richard Sterman	LUST Cleanup Site	Completed - Case Closed	1955 Glenoaks Boulevard	Aviation	Seismic
8	T10000000589	Wm Waterston Trust	LUST Cleanup Site	Completed - Case Closed	1400 Glenoaks	None Specified	Seismic
9	T0603702250	Gem Fuel	LUST Cleanup Site	Open - Assessment & Interim Remedial Action	1601 Truman Street	Gasoline	Seismic
9	25541	Commercial Fueling Network	Permitted Underground Storage Tank (UST)	N/A	1601 Truman Street	N/A	Seismic
9	N/A	Truman Fuel	Permitted Underground Storage Tank (UST)	N/A	1601 W Truman Avenue	N/A	Seismic
10	T0603704772	Mission Car Wash	LUST Cleanup Site	Open - Remediation	1601 San Fernando Road N	Gasoline	Liquefaction, Seismic
10	FA0014075	Mission Carwash	Permitted Underground Storage Tank (UST)	N/A	1601 San Fernando Road	N/A	Liquefaction, Seismic
11	N/A	Arco #01904	Permitted Underground Storage Tank (UST)	N/A	1753 W Truman Street	N/A	Liquefaction, Seismic
11	T0603702251	Arco #1904	LUST Cleanup Site	Completed - Case Closed	1753 Truman Street	Gasoline	Liquefaction, Seismic

Figure 7 Map Number	Site Id	Site Name	Site Type	Site Status	Site Address	Contaminants Present	Hazard Zone
12	N/A	Arco - Maclay Inc.	Permitted Underground Storage Tank (UST)	N/A	601 N Maclay Avenue	N/A	Seismic
13	19752	Goodyear Tire Center #905946	Permitted Underground Storage Tank (UST)	N/A	1431 San Fernando Road	N/A	Seismic
14	N/A	Maclay Ave Investments LLC	Permitted Underground Storage Tank (UST)	N/A	1203 N Maclay Avenue	N/A	Seismic
15	FA0030348	Oky LLC, Dba: Sylmar Shell	Permitted Underground Storage Tank (UST)	N/A	13641 W Foothill Boulevard	N/A	Dam Failure Inundation, Seismic
16	FA0015007	Pepsi-Cola Bottling Group	Permitted Underground Storage Tank (UST)	N/A	1200 Arroyo Street	N/A	Dam Failure Inundation, Seismic
17	FA0023295	Roy's Auto Repair	Permitted Underground Storage Tank (UST)	N/A	537 N Maclay Avenue	N/A	Seismic

Notes: N/A = Not Applicable

[1] Waste Discharge Requirements (WDR) Sites are sites that operate under Waste Discharger Requirements issued by the State Water Resources Control Board or a Regional Water quality Control Board. WDDRs address non-designated waste discharges that are typically applied to land.

Source: California State Water Resources Control Board. 2021. GeoTracker. Available <https://geotracker.waterboards.ca.gov/>. Accessed 9/30/2021.

J. CLIMATE CHANGE HAZARDS

Climate change is driven by the human contribution of certain gases like carbon dioxide and methane into the atmosphere. These gases, commonly known as greenhouse gases or GHGs, absorb and re-emit heat that has been discharged from the Earth's surface. This works to trap heat near the earth's surface, increasing the natural greenhouse effect. Greenhouse gases from human activities have been collecting in the atmosphere since the 1800's and are warming the climate more and more every year. This rise in average temperatures across the globe affects precipitation patterns, temperature, and ocean water levels. San Fernando is expected to experience increases in temperatures, more severe storms, increases in extreme heat events, changes in precipitation patterns, extended drought conditions, and increasing wildfire risk because of climate change.

The Intergovernmental Panel on Climate Change (IPCC), a United Nations subgroup responsible with global advancement and communication of Climate Change understandings, has established several GHG emissions scenarios used to describe possible future GHG emissions and associated warming. Two of these are commonly used to compare possible futures and have been selected for this assessment, consistent with guidance from the California Government Office of Emergency Services (Cal OES) California Adaptation Planning Guide.

- The Representative Concentration Pathway (RCP) 4.5 represents a "medium emissions" scenario in which emissions peak around 2040 and then decline at the end of the century. This scenario assumes global agreement and implementation of GHG reduction strategies.
- The Representative Concentration Pathway (RCP) 8.5 represents a "high emissions" scenario in which emissions continue to rise throughout the 21st century.

1. TEMPERATURE

According to the California Energy Commission's Cal-Adapt data tool, the average maximum temperature is expected to increase in San Fernando throughout the century by up to 8.7°F. In addition, the number of extreme heat days per year is expected to increase from 3 extreme heat days to up to 33 extreme heat days.

2. PRECIPITATION

As per Cal-Adapt, the city's modeled historical (1961-1990) annual precipitation is a 30-year average of approximately 17.5 inches. While average annual precipitation is not expected to change significantly, according to Cal-Adapt, precipitation will likely fall in more intense storms within a shorter wet season. For much of the state, research suggests that wet years will become wetter and dry years will become drier and will extend for longer stretches of time, increasing the risk of extended drought.

3. WILDFIRE

California is experiencing unprecedented wildland fires with increasing wildfire risk across the state. In the Southern California region wildfire risk is influenced by a multitude of compounding factors that include its dry and warm Mediterranean climate, periodic episodes of offshore Santa Ana winds, drought events, the type and spatial distribution of vegetation, varying topography, large urban-wildland interfaces, past fire suppression attempts, and human activities.

Cal-Adapt projections, using statistical modeling, indicate that Southern California may experience a larger number of wildfires and burned area by the mid-21st century under RCP 8.5. Overall burned area is projected to increase over 60 percent for Santa Ana-based fires and over 75 percent for non-Santa Ana fires. Many factors affect projected future occurrence of wildfire as a result of climate change. There are significant uncertainties associated with the influence of climate change on wildfire frequency.

4. VULNERABILITY

Communities will be affected by climate change to varying degrees depending on their sensitivity to its impacts. Social vulnerabilities can greatly inhibit the adaptive capacity of a community. On a larger scale, communities may be more vulnerable because of limited access to financial capital and resources, various institutional barriers, social network limitations, and compromised access to critical infrastructure.

Certain population groups may be disproportionately harmed by the impacts of climate change in San Fernando. Vulnerable populations identified in San Fernando include but are not limited to:

- Unemployed,
- Young children,
- Older adults,
- Outdoor workers,
- Individuals with asthma,
- Individuals living in poverty,
- Low birth weights,
- Individuals with low educational attainment (less than a bachelor's degree), and
- Individuals that are linguistically isolated (non-English speakers).

The city's residents and workers rely on infrastructure for mobility, water, power, and communications. These systems are vulnerable to climate change, which in turn can reduce the ability of people to adapt. Health risks may arise or be exacerbated as a result of damaged infrastructure, such as from the loss of access to electricity, or impacts to sanitation, safe food, water supplies, health care, communication, and transportation.

External factors present in the San Fernando community that also contribute to climate change vulnerability include high housing cost burden and exposure to poor air quality and drinking water contaminants as well as other environmental conditions. Because climate change impacts are closely intertwined with vulnerable populations and inequities, addressing underlying inequities can help increase resilience for all residents of San Fernando.

K. ENVIRONMENTAL JUSTICE

Environmental degradation and pollution impact the health and well-being of communities. Historically, low-income and minority communities experience this impact at a higher rate than the broader population, as these communities tend to be located closer in proximity to hazardous or degraded environments. Environmental justice focuses on addressing the systemic causes of unequal environmental burdens placed on certain communities.

The State of California has developed regulation focused on improving the status of disproportionate environmental burden through Senate Bill 1000 (SB 1000), "The Planning for Healthy Communities Act" of

2016 which amended Section 65302 of the Government Code. Government Code Section 65040.12 defines environmental justice as "the fair treatment and meaningful involvement of people of all races, cultures and incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." State efforts towards environmental justice are primarily aimed at improving the status of disadvantaged communities through effective planning and policy decisions.

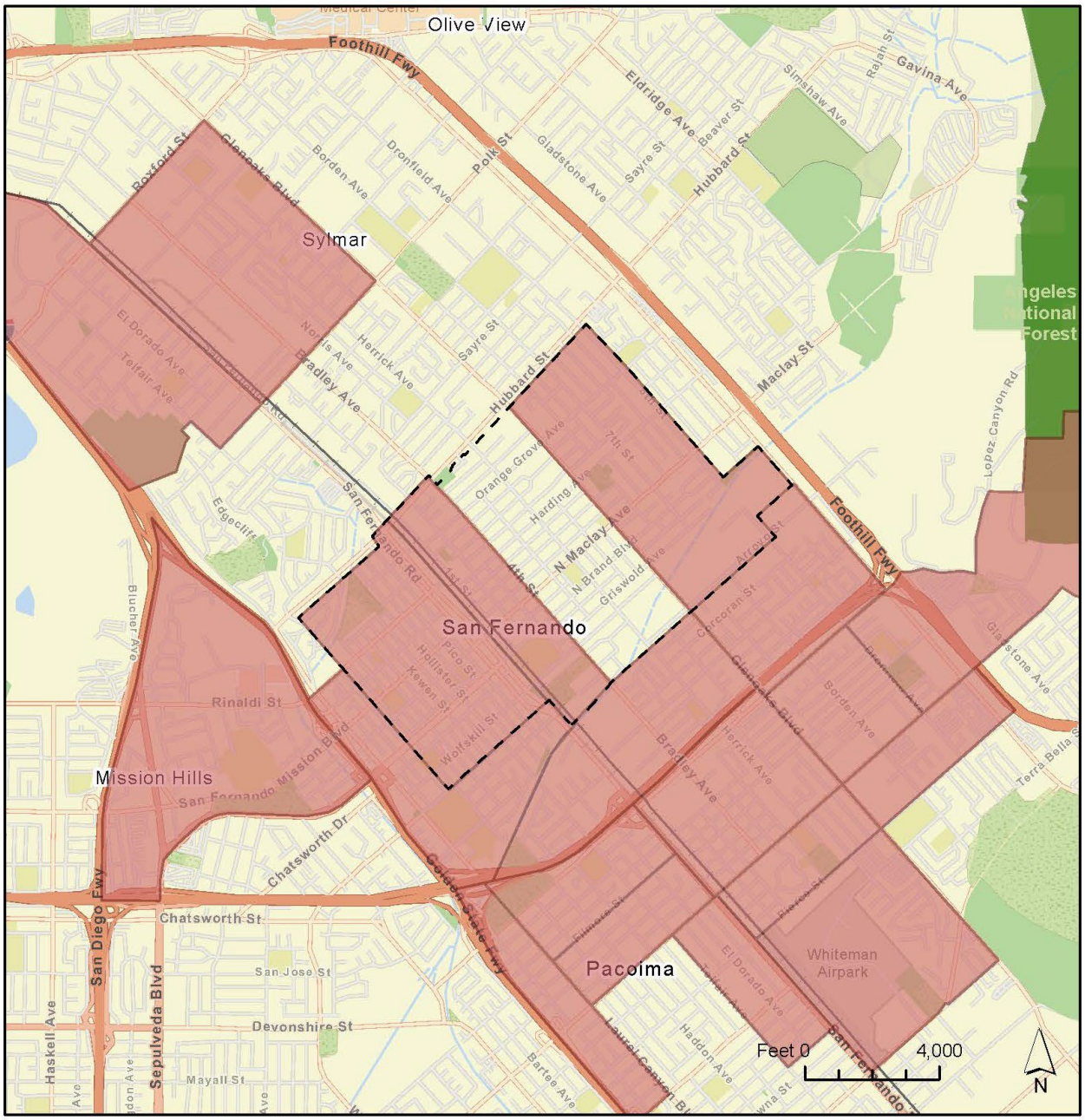
1. BRIEF HISTORY AND CULTURAL HERITAGE

San Fernando was founded in 1874 and has a rich cultural past. In the early 1800s, while California was still Mexican territory, a mix of Spanish, Indian, and Mexican residents arrived and settled in the area. Residents traded farm crops, olives, wine, and other goods. Today with a population of 24,754 people, San Fernando is one of the San Fernando Valley's smallest incorporated cities. Over 90 percent of the population of San Fernando identifies as Hispanic or Latino. The community maintains its identity with its rich cultural past, with celebrations such as Fiesta and the preservation of architecture from its Mexican Heritage.

2. CENSUS TRACTS WITH THE DISADVANTAGED COMMUNITIES DESIGNATION

Disadvantaged communities may be disproportionately exposed to environmental pollution and degradation. The City of San Fernando geographic area is made up of four census tracts. According to CalEnviroScreen, three of the four census tracts within the city are currently designated as disadvantaged communities, as shown in Figure 6.

Figure 6: Census Tract-Designated Disadvantaged Communities



City Boundary

Census Tracts with Disadvantaged Communities Designation

Railroads

Parks

Local Park

National Park or Forest

Regional Park

Imagery provided by ESRI and their licensors © 2021.
Disadvantaged Communities from OEHHA, 2021.

3. ENVIRONMENTAL JUSTICE COMMUNITY CONTEXT

The negative impact of environmental hazards and pollution on communities in California can be measured across five key focus areas, which address a range of environmental factors that influence a person's health. The determinants include the following:

1. Pollution Exposure, Air Quality, and Water Quality
2. Public Facilities
3. Safe and Sanitary Homes
4. Physical Activity, Food Access, and Public Health
5. Civic and Community Engagement

POLLUTANT EXPOSURE, AIR QUALITY, AND WATER QUALITY

Exposure to polluting substances in the air, water, and soil can have a significant impact on health outcomes. When it comes to air pollution, San Fernando experiences some of the worst air quality in the state.

Air quality is measured by particulate matter and ozone. Particulate matter (PM) consists of a mixture of solid particles and liquid droplets found in the air. Diesel particulate matter is emitted by diesel engines. Diesel particulate matter impacts are characterized by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) effects on human health. Ozone is a gaseous air pollutant that is exacerbated by cars, refineries, and other polluting industries. Ozone (O3) pollution is known to trigger wheezing and shortness of breath and can worsen asthma symptoms. Groups most sensitive to Ozone (O3) include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors. According to CalEnviroScreen, San Fernando experiences a higher ozone burden than 90 percent of other California census tracts (see Figure 7). Additionally, the southernmost portion of San Fernando experiences more diesel particulate matter than 80 percent of other California census tracts, likely due to proximity to the Interstate-5 freeway (see Figure 8). San Fernando's high ozone and diesel particulate matter directly correlate to areas in closest proximity to the three major highways that surround the city.

Figure 7: CalEnviroScreen Indicator Map – Ozone

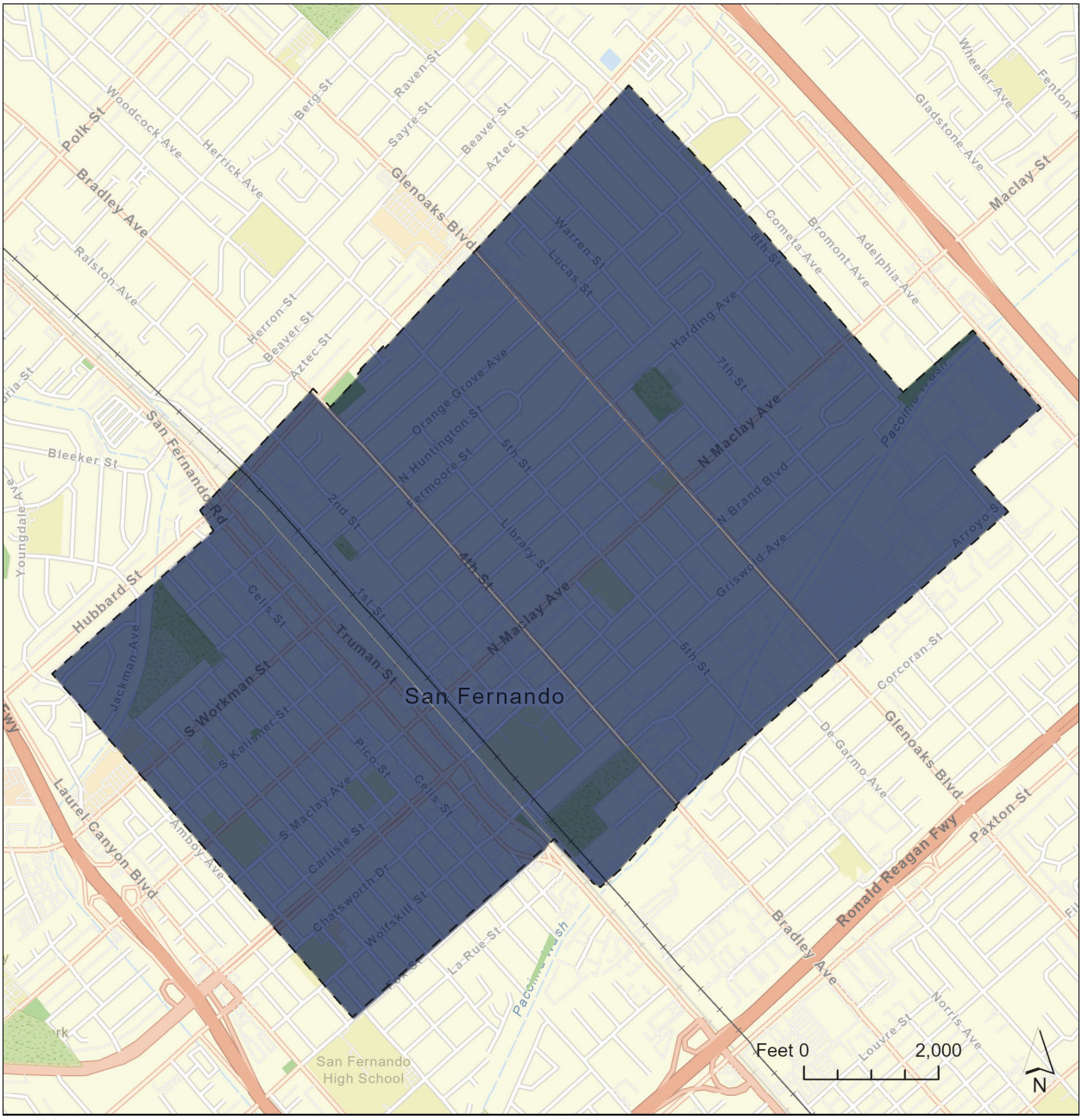
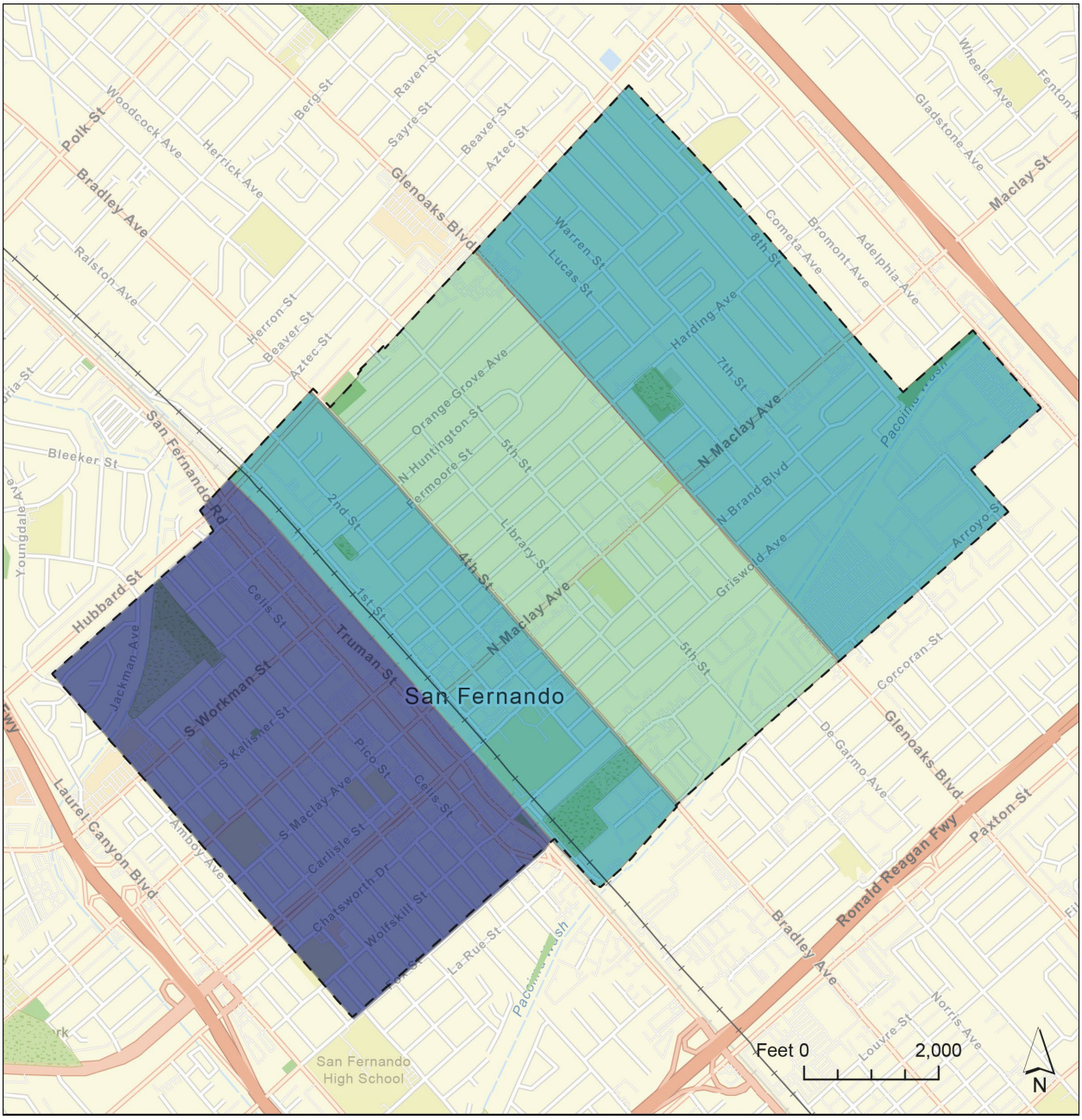


Figure 8: CalEnviroScreen Indicator Map – Diesel Particulate Matter



City Boundary

Railroads

Parks

- Local Park
- National Park or Forest
- Regional Park

Diesel Particulate Matter Percentile

90-100	40-50
80-90	**30-40**
70-80	20-30
60-70	10-20
50-60	0-10

Notes:
- The higher the percentile score, the greater the level of impact
- Bolded indicates percentile present in San Fernando

PUBLIC FACILITIES

Parks and open spaces are critical public facilities that enable communities to participate in physical exercise and social engagement. According to CalEnviroScreen, approximately 96 percent of San Fernando residents live within walking distance (half-mile) of a park or open space. The location of parks within the city is mostly adequate for community needs, however the number of parks available in relation to the population is below the typical nationwide average. The City's adopted Parks and Recreation Master Plan mapped a 0.5-mile service area radius around each park and recreation facility to identify areas of the city that may be underserviced. The spatial distribution of parks and recreation in the city is even across the community, with the exception of residential areas located in the northwestern and southeastern corners. The City's Parks and Recreation Master Plan also calculated that the city's current ratio of parkland per 1,000 residents is 0.75 acres. This is significantly lower than the typical park and recreation ratio of 9.5 acres/1,000 residents found nationally, according to agencies surveyed by the National Recreation and Park Association Agency. These measures indicate that the spatial distribution of parks within the city is mostly adequate for community needs, however the number of parks available in relation to the population is below the typical nationwide average.

Tree canopy is also a natural public amenity that can serve to promote walkability, improve heat protection, and mitigate pollution within an area. Currently, San Fernando neighborhoods include minimal tree coverage. The San Fernando City Council has adopted a 'Strategic Goal' to plant 2,000 trees between 2022 and 2027. This goal is supported through multiple efforts, including the Calles Verdes tree planting program in partnership with TreePeople and the California State Coastal Conservancy. The goal of the project is to increase the city tree inventory by more than 10 percent. The City also prioritizes increased tree canopy through the Urban Forest Management Plan. The plan aims to improve air quality and expand native habitat in the community through greening efforts. Expanding San Fernando's tree canopy would improve climate resiliency and would allow for increased physical activity and improve the overall health of the community.

Safe roads, bicycle, transit, and pedestrian facilities are also critical in promoting the health of a community and serve to prevent injury or fatalities associated with collisions. The design and maintenance of streets, sidewalks, and intersections can help to reduce the severity of collisions that could occur. According to the SafeTREC Transportation Injury Mapping System (TIMS), 8.25 percent of crashes in the City of San Fernando involved a collision with a pedestrian. Table 2 below displays the crash type data for the year 2018 in San Fernando.

Table 2 SafeTREC Crash Type Statistics for San Fernando (2018)

Type of Crash	Count	Percent (%)
Not Stated	1	1.03
Head-On	9	9.28
Sideswipe	8	8.25
Rear End	13	13.40
Broadside	50	51.55
Hit Object	4	4.12
Overturned	2	2.06
Vehicle/Pedestrian	8	8.25
Other	2	2.06

The City developed the Safe and Active Streets Plan in 2017. The plan aims to bolster active transportation throughout the community by improving pedestrian and bicycle safety for the future of San Fernando streets.

Broadband internet is a public facility that improves economic outcomes by allowing for expanded information and educational access. Individuals without access to the internet may be limited by the inability to access critical information that is published in online platforms. According to the U.S. Census, 2015-2019 American Community Survey, approximately 21 percent of households in San Fernando do not have access to a broadband internet superscription. In addition, approximately 13 percent of San Fernando households lack a computer in the home. Sufficient availability at public Wi-Fi hotspots within a community enables residents without personal home broadband to access the internet at key locations outside of the home. Currently, there are six Wi-Fi hotspot access points within San Fernando. Improving internet accessibility for residents of San Fernando may contribute to increased educational attainment and improved economic outcomes.

SAFE AND SANITARY HOMES

Access to safe and sanitary homes is critical to the general health of a community. Poor quality housing, resulting from structural aging, overcrowding, or landlord neglect, may expose community members to contaminants and health hazards that can impact life expectancy. According to the U.S. Department of Housing and Urban Development (HUD), housing costs in San Fernando is relatively high, with over 60 percent of renters spending more than 30 percent of their income on housing. Additionally, San Fernando has a higher rate of overcrowding and severe overcrowding than the region, with 24 percent of rental units occupied by more than one person per room and 11 percent of rental units occupied by more than 1.5 persons per room. The extent of the overcrowding and housing burden within San Fernando may indicate an issue regarding the safety and sanitation of homes within the city.

The City is establishing a Housing Division within the Community Development Department to implement new local housing programs, including a Rehabilitation Loan Program. The goal of the division is to improve housing conditions and quality of life for low-income households within San Fernando.

PHYSICAL ACTIVITY, FOOD ACCESS, AND PUBLIC HEALTH

Communities with higher pollution exposure and a lack of access to public facilities, safe and sanitary homes, and tree canopy, may experience poorer health outcomes, such as asthma and low birth rate, as a result of limited resources. According to CalEnviroScreen, the San Fernando community has a higher rate of asthma than over 80 percent of all census tracts in California. In addition, low birth weight is also significantly high across most of the census tracts in the city. Addressing pollution concerns and improving the environmental context in San Fernando can improve health outcomes and longevity relative to state levels.

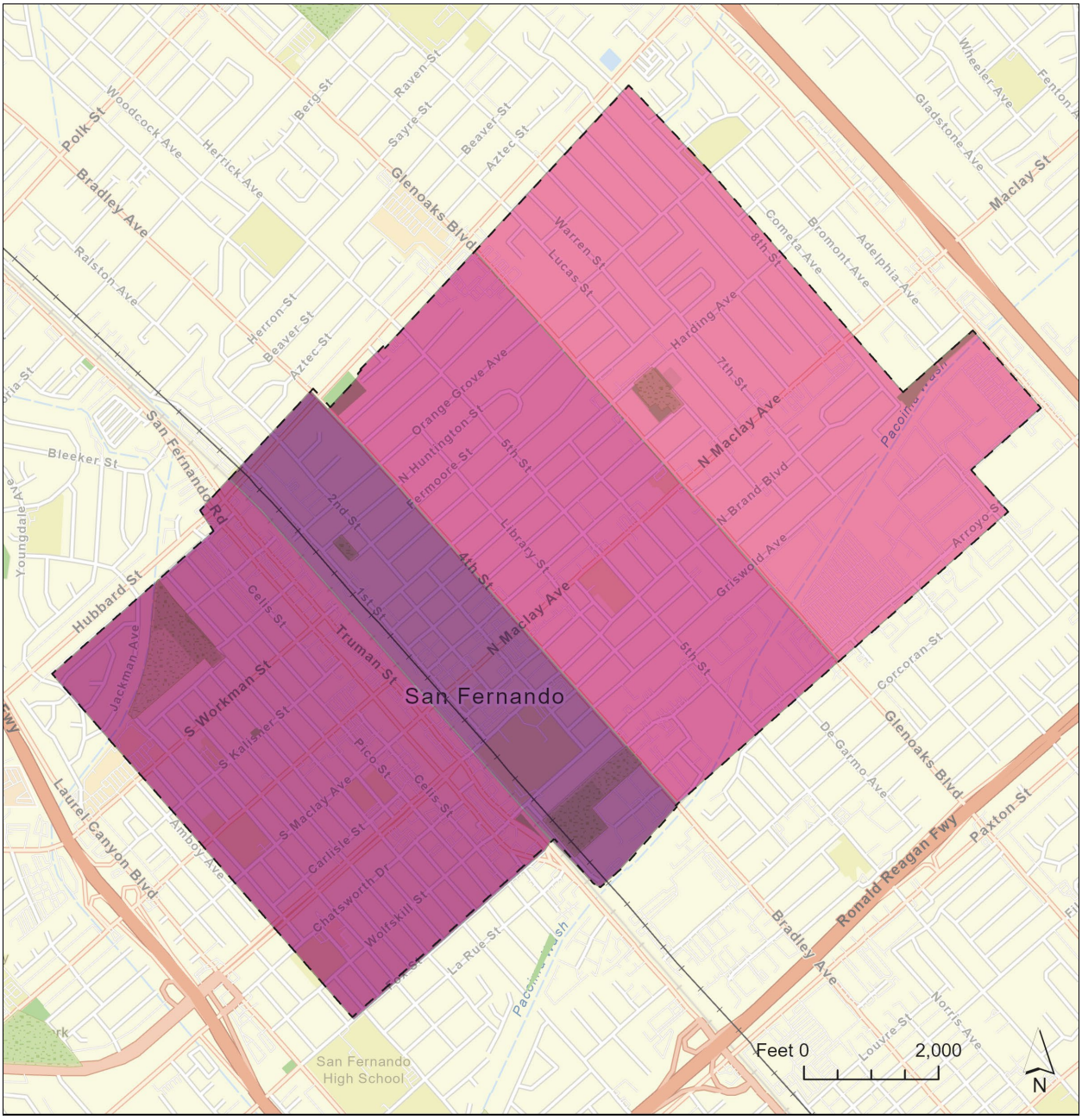
Having access to a nearby supermarket can encourage a healthier diet and eating behaviors, lower the costs of obtaining food, reduce long-term diseases, and lower the risk of food insecurity. According to the U.S. Department of Agriculture (USDA), a significant number (73 percent) of San Fernando residents live less than half mile from a grocery store. This is a higher accessibility percentage than 94 percent of other California cities. Therefore, access to supermarkets does not appear to be a pertinent issue for San Fernando residents. Although there is sufficient access to supermarkets within San Fernando, the city has relatively high access and availability to fast food restaurants. Prevalence and access of fast food within an area has been linked to poorer health outcomes associated with diabetes, sugar spikes, and weight gain.

CIVIC AND COMMUNITY ENGAGEMENT

Within San Fernando, barriers to civic engagement include low rates of educational attainment, high poverty rates, and language barriers. Reduced opportunities for community engagement associated with these

factors can lead to a reduced community agency and lack of community prioritization within public programs. According to CalEnviroScreen, two of the four census tracts in San Fernando have a higher percentage of people living below twice the poverty line than 80 to 90 percent of all census tracts in California (see Figure 9). Similarly, the City of San Fernando has low educational attainment (see Figure 10) and high linguistic isolation (see Figure 11) relative to the state of California. Addressing these key community characteristics within the City's engagement programs is critical to reducing barriers to civic engagement. The City has prioritized the development of new employment positions in the year 2022 to promote community engagement efforts for initiatives across the community.

Figure 9: CalEnviroScreen Indicator Map – Poverty



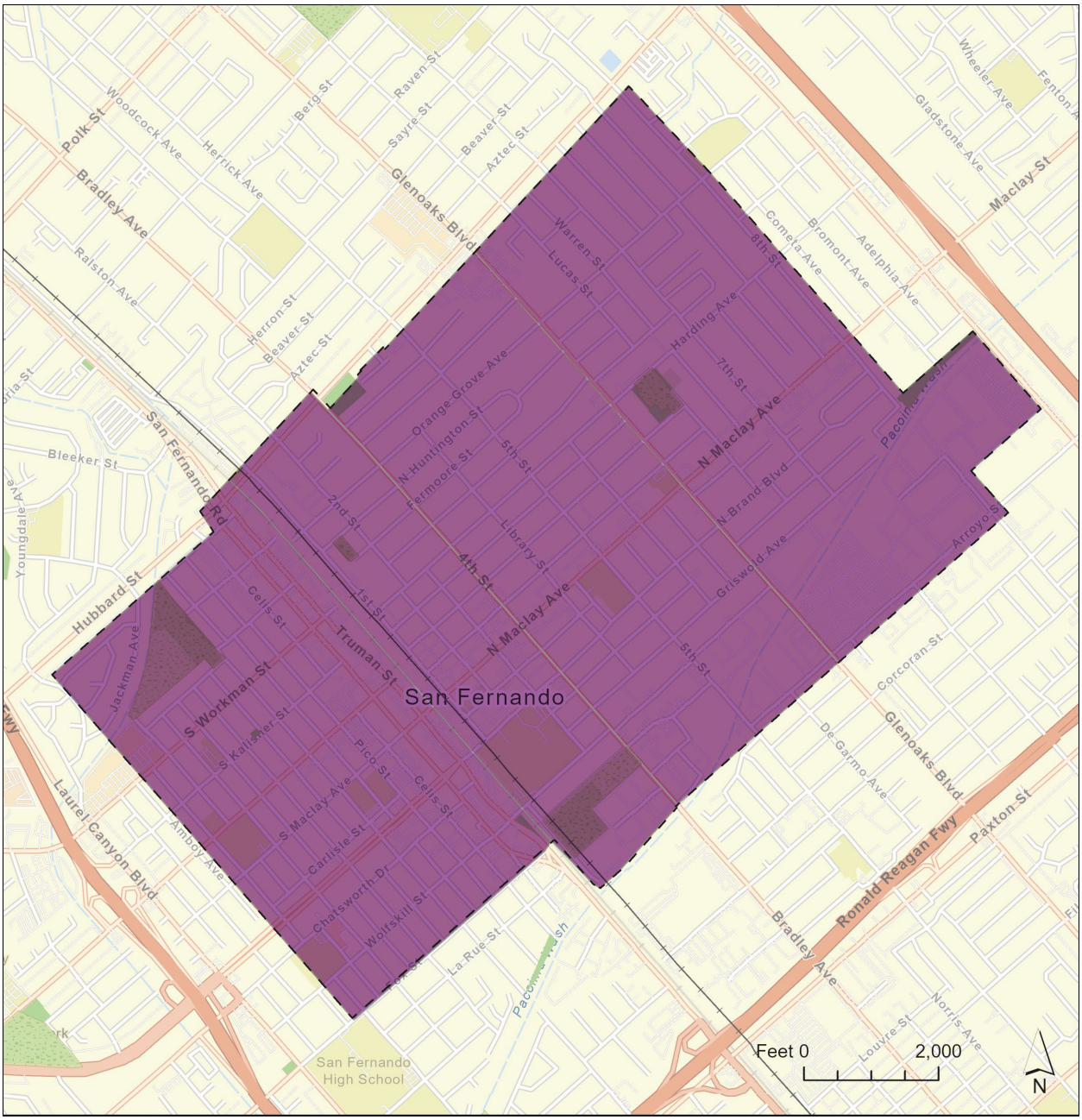
City Boundary
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Poverty Percentile
90-100
80-90
70-80
60-70
50-60
40-50
30-40
20-30
10-20
0-10

Notes:
- The higher the percentile score, the greater the level of impact
- Bolded indicates percentile present in San Fernando

Figure 10: CalEnviroScreen Indicator Map – Educational Attainment (Adults 25+ with less than a high school education))



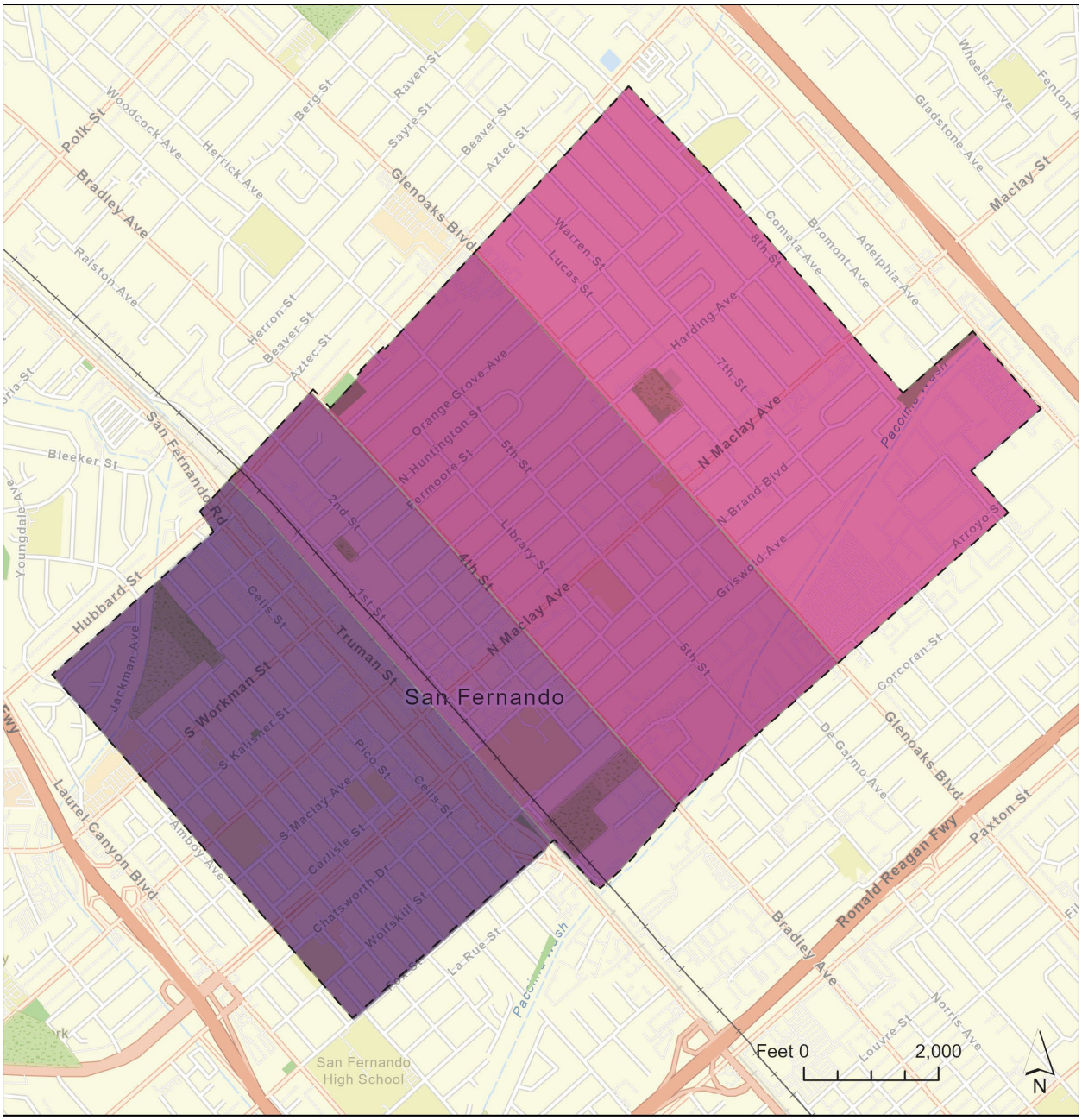
City Boundary
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Education Percentile
90-100
80-90
70-80
60-70
50-60
40-50
30-40
20-30
10-20
0-10

Notes:
- The higher the percentile score, the greater the level of impact
- Bolded indicates percentile present in San Fernando

Figure 11: CalEnviroScreen Indicator Map – Linguistic Isolation (non-English Speakers)



Imagery provided by ESRI and their licensors © 2021.
Additional data provided by California Office of Environmental Health Hazard Assessment, CalEnviroScreen 4.0, 2021.

L. GOALS AND POLICIES

Supporting the overall safety of a community is critical to fostering a healthy and livable environment for residents to thrive in. Adequate emergency response, hazardous material mitigation, and disaster preparedness are among the major contributors to community safety. The following goals and policies are related to the safety environment and hazard risk reduction in the City of San Fernando. The San Fernando General Plan Safety Element also sets forward goals and policies related to ensuring environmental justice in the City, particularly for the designated disadvantaged communities.

1. DISASTER PREPAREDNESS

GOAL 1.0

Citizens of San Fernando are protected from injury, loss of life, and property damage associated with natural hazards.

Objective

To protect the community from avoidable risk and harm by factoring natural hazards such as seismic hazards, flooding, landslides, severe weather events, and fires into community planning and outreach, maintenance and upgrades, and municipal operations.

POLICY

Policy 1.1. Regularly Update Plans: Update disaster preparedness and emergency response plans every 5 years, in a manner that is compliant with state and federal standards.

Policy 1.2. Invest in Critical Facilities: Dedicate funds to upgrade and maintain essential facilities (including EOC, Police/Fire Facilities, and City Hall) to make them more resilient to the potential impacts of natural disasters.

Policy 1.3. Evacuation Routes: Annually review evacuation mapping and response procedures to ensure consistency with updates to the regional context, including updates to FEMA mapping and current resource availability.

Policy 1.4. Public Awareness: Increase public awareness of hazard potential and disaster response strategies by disseminating critical information, such as evacuation routes, utilizing Alert San Fernando and other digital media resources.

Policy 1.5. Accessible Signage. Ensure informational signage related to hazards and disaster response is provided in multiple languages as appropriate.

Policy 1.6. Utilities: Ensure that utility services, including water and sewer services, are not interrupted in the case of a natural disaster.

Policy 1.7. Evaluate and Minimize Risks: Buildings and infrastructure will be periodically evaluated for seismic, fire, flood, and severe weather hazard risks and identified risks will be minimized by complying with California Building Code standards and other applicable regulations.

Policy 1.8. Secure Funds: Establish centralized internal procedures to coordinate efforts for securing funds that support risk reduction measures.

Policy 1.9. Locating Critical Facilities: Limit future development of critical facilities including, but not limited to, schools, hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities within identified hazard zones.

Policy 1.10. Multi-hazard Mitigation Plan: Prioritize the implementation of the mitigation strategies outlined within the 2020 San Fernando Multi-Hazard Mitigation Plan.

GOAL 2.0

San Fernando is informed and prepared to respond effectively to emergencies and unavoidable hazards.

Objective

To enhance the City's ability to react and respond during hazardous events through awareness of the potential risks, an understanding of how to respond to hazardous events, and preparation for hazard response and recovery.

POLICY

Policy 2.1. SEMS and NIMS Training: Increase City employee capacity through the Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) compliant training and Emergency Operations Center (EOC) drills to identify hazards, and assist in emergency preparedness, response, and recovery.

Policy 2.2. City Media and Communication Resources: Maintain the City's emergency communication policy and protocols and utilize City media resources, emergency alert notification systems, and program advertising to provide information and communicate with the community prior to, during, or after events posing risk to community health, safety, and welfare.

Policy 2.3. Vulnerable Populations: Incorporate procedures into emergency and hazard mitigation plans to take care of and prioritize vulnerable populations during hazardous events.

Policy 2.4. Promote Community-based and Volunteer Programs: Promote community-based programs in fire safety and emergency preparedness, including neighborhood-level and business programs and community volunteer groups such as CERT and Neighborhood Watch.

Policy 2.5. Responsive Neighborhood Groups: Encourage neighborhood and community-based groups to identify, consider, and prepare for the needs of neighbors with access and functional needs during disaster and emergency planning.

Policy 2.6. Evacuation Routes: Ensure that all residents have access to adequate and safe evacuation routes from their place of residence.

Policy 2.7. Constrained Access: Prioritize infrastructure improvements and safety programs in areas with constrained evacuation access.

Policy 2.8. Evacuation Plan Awareness: Ensure the safety of residents by identifying and communicating safe and viable evacuation routes in multiple languages and across mediums, as appropriate.

Policy 2.9. Safety Zones: Establish designated City safety zones to provide shelter-in-place refuge when evacuation routes become blocked.

GOAL 3.0

San Fernando recovers quickly and equitably following natural disasters.

Objective

To enhance the City's resilience to hazards by planning effectively for disaster recovery, anticipating future remediation priorities, and planning for effective and equitable rehabilitation.

POLICY

Policy 3.1. Post-disaster Evaluation: The City's essential facilities shall be the top priority in conducting post-disaster building evaluations.

Policy 3.2. Optimize Community Benefits: Ensure that post-disaster recovery decisions optimize long-term community and economic benefits.

Policy 3.3. Equitable Recovery: Ensure resources and recovery efforts are equitably distributed and that vulnerable populations receive adequate assistance to avoid permanent disruption or displacement after a disaster.

Policy 3.4. Assist Businesses: Assist local and small businesses in planning for continuity of operations and emergency preparedness.

2. SEISMIC AND GEOLOGIC ACTIVITY

GOAL 4.0

The San Fernando community is protected from loss of life, injury, property damage and destruction resulting from earthquakes and geologic hazards.

Objective

To limit the risks associated with seismic hazards by updating local practices, regulations, and facilities in a manner consistent with recognized best practices for safety and loss prevention.

POLICY

Policy 4.1. Require Geotechnical Reports: Geotechnical reports will be required for new development and infill projects in areas with the potential for liquefaction.

Policy 4.2. Plan Checks: Ensure that the Building Division implements thorough plan checks and inspections of structures vulnerable to seismic activity.

Policy 4.3. Facilitate Retrofits: Promote the retrofit and rehabilitation of existing weak structures and lifeline utilities, and the strengthening of certain critical facilities to increase public safety and minimize potential damage from seismic and geologic hazards.

Policy 4.4. Retrofit Program Awareness: Promote greater public awareness of existing state incentive programs for earthquake retrofit, such as *Earthquake Brace and Bolt,* to help property owners make their homes more earthquake safe.

Policy 4.5. Building Code Compliance: Adopt and enforce all new codes of the California Building Code (CCR Title 24, published triennially) containing the most recent seismic requirements for structural design of new development and redevelopment to minimize damage from earthquakes and other geologic activity.

Policy 4.6. FEMA Program Funding: Seek grant funding from the National Earthquake Hazard Reduction Program of the Federal Emergency Management Agency (FEMA) to retrofit facilities and develop programs to mitigate earthquake risks.

Policy 4.7. Seismic Risk Mapping: Proactively seek compliance with the Alquist-Priolo Earthquake Fault Zoning Act by utilizing resources provided by the California Geological Survey and the United States Geological Survey (USGS) to establish and maintain maps depicting affected parcels within the City.

Policy 4.8. Utility Security: Coordinate with local utility providers to ensure that City utility lines are hazard-secure and adequate response plans are available in the case of emergency.

3. HIGH WINDS

GOAL 5.0

San Fernando is prepared for the potential for adverse effects from high winds.

Objective

To prepare for the impacts of regional high winds through effective planning and program development.

POLICY

Policy 5.1. Development Review: Incorporate the consideration of high-wind risk in the review of new development and permit applications, including signage applications.

Policy 5.2. Dust Control: Require implementation of best practices for dust control at all excavation and grading projects.

Policy 5.3. High Wind Work Stoppages: Prohibit excavation and grading during high wind conditions, defined as instantaneous wind speeds that exceed 25 miles per hour by South Coast AQMD.

Policy 5.4. Monitoring Multi-hazard Threats: Continuously monitor multi-hazard threats during high wind and associated wildland or urban fire conditions. Allocate appropriate firefighting and emergency personnel resources to effectively respond to multi-hazard threats.

Policy 5.5. Electricity Hazards: Coordinate with Southern California Edison to ensure that existing plans and programs are in place to address wind hazard impacts, such as downed power lines, in a timely manner.

4. FLOODING

The city of San Fernando is not located within a flood hazard zone. Therefore, policies that require new development or essential facilities to be located outside of flood hazard zones are not necessary. Instead, policies are focused on minimizing dangers due to unlikely or temporary hazards such as fast-moving storm water in the Pacoima Wash fed by surface runoff.

GOAL 6.0

The risks of damages from flooding and drainage in San Fernando are managed and mitigated to minimal levels.

Objective

To avoid injury, loss of life, or property damage from the hazards associated with flood scenarios through planning and communication.

POLICY

Policy 6.1. Dam Failure Contingency Plan: Develop and maintain a contingency plan for the unlikely event of a failure of Pacoima Dam.

Policy 6.2. Runoff Management: Encourage the use of permeable materials and surfaces in new development and road repaving to decrease surface water runoff during storms.

Policy 6.3. Development Runoff Mitigation: Require all new developments to mitigate any increased flooding impacts on adjoining parcels, through grading that prevents adverse drainage impacts to adjacent properties, use of permeable surfaces or on-site retention of runoff.

Policy 6.4. Pacoima Wash Warning Signage: Post depth gauges and signage warning of the dangers of fast-moving water during storms in strategic locations around the Pacoima wash, using images and multiple languages as appropriate.

5. WILDLAND AND URBAN FIRE

GOAL 7.0

The community of San Fernando is protected from unreasonable risks due to wildland and urban fires.

Objective

To avoid injury, loss of life, property damage and destruction due to wildland or urban fires, through strategic planning and coordination.

POLICY

Policy 7.1. Coordination Across Agencies: Maintain cooperative working relationships among public agencies with responsibility for fire protection, including the City of Los Angeles Fire Department (LAFD), to reduce fire hazards, assist in fire suppression, and promote fire safety in San Fernando.

Policy 7.2. Fire Prevention Planning: Work with the LAFD to develop a fire prevention plan that lists major hazards, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.

Policy 7.3. Reduce Fire Hazards: Reduce fire hazards associated with older buildings, multi-story structures, and industrial facilities.

Policy 7.4. Code Compliance: Ensure that all new development and infill development meets or exceeds the California Code of Regulations Title 14 State Responsibility Area Fire Safe Regulations and Fire Hazard Reduction Around Buildings and Structures Regulations.

Policy 7.5. Provide Hazard Information: Provide technical and policy information regarding structural and wildland fire hazards to developers, interested parties, and the general public through all available media.

Policy 7.6. Water Supply: Maintain water supply infrastructure and ensure that San Fernando's water system has adequate water flow and stability to meet local fire department needs.

Policy 7.7. Design: Require fire-safe design as part of the site plan review process for new residential developments, including fire-resistant vegetation and adequate sprinkler systems.

6. HAZARDOUS MATERIALS

GOAL 8

San Fernando residents and businesses are protected from hazardous materials.

Objective

To minimize community exposure to hazardous and potentially hazardous materials, especially those that can cause or contribute to delayed, chronic and/or acute health effects.

POLICY

Policy 8.1. Hazardous Material Setbacks: Restrict the storage and processing of hazardous materials to areas where risks to residents are adequately minimized through setbacks or other measures.

Policy 8.2. Hazardous Material Transport: Maintain and implement specified travel routes for the transport of hazardous materials and wastes, and to the extent feasible routes should avoid residential and commercial areas.

Policy 8.3. Hazardous Waste Storage and Disposal: Enforce standards for storage and disposal of hazardous materials and waste, consistent with State and federal law. Regularly maintain a list of sites that pose the greatest risk of spills or related incidents. Prioritize engagement with owners of such sites to solicit voluntary implementation of methods that are more protective than State and federal standards.

Policy 8.4. Hazardous Material Incident Response: Coordinate with allied agencies to prepare for and respond to hazardous materials incidents, including the California Office of Emergency Services, the California Department of Toxic Substances Control, the California Highway Patrol, the Los Angeles County Department of Environmental Health Services, the City of Los Angeles Fire Department, the San Fernando Police Department, and other appropriate agencies in hazardous materials route planning and incident response.

Policy 8.5. Safe Household Disposal: Continue to update the City's website and other public information outlets with resources regarding the safe handling and disposal of household chemicals.

7. CLIMATE CHANGE

GOAL 9.0

The City has considered and adequately prepared for climate change-related hazards.

Objective

Increase the ability of the City and its residents to adapt to climate change.

POLICY

Policy 9.1. Capital Improvement: Incorporate consideration of climate change impacts as part of infrastructure planning and operation. Identify projects as part of capital improvement programs that should consider climate adaptation priorities.

Policy 9.2. Resilience Hubs: Establish Resilience Hubs as a way of providing additional alternatives to vulnerable populations of people experiencing homelessness, seniors and young children, low-income, non-white communities, linguistically isolated populations, and individuals with chronic health conditions.

Policy 9.3. Backup Power: Invest in sustainable backup power sources to provide redundancy and continued services for critical facilities during periods of high demand during extreme heat events or possible outages because of safety power shut offs and extreme weather.

GOAL 10.0

The City has minimized the risk associated with extreme heat and drought.

Objective

Increase resident preparedness and accessibility to resources in the predicted scenarios of increased frequency and duration of extreme heat events and related impacts.

POLICY

Policy 10.1. Green Infrastructure and Green Roofs: Utilize drought-tolerant green infrastructure projects including street trees and landscaped areas and encourage installation of green roof systems as part of cooling strategies in public and private spaces to help reduce the heat island effect and energy demand during extreme heat events.

Policy 10.2. Cooling Centers: Coordinate with Los Angeles County Department of Public Health to identify and map cooling centers in locations accessible to vulnerable populations and establish standardized temperature triggers for when they will be opened.

Policy 10.3. Building Efficiency: Encourage water and energy efficiency in buildings through upgrading appliances and building infrastructure retrofits to best prepare for fluctuating prices during peak demand periods of extreme heat events.

Policy 10.4 Improve Access to Indoor Cooling: Improve access to and use of air conditioning and other indoor cooling strategies, such as ceiling fans, air exchangers, increased insulation and low-solar-gain exterior materials, and address obstacles to the use of air conditioning and other indoor cooling strategies, especially for vulnerable populations.

Policy 10.5 Early Warning Systems on Extreme Heat: Partner with the Los Angeles County Health Department to develop and enhance disaster and emergency early warning systems to incorporate objective data and information on heat-illness.

Policy 10.6 Retain Electrical Services during Extreme Heat Events. Encourage Southern California Edison to retain and enhance lifeline programs for life sustaining services for vulnerable populations, especially due to hazards such as an increase in high heat days and the potential for related power disruptions.

Policy 10.7 Protect City Employees from High Heat. Evaluate protocols in place to limit City employee exposure to high heat and develop new methods of protection as necessary.

Policy 10.8 Advocate for Heat Risk Training for Employers. Advocate for training of employers and workers in industries with outdoor work in San Fernando, including assurance of adequate water, shade, rest breaks, and training on heat risk.

Policy 10.9 Require Water Conservation Measures in Buildings. Require enhanced water conservation measures in new development and redesign of existing buildings to address the possibility of constrained future water supplies and price hikes from demand which burden low-income households.

Policy 10.10 Reduce Water Demand and Use. Identify strategies to reduce water demand and increase water recycling across San Fernando, such as stormwater capture, grey water reuse and residential water use reduction.

GOAL 11.0

San Fernando has improved air quality, with reduced exposure to harmful air pollutants and particulate matter.

Objective

To reduce the community's exposure to harmful air pollutants that can impact quality of life and health by integrating land use plans, transportation plans, and air quality management to minimize the impact of existing and future land use development on air quality.

POLICY

Policy 11.1. Integrated Planning. Require consideration of air quality impacts and mitigating strategies in land use, circulation, and development plans to support a multimodal transportation system.

Policy 11.2. Program Support: Support programs that reduce congestion and vehicle trips such as the promotion of "Spare the Air" days.

Policy 11.3. Land Use Planning: Plan land uses to minimize exposure to toxic air pollutant emissions from industrial and other sources.

Policy 11.4. Particulate Matter: Reduce particulate matter emissions by prioritizing city-wide vehicle mile reduction measures.

Policy 11.5. Energy Emissions: Support efforts by the South Coast Air Quality Management District and public utility providers to reduce emissions from energy consumption.

Policy 11.6. Increased Accessibility: Improve accessibility for the City's residents to places of employment, commercial centers, and other establishments.

Policy 11.7. Alternative Transportation Facilities: Ensure that new development incorporates facilities and features that support active and multi-modal transportation, including pedestrian, bicycle, transit, and alternative fuel vehicle facilities.

Policy 11.8. Transit Oriented Development: Promote Transit Oriented Development (TOD) across the city by requiring trip reduction, alternative transit, and congestion management measures for discretionary projects.

8. PUBLIC SAFETY SERVICES AND CRIME PREVENTION

GOAL 12.0

San Fernando provides adequate emergency response and public safety services for the community's needs with a focus on community-based crime prevention.

Objective

To maintain superior emergency services in the city in order to limit preventable safety concerns and reduce crime.

POLICY

Policy 12.1. Police Staffing: Regularly monitor and review the level of police staffing to maintain sufficient levels of City law enforcement services and facilities to serve community needs.

Policy 12.2. Crime Tracking: Periodically track crime rates and prevalent incident types in the community to ensure resources are allocated appropriately to address the city-specific crime context.

Policy 12.3. Response Times: Address traffic congestion in areas that have been identified as being detrimental to achieving targeted emergency response times.

Policy 12.4. Community-Oriented: Continue to foster positive, peaceful, mutually supportive relationships between San Fernando residents and the police.

Policy 12.5. Recreation and Youth: Encourage development and operation of community and recreational facilities as a pre-emptive strategy to reduce youth-related crime. Expand opportunities for positive law enforcement and youth interaction.

Policy 12.6. Construction and Road Maintenance: Actively maintain the City's transportation infrastructure to ensure safe conditions for pedestrians, bicyclists, and vehicles, and prioritize improvements that increase safety for all modes of travel. Coordinate transportation construction projects to limit congestion and avoid unsafe conditions and disseminate project information on a regular basis to affected community members.

GOAL 13.0

The San Fernando community prioritizes the safety of residents, visitors and businesses designing the built environment to reduce opportunities for criminal activity.

Objective

To maintain a well-designed community environment in a manner that fosters safety and community well-being.

POLICY

Policy 13.1. Design Strategies: Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings.

Policy 13.2. Retrofitting: Retrofit City-owned public spaces, including parks, parking lots, and public facilities with adequate lighting and natural surveillance landscaping to limit criminal activity holistically.

Policy 13.3. Signage: Require residences and businesses to maintain visible and clearly legible signs and/or street numbers to shorten the response times of emergency personnel.

9. ENVIRONMENTAL JUSTICE

GOAL 14.0

The San Fernando community are meaningfully engaged in public decision-making processes, have equitable access to public facilities, healthy foods, clean air and water, and safe homes, and experience positive health outcomes.

Civic and Community Engagement

Objective

- Increase the number and diversity of community members engaged in local decision-making processes by instituting equitable engagement strategies.

POLICY

Policy 14.1. Equitable Engagement: Promote equitable engagement practices that serve to empower minorities and historically disenfranchised groups to participate in civic life.

Policy 14.2. Communication Techniques: Prioritize the utilization of a variety of communication techniques and tools to disseminate information to the public.

Policy 14.3. Evaluation: Periodically evaluate the City's progress in involving the broader community in decisions affecting the environment and quality of life.

Policy 14.4. Translation: Ensure that all public information is available in multiple languages and make translation services available at all community meetings.

Policy 14.5. Transparency: Prioritize transparency in City matters by providing regular updates on new and progressing City projects and informing the public about all decisions that impact the environment.

Access to Public Facilities and Healthy Foods

Objectives

- Increase safe and accessible opportunities for physical activity and improve multi-modal connections to services, jobs, and recreation.
- Enhance park and recreation amenities.

POLICY

Policy 14.6. Alternative Modes of Transportation: Promote land use patterns that support alternative modes of transportation, including walking, cycling and transit use to encourage community health through physical activity and accessibility.

Policy 14.7. Access to Public Spaces: Ensure that parks and other key destinations (schools, employment centers, resource areas) are accessible through alternative modes of transportation. **Policy 14.8. Safety Perception:** Promote the perception of safety in public spaces across the city, especially those spaces within identified disadvantaged communities, to increase participation in active play, exercise, and community events.

Policy 14.9. Park Amenities: Improve the quality of city parks by adequately maintaining existing park amenities (lighting, exercise equipment, etc.) and providing new amenities where feasible.

Policy 14.10. Park Development: Prioritize the development of parks across the city, with a focus on areas that lack access to safe open space and gathering locations.

Policy 14.11. Transit Amenities: Coordinate with local transit agencies to improve local transit amenities and regional connectivity to support accessibility for all community members.

Policy 14.12. Shuttle Program: Explore the opportunity for development of a City shuttle program, offering residents free transportation to key nodes within the community.

Policy 14.13. Multi-Modal Infrastructure: Enhance the pedestrian and bicycle infrastructure in San Fernando's designated disadvantaged communities to support active living opportunities for all residents.

Policy 14.14. Sidewalk Network: Improve pedestrian access and safety within San Fernando by addressing sidewalk network deficiencies in a strategic and timely manner.

Policy 14.15. Street Lighting: Prioritize improvements to street lighting in San Fernando by establishing developer responsibility for the design and installation of lighting on all streets within and adjacent to their sites.

Policy 14.16. Healthy Food Access: Promote community-based programs for healthy food access, including community gardens and farmers markets, to support the improvement of public health.

Policy 14.17. Childcare: Increase the availability of childcare for low-income residents across the city by incentivizing developers to include childcare facilities within residential and commercial projects.

Policy 14.18. Tree Canopies: Safeguard the natural environment and enhance the existing tree canopies across the city to reduce heat exposure and promote opportunities for active living.

Policy 14.19. Mental Health Facilities: Prioritize mental health within the community by supporting the on-going development of facilities and programs that are centered around mental well-being.

Exposure to Pollution

Objective

- Reduce exposure to pollution by sensitive receptors and limit polluting land uses.

POLICY

Policy 14.20. Pollution Reduction: Work with stationary pollutant generators to minimize the generation of pollution and associated impacts to surrounding residents through all available technologies.

Policy 14.21. Sensitive Land Uses: Protect all sensitive land uses (e.g., childcare facilities, schools, healthcare facilities, housing, parks, etc.) from pollution exposure, especially those uses within disadvantaged communities.

Policy 14.22. Sensitive Receptors: Locate sensitive receptors (i.e., residences, schools, retirement homes, hospitals, etc.) and vulnerable communities away from significant pollution sources of air pollution and, as necessary, implement measures (such as filtration systems) on new development to avoid significant health risks related to air pollution.

Safe and Sanitary Homes

Objective

- Improve the quality of existing stock housing by providing resources, increasing awareness of tenants' rights, and enforcement.

POLICY

Policy 14.23. Home Maintenance: Promote and administer programs that increase resident awareness of property maintenance resources and tools to sustain neighborhood quality.

Policy 14.24. Housing Rights: Prioritize the maintenance of safe and sanitary homes across San Fernando by promoting tenant's rights through resource and information dissemination.

Policy 14.25. Community Preservation: Broaden the role of Community Preservation in ensuring that homes within San Fernando are safe and adequate for human habitation.

Policy 14.26. Housing Division: Establish a housing division focused on improving housing conditions and quality of life for low-income households within San Fernando.

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M. IMPLEMENTATION MEASURES AND PROGRAMS

Table 2 identifies implementation measures for the Safety Element. All implementation measures have been assigned a time frame necessary for completion: short term (1-3 years), intermediate term (3-5 years), and long term (5 + years). Funding needs have also been identified: Low (ongoing staff time or a one-time relatively low cost), medium (requires technical studies and analyses), and high (requires capital investment).

Table 2: Safety Implementation Measures

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
Disaster Preparedness					
1	**Community Risk Assessment.** Conduct a community risk assessment to identify critical facilities and community assets.	Medium	Short Term	All City Departments	Medium
2	**Climate Change Risk Assessment**. Conduct a detailed climate change vulnerability assessment to identify potential risks and vulnerable populations and assets. Include a fire hazard risk assessment consistent with the latest OPR Technical Advisory. Develop adaptation strategies to reduce risk and increase resilience. Prioritize programs and funding for populations and critical assets most likely to be impacted by climate change.	High	Short Term	Planning Division, Public Works, Recreation and Community Services	Medium
3	**Emergency Evacuation Scenarios.** Evaluate evacuation route capacity, safety, and viability under a range of emergency scenarios as part of the next update to the LHMP or emergency operation plan, in accordance with AB 747.	High	Short Term	Building & Safety, Planning Division, Recreation and Community Services, Police Department	Medium
4	**Multi-Hazard Mitigation Plan.** Implement the programs and mitigation as outlined within the 2020 San Fernando Multi-Hazard Mitigation Plan.	High	Long Term	All City Departments	High
5	**Safety Information Campaign.** Develop an information program to familiarize citizens with seismic risk and to develop seismic awareness. Develop an educational campaign for residents and business owners to learn what to do during an earthquake and how to better prepare for an earthquake.	Medium	Short Term	Recreation and Community Services, Planning Division. Police Department	Low
6	**Maintenance Fund.** Re-evaluate development impact fees to cover costs of maintaining community fire breaks and other similar activities.	Medium	Intermediate Term	City Manager's Office, Planning Division	Medium

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
Seismic and Geologic Activity					
7	**California Building Codes.** Adopt the latest version of the California Building Code (CCR Title 24, published triennially) when released.	High	Short Term	Building & Safety Division	Low
8	**Earthquake Hazard Reduction Ordinance.** Update zoning code to require strengthening of existing wood-frame buildings with soft, weak, or open-front wall lines in housing constructed before 1980.	Medium	Intermediate Term	Building & Safety Division, Planning Division	Low
9	**Community Preservation.** Continue the code enforcement program, including identification of pre-1933 structures of large scale or occupied by large numbers of people, and require correction or demolition of structures found to be dangerous.	Medium	Long-Term	Community Preservation	Low
10	**Seismic Retrofit Incentive Program.** Develop a retrofit incentive program to help reduce earthquake hazards, focused on existing public facilities as well as existing multifamily housing constructed prior to 1980.	Medium	Intermediate Term	Building & Safety Division	Medium
High Winds					
11	**Design Review.** Develop guidelines for multi-hazard design measures that mitigate the effects of high winds and consider other potential risks.	Medium	Intermediate Term	Planning Division, Building & Safety Division	Low
12	**Dust Control.** Develop guidelines for dust control at all excavation and grading projects, including addressing high wind conditions.	Medium	Intermediate Term	Planning Division, Building & Safety Division	Low
Flooding					
13	**Flood Control Maps.** Regularly update City's maps to reflect latest FEMA designations.	High	Long Term	Planning Division, Public Works	Low
14	**Update Zoning Code.** Update zoning code to require: • On site stormwater runoff retention • Limit stormwater runoff impacts on adjacent properties	Medium	Intermediate Term	Planning Division, Public Works, Building & Safety Division	Low
15	**Dam Failure Contingency Plan.** Coordinate with the operator of the Pacoima Dam to develop and maintain a contingency plan in the unlikely event of a dam failure.	Medium	Intermediate Term	Public Works	Medium
16	**Warning Signage.** Post warning signage and depth gauges at strategic locations near the Pacoima Wash to warn community members of the danger of storm runoff and a provide a method for assessing the depth of runoff.	Low	Short Term	Public Works	Low

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
Wildland and Urban Fire					
17	**On-Site Fire Suppression.** Require, where appropriate, on-site fire suppression systems for all new commercial and industrial development to reduce the dependence on fire department equipment and personnel.	Medium	Short Term	Los Angeles Fire Department, Building & Safety Division, Planning Division	Low
18	**Zoning Code Updates.** Update zoning code to require that ▪ New development provides emergency access (i.e., two viable points of ingress and egress) for emergency vehicles and evacuation in the event of a fire. ▪ All existing and new homes and businesses have visible street addressing and signage.	High	Short Term	Planning Division, Building & Safety Division	Medium
19	**Fire Suppression Guidelines.** Develop fire suppression water system guidelines and implementation plans for existing and acquired lands, including fire protection water volumes, system distribution upgrades, and emergency water storage.	Medium	Intermediate Term	Los Angeles Fire Department, Building & Safety Division	Medium
20	**Water Assessment.** Confirm that water pressure is adequate for firefighting purposes in existing and future developed areas.	High	Short Term	Los Angeles Fire Department, Building & Safety Division, Public Works	Low
Hazardous Materials					
21	**Setbacks.** Determine and enforce the use of adequate buffer zones between the installation and the property boundaries sufficient to protect public safety for industries which store and process hazardous or toxic materials in the City.	High	Intermediate Term	Building & Safety Division, Planning Division	Low
22	**Proper Containment.** Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state, and federal standards.	High	Intermediate Term	Public Works, Building & Safety Division, Planning Division	Low
23	**Remediation Strategies.** Establish protocols for regular coordination with regulating agencies regarding remediation strategies for hazardous and toxic materials.	Low	Short Term	Building & Safety Division, Planning Division	Low
24	**Hazardous Materials Inventory.** Develop an inventory of hazardous materials used by businesses in the city. Maintain this inventory as a living document.	Medium	Short Term	Community Preservation	Low

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
25	**Contaminated Sites.** Maintain a public record of property locations, which contain hazardous materials, including a timetable for and the extent of remediation to be expected.	Medium	Short Term	Building & Safety Division, Planning Division	Low
Climate Change					
26	**Resilience Hubs.** Establish public facilities as designated resilience hubs by providing resources such as cooling, power, or water which may not be accessible to all the population in San Fernando during events of extreme heat, drought, or other natural disasters.	High	Medium Term	Planning Division, Recreation and Community Services	High
27	**Green Infrastructure Improvements.** Increase availability of public green space, urban forests or street trees and general shading features to mitigate urban heat island effects.	Medium	Long Term	Public Works, Recreation and Community Services, Planning Division	High
28	**Green Roofing.** Explore the opportunity to incorporate green roof systems into local design standards for new multifamily and mixed-use developments.	Medium	Short Term	Planning Division, Building & Safety Division	Low
29	**Retrofitting for Water and Energy Efficient Design**. Retrofit existing buildings, when possible, to incorporate water and energy efficient design. Consider purple pipes and on bill financing of building electrification as programs to implement.	Low	Long Term	Public Works, Building & Safety Division	High
30	**Retrofitting Homes with Heat Pumps.** Create a program to help fund property owners to convert HVAC units to heat pumps, which provide water heating and space heating in addition to cooling and can improve indoor air quality and community adaptation to extreme heat. Include a microgrid energy storage component to increase power reliability. Prioritize at-risk populations for retrofit incentives.	High	Intermediate Term	Building & Safety Division and Public Works	Medium
31	**Building Efficiency.** Require the incorporation of water and energy efficiency strategies into new development projects to improve the adaptability of the buildings to extreme heat and drought.	Medium	Short Term	Planning Division, Building and Safety Division	Low
32	**Updating Building Code Standards.** Explore the feasibility of adopting reach codes that seek to reduce the heat island effect.	Medium	Intermediate Term	Planning Division, Building & Safety Division	Low
33	**Creating Pedestrian Shade Structures.** Evaluate San Fernando's zoning ordinance to encourage awnings, canopies, arcades and/or colonnades that can encroach into required setbacks and public sidewalk areas to create shade for pedestrians in certain circumstances or in specific areas of the City.	Low	Short Term	Planning Division, Building & Safety Division	Medium

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
34	**Upgrade Park and Recreational Facilities**. Ensure all park and recreational facilities include tree canopy, shade structures and materials with low solar gain to improve usability on high heat days and reduce heat retention.	Low	Long Term	Public Works, Recreation and Community Services	High
35	**Education on Heat Related Illness.** Incorporate links and references on the City website and interpretive signage at transit facilities, parks, and community centers that provide education on heat related illness and personal care steps.	High	Long Term	Recreation and Community Services, Public Works	Low
36	**Heat Vulnerable Assistance Programs.** Explore the feasibility of developing a program to assist the public in accessing cooling infrastructure for in-home use, such as ceiling fans, air exchangers, increased insulation and low-solar-gain exterior materials.	Medium	Intermediate Term	Recreation and Community Services	Medium
37	**Retain Water Services during Extreme Heat Events.** Establish a lifeline program for vulnerable populations to sustain water services during high heat days.	High	Intermediate Term	Building & Safety Division, Public Works	Medium
38	**Residential Water Use Information**. Disseminate information on the City webpage and within vulnerable communities regarding residential water use reduction,	High	Short Term	Recreation and Community Services, Public Works	Low
39	**Residential Water Use Incentives.** Evaluate the feasibility of developing an incentives program for residential water use reduction, focusing incentives on the needs of vulnerable and disadvantaged communities.	Medium	Short Term	Recreation and Community Services, Public Works	Low
40	**Air Quality Enforcement.** Implement emission reduction standards in the discretionary review of all planned development projects. Use “spare the air” days and VMT reductions to improve local air quality.	High	Intermediate Term	Planning Division, Building & Safety Division	Low
41	**Active Transportation.** Implement alternative transportation requirements in the discretionary review of all planned development projects.	Low	Intermediate Term	Planning Division, Building & Safety Division.	Low
42	**Education on Health Effects of Climate Change.** Update existing City-run educational programs and campaigns to incorporate information regarding potential health effects of climate change, particularly associated with worsening air quality and extreme heat days, and personal care steps.	High	Short Term	Recreation and Community Services	Low

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
Public Safety Services					
42	**Police Department Staffing Ratio.** Work with the police department to establish a concrete resource needs determination to sustain minimum staffing levels.	High	Short Term	Police Department, City Manager's Office	Low
43	**Crime Prevention Design.** Update zoning code to ensure that site design and planning techniques that reduce the potential for criminal activity (e.g., CPTED) are included.	Medium	Short Term	Police Department, Building & Safety Division, Planning Division	Medium
44	**Traffic Study.** Conduct a traffic study and develop a traffic mitigation strategy in areas where response time targets are not achieved due to congestion.	Medium	Intermediate Term	Police Department	Medium
45	**Community and Recreational Programs.** Establish/expand community and after-school programming for at-risk youth.	Medium	Intermediate Term	Recreation and Community Services	Medium
Environmental Justice – Civic and Community Engagement					
46	**Equitable Engagement Toolkit.** Develop an equitable engagement toolkit for City staff that establishes strategic engagement practices tailored to the diversity needs of San Fernando.	High	Short Term	City Manager's Office	Low
47	**Annual Training.** Require all City staff to undergo annual diversity and equity training as part of an effort to improve community accessibility and empower historically disenfranchised groups.	Medium	Intermediate Term	City Manager's Office	Medium
48	**ESL Workshops.** Host a series of City-sponsored English as a Second language (ESL) workshops focused on writing, speaking, and vocabulary for the English language.	Medium	Intermediate Term	Recreation and Community Services	Medium
Environmental Justice – Access to Public Facilities and Healthy Foods					
49	**Park Maintenance.** Develop a park maintenance program that comprehensively assesses the quality of City parks and establishes plans for amenity improvement.	Medium	Intermediate Term	Recreation and Community Services	Medium
50	**Sidewalk Inventory.** Develop an ongoing inventory of current sidewalk conditions and the sidewalk network availability.	Medium	Intermediate Term	Public Works	Low
51	**Sidewalk Conditions.** Establish a priority-based program for addressing identified deficiencies in the sidewalk network, as identified in the inventory of sidewalk conditions.	Medium	Intermediate Term	Public Works	Low
52	**Implementation Plan.** Address identified sidewalk deficiencies within the Safe and Active Streets Implementation Plan.	Medium	Intermediate Term	Public Works	High

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
53	**Street Lighting.** Require all new projects to include a street lighting plan for all streets within and adjacent to their sites as part of the site plan approval process.	Medium	Short Term	Building & Safety, Planning Division	Low
54	**Park Funding.** Explore various resources for the funding of park development in the form of grants and sponsorship from local corporations.	Medium	Intermediate Term	Recreation and Community Services	Low
55	**Private Park Ordinance.** Develop an ordinance for private park land dedication requiring new residential development projects to dedicate park land for its new residents in lieu of paying a park impact fee.	Medium	Short Term	Building & Safety, Planning Division, Recreation and Community Services	Low
56	**Transportation Inventory.** Perform a comprehensive assessment of all existing transportation amenities, including bus shelters, bus stop locations and transit information programs, and establish priority areas for improvements.	Medium	Intermediate Term	Public Works	Medium
57	**Public Campaign.** Create a public information campaign focused on informing all residents, especially those from disadvantaged communities, about the status, impacts, and safety of the East San Fernando Valley Light Rail project.	High	Short Term	Planning Division and Public Works	Low
58	**Bicycle Infrastructure.** Require all new multifamily development to incorporate bicycle infrastructure, such as bicycle storage facilities, bicycle repair resources, and resident bike sharing programs.	Medium	Short Term	Building & Safety, Planning Division	Low
59	**Healthy Food Campaign.** Disseminate information and resources related to local healthy food sources for interested individuals within the community.	Medium	Intermediate Term	Recreation and Community Services	Low
60	**Farmers Markets Assessment.** Work with local stakeholders to identify locations conducive to hosting farmers markets and community gardens across the city.	Medium	Intermediate Term	Planning Division, Recreation and Community Services	Low
61	**Farmers Markets.** Establish a City-based farmers market program focused on increasing healthy food access within disadvantaged communities.	Medium	Intermediate Term	Planning Division, Recreation and Community Services	Medium
62	**Local Health Partnerships.** Partner with local health initiatives, including local hospitals, to provide culturally relevant educational programming on healthy living.	Medium	Intermediate Term	Planning Division, Recreation and Community Services	Low
63	**Childcare Facilities Ordinance.** Develop an ordinance to include childcare facilities as a potential provision to qualify affordable housing developments for density bonuses per Division 15 of the Municipal Code.	Medium	Short Term	Planning Division, Building & Safety	Low

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
64	**Urban Forestry Program.** Develop an Urban Forestry program that inventories existing canopy cover and establishes programmatic strategies for tree preservation, maintenance, and future tree planting.	High	Long Term	Public Works	Medium
65	**Mental Health Resources.** Collaborate with local non-profit organizations to develop City-sponsored workshops focused on community mental health and self-care.	Low	Intermediate Term	Recreation and Community services	Low
Environmental Justice – Exposure to Pollution					
66	**Zoning Code Update.** Update the Zoning Code to insulate residential uses from the impacts of industrial and roadway pollution by limiting the expansion potential of existing pollution sources and restricting the placement of new polluting sources near sensitive receptors.	High	Short Term	Building & Safety, Planning Division	Medium
67	**Illegal Dumping.** Develop educational materials and establish incentives to discourage illegal dumping in parks, outdoor areas, and vacant parcels throughout the city.	Medium	Intermediate Term	Planning Division, Community Preservation	Low
68	**Community Cleanup.** Develop a City-wide community cleanup program, mobilizing residents to participate in a monthly volunteer trash pickup event.	Medium	Short Term	Recreation and Community Services	Low
69	**Smoke-Free Spaces.** Require multiunit buildings within the city to be designated smoke-free spaces.	Medium	Short Term	Building & Safety, Planning Division	Low
70	**Land Use Requirements.** Require new sensitive land uses to include measures such as setbacks, landscaping, ventilation systems, and other effective measures to minimize potential impacts from air pollution.	High	Short Term	Building & Safety, Planning Division	Medium
Environmental Justice – Safe and Sanitary Homes					
71	**Home Maintenance.** Develop a home maintenance resource mailer that identifies tools, funding opportunities, and tips for vulnerable residents (low-income, seniors, and disabled residents) to maintain the health and safety of their properties.	High	Short Term	Building & Safety, Planning Division	Low
72	**Home Maintenance Funding.** Establish a grant and loan program for low-income residents to subsidize housing repairs necessary for maintaining safe and sanitary housing.	High	Long Term	Building & Safety, Planning Division	Medium
73	**Fair Housing Campaign.** Develop a multi-language informational campaign, in partnership with regional fair housing organizations, focused on disseminating resources related to tenant's rights and safe living conditions.	High	Intermediate Term	Building & Safety, Planning Division	Low

Program Number	Implementation Measure or Program	Priority	Time Frame (Short, Intermediate, Long)	Responsibility	Funding Needs (Low, Medium, High)
74	**Multi-family Inspection Program.** Develop a proactive multi-family inspection program to identify substandard rental units that do not meet current building standards and require property owners to rehabilitate identified issue areas. Rental Inspections shall occur every five years.	High	Long Term	Building & Safety, Planning Division	High

N. GLOSSARY

Acre feet per year	The volume of water necessary to cover one acre to a depth of one foot. Equal to 43,560 cubic feet, 325,851 gallons or 1,233 cubic meters
Buffer Zone	"An area established between potentially conflicting land uses, which, depending on the impact, may utilize landscaping or structural barriers such as setbacks or roads"
City	"City with a capital "C" generally refers to the City government or administration. City with a lower case "c" may mean any city or may refer to the geographical area"
Commercial	A land use designation that allows for a wide range of land use types, including retail, entertainment, and professional offices, often serving neighborhoods with services and retail goods of interest to residents
Conservation	The management of natural resources to prevent waste, destruction, or neglect
Crime Prevention Through Environmental Design	A multi-disciplinary approach to deterring criminal behavior through environmental design
Dedication	The turning over by an owner or developer of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites or other public uses are often required by a city or county as conditions for approval of a development. (See "in-lieu fee")
Density	The expected amount of development or people per area, often expressed as units or people per acre. (See also "Density, residential" and "Floor Area Ratio")
Development	On land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility
Development Review	The comprehensive evaluation of a development and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting, and signs, in accordance with a set of adopted criteria and standards. Development Review usually refers to a system established in the Municipal Code, whereby projects are reviewed against certain standards and criteria by a specially established design review board or other body such as the Planning Commission
Diesel PM	Solid particulate matter (particles) sourced from the exhaust of diesel engines (buses, trucks, trains, ships, and other equipment). Diesel PM contains an array of chemical that may be harmful to human health.
Disabled	Persons determined to have a physical impairment or mental disorder, which is expected to be of long, continued, or indefinite duration and is of such a nature that the person's ability to live independently could be improved by more suitable housing conditions
Emergency Operations Center	The centralized location of emergency response and recovery support operations during incidents
Fault	A fracture in the earth's crust that forms a boundary between rock masses that have shifted.

General Plan	A compendium of City goals, policies, and actions regarding long-term development, in the form of maps and accompanying text. The General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the City Council. In California, the General Plan has seven mandatory elements (Circulation, Conservation, Housing, Land Use, Noise, Open Space and Public Safety) and may include any number of optional elements the City deems important
Greenhouse Gas	Atmospheric gases that contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface
Groundwater	Water that exists beneath the earth's surface, typically found between saturated soils and rock, and is used to supply wells and springs
Impact Fee	A fee charged to a developer by the City according to the proposed development project, typically by number of units, square footage, or acreage. The fee is often used to offset costs incurred by the municipality for services and infrastructure such as schools, roads, police and fire services, and park
Infill Development	Development that occurs on underutilized or vacant land within areas that are already largely developed
Intergovernmental Panel on Climate Change	The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change
Land Use	The occupation or utilization of an area of land for any human activity or any purpose land use plan. The relevant portions of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies and, where necessary, a listing of implementing actions
Mitigation	Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters
National Incident Management System	A guide to all levels of government, nongovernmental organizations, and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from incidents
Ozone (Ground-level)	An air pollutant that is formed by photochemical reaction (sunlight) of pollutants from vehicle emission, industry emission, and volatile organic compounds.
Parcel	A lot, or contiguous group of lots, in single ownership or under single control, usually considered a unit for purposes of development
Representative Concentration Pathways	Prescribed pathways for greenhouse gas and aerosol concentrations, together with land use change, that are consistent with a set of broad climate outcomes used by the climate modelling community
Representative Concentration Pathways	Prescribed pathways for greenhouse gas and aerosol concentrations, together with land use change, that are consistent with a set of broad climate outcomes used by the climate modelling community
Resilience	Resilient communities ensure that all residents are prepared and ready to withstand social or environmental challenges
Standardized Emergency Management Systems	The cornerstone of California's emergency response system and the fundamental structure for the response phase of emergency management. The system unifies all elements of California's emergency management community into a single integrated system and standardizes key elements
Transit Oriented Development	The creation of compact, walkable, pedestrian-oriented, mixed-use communities centered around high-quality train systems
Transparency	In the context of governance, transparency is a principle that allows those affected by decisions to be informed not only about the outcomes of a decision, but also the mechanisms and processes in which decisions are made
Wildland Urban Interface	The zone where natural areas and development meet
Zoning	The division of a city by ordinance or other legislative regulation into districts or zones, which specify allowable uses for real property and size restrictions for buildings constructed in these areas; a program that implements the land use policies of the General Plan

City of San Fernando

Appendix A Safety Element Existing Conditions Report

Public Draft | May 2022

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1. INTRODUCTION

This document is the Existing Conditions Report for the City of San Fernando Safety Element Update. Each section provides an overview of a relevant hazard or public safety consideration as follows:

- Geologic and Seismic Hazards
- Flooding and Dam Failure Inundation Hazards
- Wildland Fire Hazards
- Peak Load Water Demand
- Hazardous Materials Hazards
- Climate Change Hazards & Climate Vulnerability Assessment

A. Critical Facilities

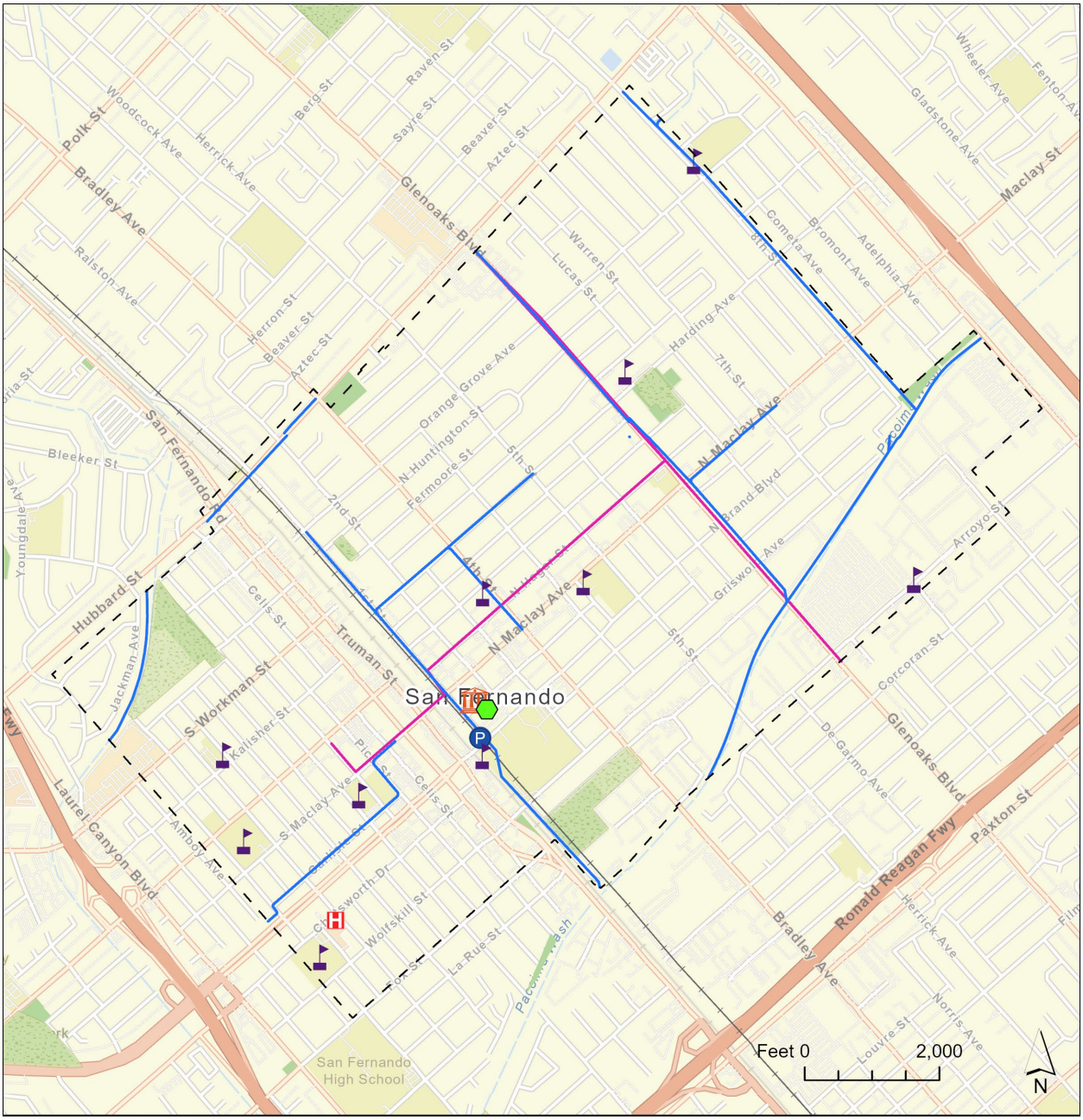
The Federal Emergency Management Agency separates critical buildings and facilities into the five categories shown below based on their loss potential.[1]. All of the following elements are considered critical facilities:

1. Essential Facilities are essential to the health and welfare of the whole population and are especially important following hazard events. Essential facilities include hospitals and other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.
2. Transportation Systems include airways – airports, heliports; highways – bridges, tunnels, roadbeds, overpasses, transfer centers; railways – trackage, tunnels, bridges, rail yards, depots; and waterways – canals, locks, seaports, ferries, harbors, drydocks, piers.
3. Lifeline Utility Systems such as potable water, wastewater, oil, natural gas, electric power, and communication systems.
4. High Potential Loss Facilities are facilities that would have a high loss associated with them, such as nuclear power plants, dams, and military installations.
5. Hazardous Material Facilities include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

Figure 1 shows the Critical Facilities in the city of San Fernando. The critical facilities identified in the city include City Hall, the city yard, one police station, one hospital, storm drains, gas lines, and numerous schools and parks. These facilities are located throughout the city, with City Hall, the city yard, police station and San Fernando Middle School all clustered near Downtown San Fernando in the southern portion of the city.

[1] City of San Fernando Multi-Hazard Mitigation Plan. 2021. https://ci.san-fernando.ca.us/wp-content/uploads/2021/09/San-Fernando-MHMP-8.23.2021-.pdf Accessed 9/30/2021

Figure 1 Critical Facilities



City Boundary

Critical Infrastructure

- Hospital
- Police Station
- School
- City Hall
- City Yard
- Storm Drain
- Gas Line
- Railroads

Parks

- Local Park
- National Park or Forest
- Regional Park

2. GEOLOGIC AND SEISMIC HAZARDS

Earthquakes are characterized by sudden shaking or movement caused by a release of strain accumulated along the edge of the Earth's tectonic plates. Earthquakes typically occur without warning and can cause damages ranging from minimal with few or no injuries, to catastrophic with extensive casualties. Earthquake severity is measured by the Modified Mercalli Intensity (MMI) scale. The MMI measures earthquake intensity at a given site based on observed impacts such as damage done to structures, changes in the earth surface, and personal experiences. The scale uses roman numerals of increasing value to indicate increasing intensity. The lower numbers represent effects of an earthquake on people, and the higher numbers generally represent increasing levels of observed structural damage. Peak ground acceleration (PGA) is used to measure earthquake intensity by quantifying how hard the earth shakes in a given location.

The city of San Fernando is in a seismically active region at risk of hazards from earthquakes, including fault rupture, ground shaking, landslides, and liquefaction. The degree of damage to structures and property from geologic hazards depend on numerous mitigating factors such as distance from the fault of origin, soil, and ground properties, and building materials and structural design. Los Angeles County has active faults capable of causing large earthquakes that could affect the entire region including the city.

A. History of Earthquakes in San Fernando

The two most significant earthquakes to have recently affected the city are the 1971 San Fernando and the 1994 Northridge earthquakes. The epicenter of the 1971 San Fernando earthquake was located six miles northeast of Sylmar with a magnitude of 6.6. The earthquake caused 65 fatalities and millions of dollars in property loss in the city, including damage to several bridges, sections of freeway, and a hospital[2]. The Northridge earthquake occurred on January 17, 1994. This event was measured at a magnitude of 6.7 and caused 51 fatalities along with extensive damage to streets, the sewer system, the water system, public buildings, and privately-owned residential and commercial structures in the city. In the first six months following this disaster, the City spent approximately $1.8 million and over 9,100 person hours on earthquake-related activities.[3] Table 1 and Table 2 list the historical earthquakes of significance for Los Angeles County and the city of San Fernando, along with a summary of the impacts.

[2] City of San Fernando Multi-Hazard Mitigation Plan. 2021. https://ci.san-fernando.ca.us/wp-content/uploads/2021/09/San-Fernando-MHMP-8.23.2021-.pdf Accessed 9/30/2021

[3] Ibid

Table 1 History of Earthquakes Impacting the City of San Fernando

Year	Location	Impact on City of San Fernando
1933	Long Beach	No damage to the city
1971	Sylmar	65 fatalities, millions of dollars of property loss
1987	Whittier	No damage to the city
1994	Northridge	Damage specific to the City is unknown, however, county-wide there 51 fatalities and 9,000 injuries, thousands of structures damaged, $1.8 million in economic loss
Source: City of San Fernando Multi-Hazard Mitigation Plan, 2021		

Table 2 Los Angeles County Significant Earthquakes Over the Last 50 Years

Earthquake	Magnitude	Date	Impact within Los Angeles County
La Habra	(M 5.1)	March 28, 2014	A few injuries and $10 million dollars in damages
Chino Hills	(M 5.5)	July 29, 2008	8 injuries and limited damages
Northridge	(M 6.7)	January 17, 1994	57 deaths, 8,700 injuries and up to $40 billion dollars in damages
Sierra Madre	(M 5.6)	June 28, 199	1 death, 100+ injuries and up to $40 million dollars in damages
Upland	(M 5.7)	February 28, 1990	30 injuries and $12.7 million dollars in damages
Whitter	(M 5.9)	October 1, 1987	8 deaths, 200 injuries and $358 million in damages
San Fernando	(M 6.6)	February 9, 1971	58 – 65 deaths, 200 – 2,000 injuries and up to $553 million in damages
Source: County of Los Angeles All-Hazards Mitigation Plan, 2019			

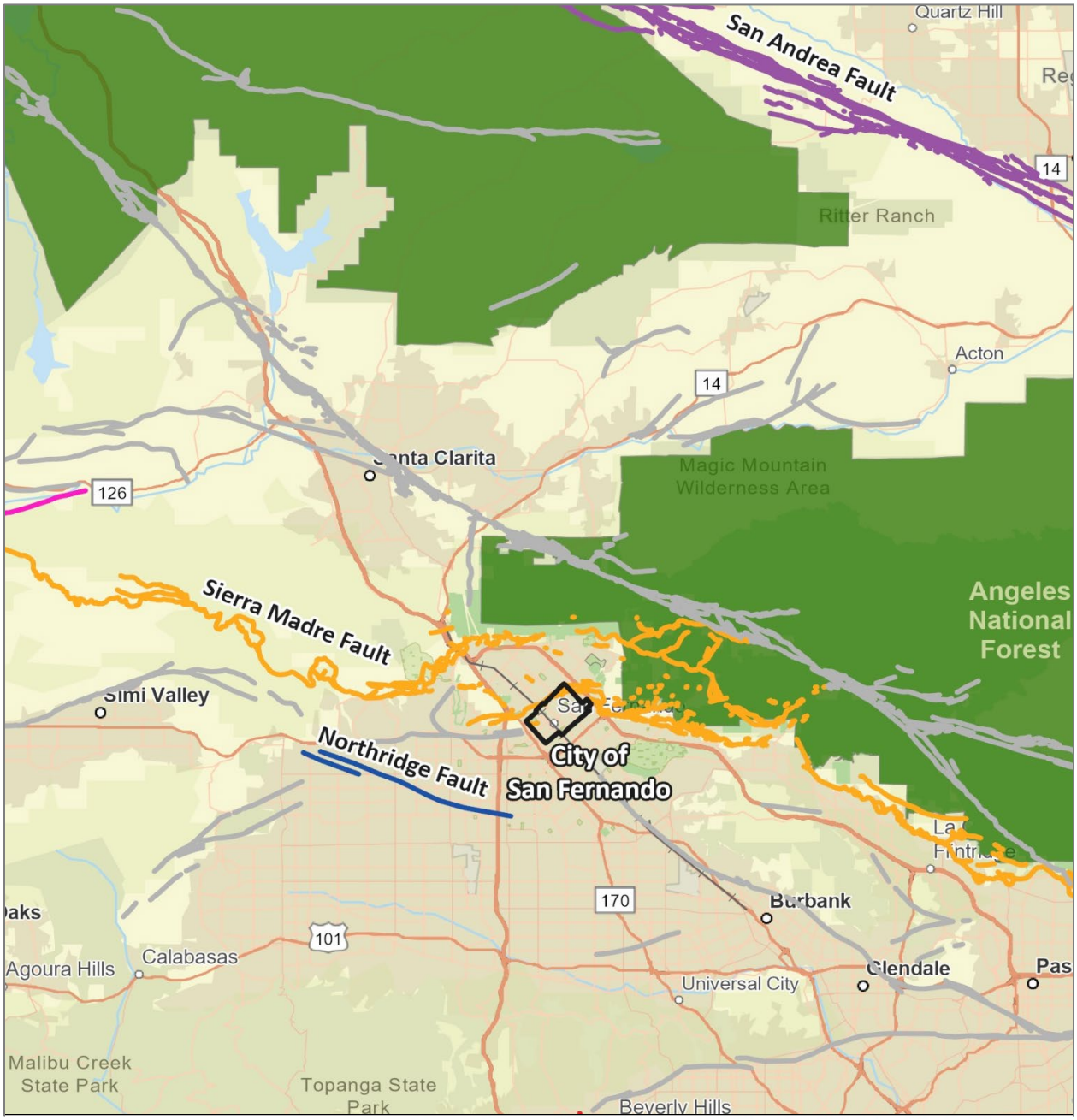
B. Faults Affecting San Fernando

The City of San Fernando Multi-Hazard Mitigation Plan notes several faults that have the potential to impact the city. The San Andreas fault is considered a “master fault” because it is the boundary between the Pacific and North American geologic plates. There are several more active faults in eastern San Fernando and northern San Gabriel valleys, including the Northridge, Newport-Inglewood, and Sierra Madre faults. The presence of so many active faults increase the probability of a major earthquake impacting the city.

The segment of the San Andreas fault closest to the city of San Fernando is the Mojave segment, which is approximately 83 miles long. This segment extends from approximately Three Points (29 miles east of State Route 210 near Sulphur Springs) southward to just northwest of Cajon Creek, at the southern limit of the 1857 rupture. Using a slip rate of 30±8 millimeters per year (mm/yr) and a characteristic displacement of 4.5±1.5 meters (m), scientists have derived a recurrence interval of 150 years for this segment. The Mojave segment is estimated to be capable of producing a magnitude 7.1 earthquake. Scientists have calculated that this segment has a 26 percent probability of rupturing sometime between 1994 and 2024.[4] Figure 2 shows the fault lines mapped in San Fernando and the surrounding region.

[4] City of San Fernando Multi-Hazard Mitigation Plan. 2021. https://ci.san-fernando.ca.us/wp-content/uploads/2021/09/San-Fernando-MHMP-8.23.2021-.pdf Accessed 9/30/2021

Figure 2 Faults in the City and Surrounding Area



C. Landslides and Liquefaction Hazards

Landslides can occur as a result of ground shaking of an earthquake. The most common earthquake-induced landslides include shallow, disrupted landslides such as rock falls, rockslides, and soil slides. Liquefaction occurs when seismic waves pass through water-saturated granular soil, causing some of the empty spaces between granules to collapse, resulting in a loss of ground strength and a near-liquid state. Liquefaction causes horizontal movements commonly 10 to 15 feet, but up to 100 feet, soil flows, and loss of bearing strength all of which could cause structures to settle or tip. Liquefaction can cause severe damage to property. Within the city there is one liquefaction hazard zone that extends along its western boundary beginning just southwest of 5th Street and extending to the southwest corner of the city. Much of the area within the hazard zone is comprised of single family residential and multifamily residential with the remainder made up of the western edge of the Corridors Specific Plan area, and the commercial development in the southwest of the city. There are no landslide hazard zones within the city. However, there is landslide hazard risk along the slopes of the San Gabriel mountains east of the city. Figure 3 shows the liquefaction and landslide hazard zones in San Fernando and proximal lands.

Figure 3 Geologic and Seismic Hazards

3. FLOODING AND DAM FAILURE INUNDATION HAZARD

A. Flood Hazard

A floodplain is a land area around a river, stream, lake, estuary, or other water body that is subject to flooding. The 100-year flood event is a flood that has a one percent chance of occurring in any given year. Contrary to popular belief, it is not a flood that occurs once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse that would be covered by water in a 100-year flood event. Two types of flooding primarily affect the Los Angeles county region: slow-rise or flash flooding. Slow-rise floods may be preceded by a warning period of hours or days. Evacuation and sandbagging for slow-rise floods have often effectively lessened flood related damage. Conversely, flash floods are most difficult to prepare for, due to extremely limited, if any, advance warning, and preparation time.

According to the County of Los Angeles All-Hazards Mitigation Plan (2019), the federal government has declared 13 flooding emergencies affecting Los Angeles County. See Table 3 for the dates and descriptions of the federally declared floods.

Table 3 Federally Declared Floods in Los Angeles County

Date	Description
February 5, 1954	California Flood and Erosion (Disaster Declaration # [DR]-15)
December 23, 1955	California Flooding (DR-47)
April 4, 1958	California Heavy Rainstorms, Flood (DR-82)
March 6, 1962	California Floods (DR-122)
October 24, 1962	California Severe Storms, Flooding (DR-138)
February 25, 1963	California Severe Storms, Heavy Rains, Flooding (DR-145)
August 15, 1969	California Flooding (DR-270)
February 15, 1978	California Winter Storms Flooding (DR-547)
February 7 and 21, 1980	Southern California Winter Storms (DR-615)
December 21, 1988	Coastal Storms (DR-812)
February 12 and 19, 1992	California Winter Storms (DR-935)
January 7, 1993-February 19, 1993	California Winter Storms (DR-979)
January 18, 2017-January 23, 2017	California Severe Winter Storms, Flooding, and Mudslides (DR-4305)
Source: County of Los Angeles All Hazards Mitigation Plan, 2019	

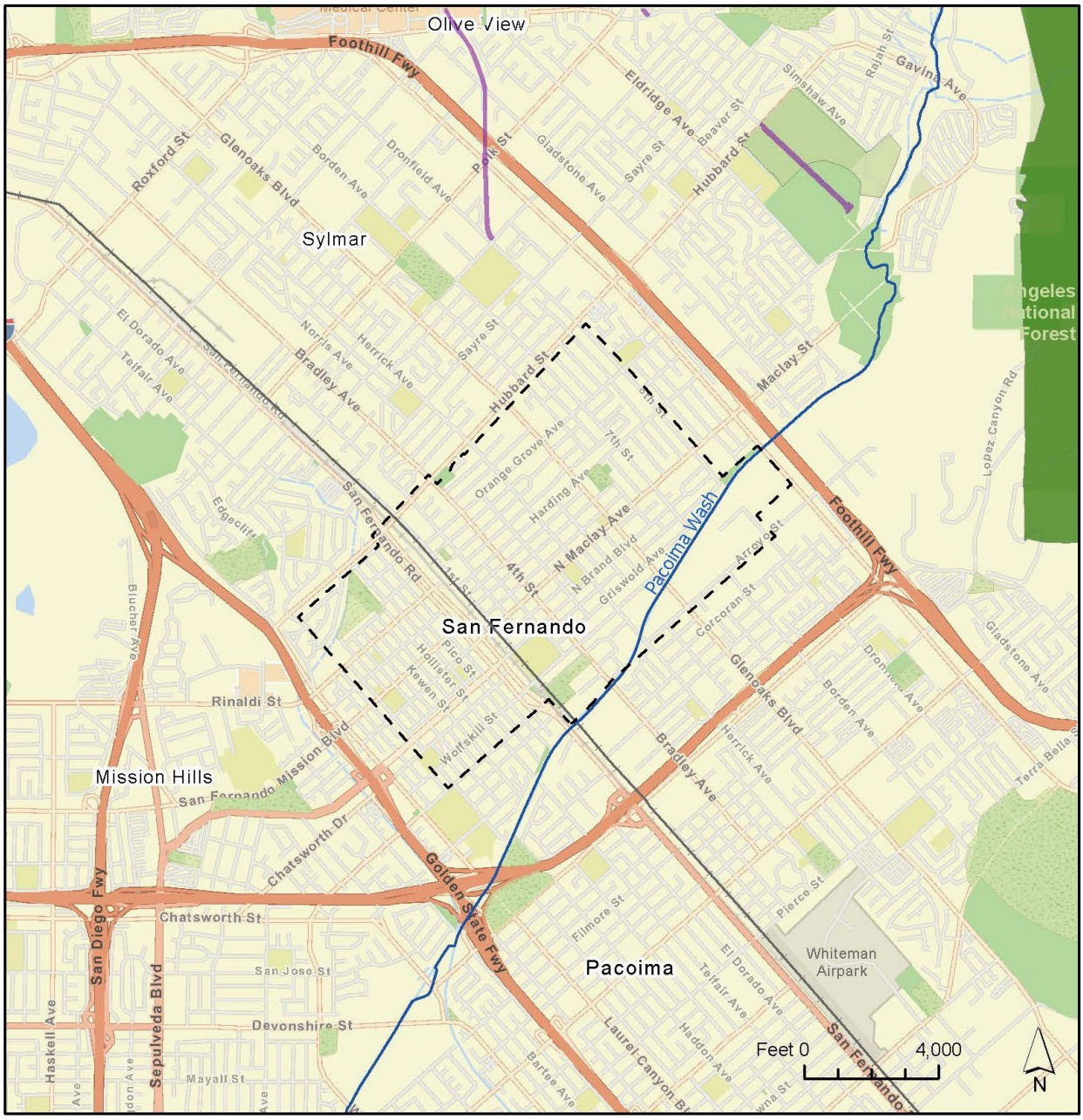
As shown in Figure 4, the city is not situated within a 100-year floodplain. The last flooding event was in the 1930s and occurred prior to the completion of the Los Angeles River flood-control system. Following channelization, there is no record of occurrences of flooding in the city. The entirety of the city is located within an area of minimal flood risk. In 2017 there was a storm-related fatality believed to have been precipitated by the force of storm waters moving through the Pacoima Wash, and that caused the individual to be swept away as they attempted to cross the Pacoima Wash.

B. Dam Failure Inundation Zone

According to the City of San Fernando 2021 Hazard Mitigation Plan, the only part of the city susceptible to possible flooding is the commercial/industrial strip that is adjacent to the Pacoima Wash if the Pacoima Dam suffers a complete failure. The strip is approximately one block wide on either side of the Wash (See Figure 5). The Los Angeles County Flood Control engineers believe that temporary flooding up to six feet could occur in the Pacoima Wash and adjacent area if the Pacoima Dam, located northeast of the city, was filled to capacity and suffered a complete failure. The Lopez Dam is on the Pacoima Wash about 2.2 miles northeast of San Fernando and is owned and operated by the U.S. Army Corps of Engineers (USACE). The Lopez Dam serves to reduce flood damage associated with the Pacoima Dam,[5]. Failure of these dams could inadvertently result in the release of large amounts of water that would reach the city and result in inundation. However, the dam is normally maintained at one-quarter of its capacity and no longer allowed to reach full capacity. Additionally, average rainfall is low, and the Dam utilizes a monitoring system that provides early warning of a structural failure, thus making the probability of this type of flood event minimal. Figure 5 below show the Dam Failure Inundation Areas for the city.

[5] Lopez Dam Basin. Master Plan and Environmental Assessment. Prepared by U.S. Army Corps of Engineers, Los Angeles District. June 2005. Available at: https://usace.contentdm.oclc.org/digital/collection/p16021coll7/id/2811.

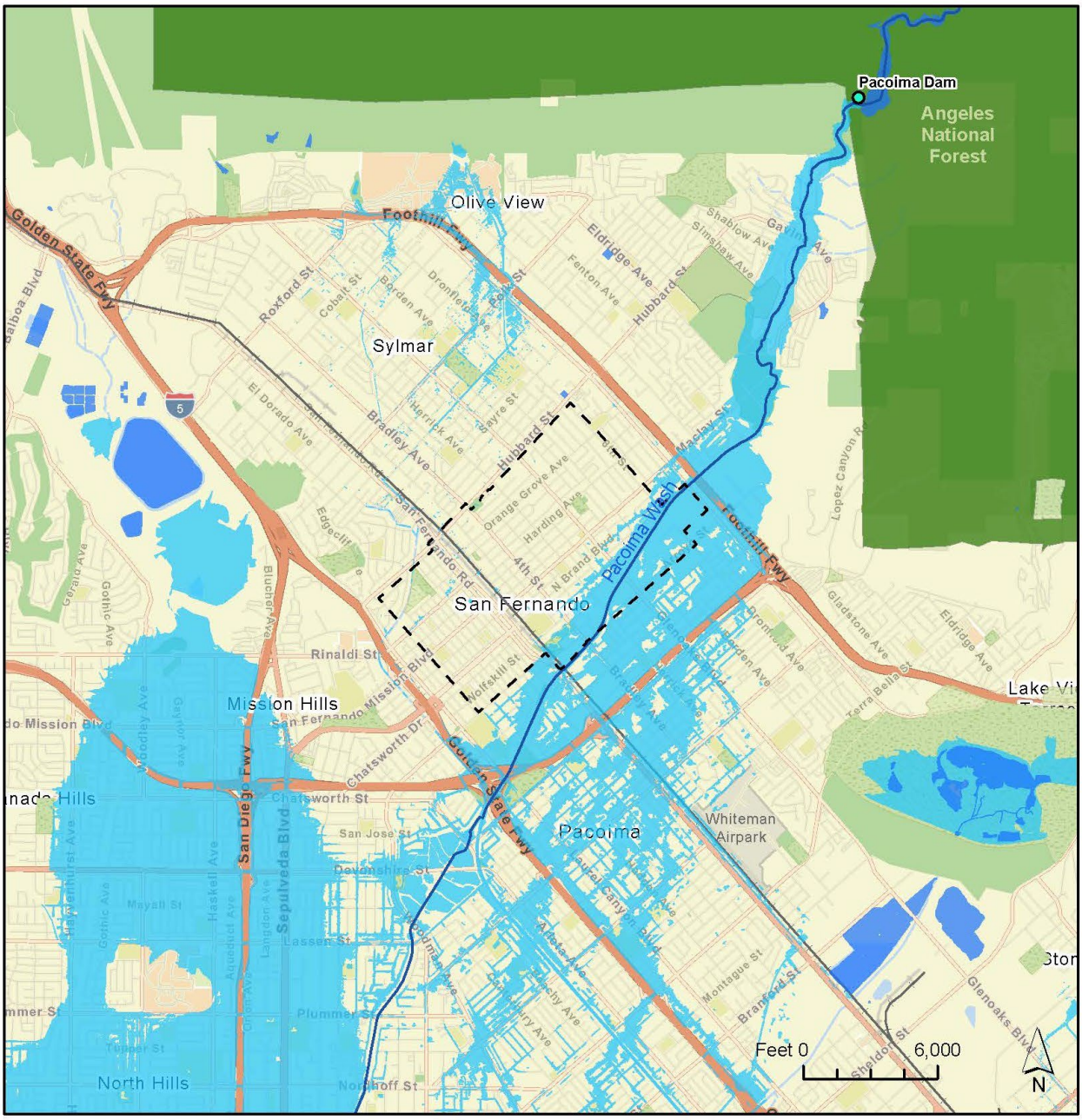
Figure 4 Flood Hazard Zones



City Boundary
1% Annual Chance Flood Risk
Pacoima Wash
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Figure 5 Dam Failure Inundation Areas



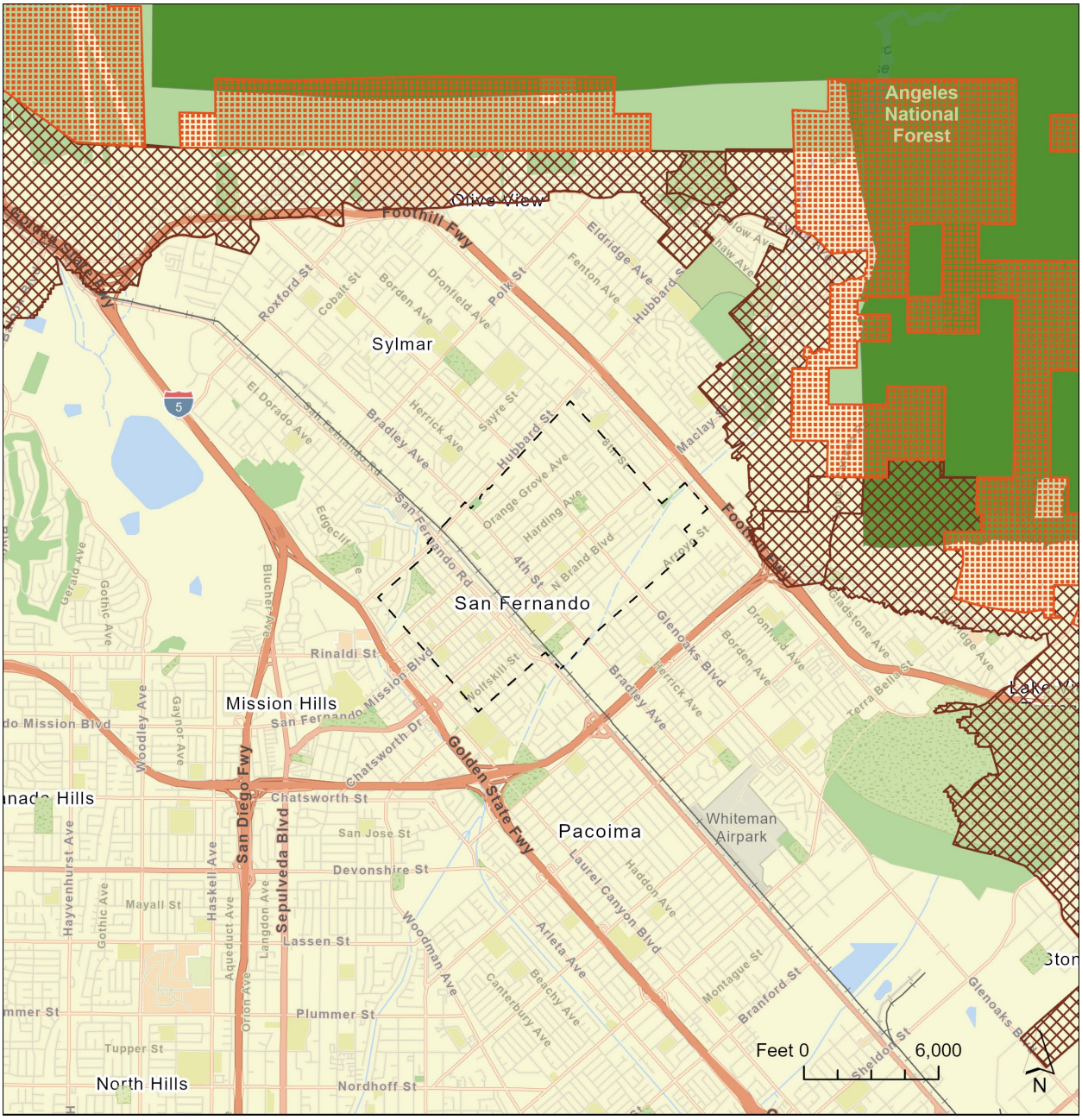
4. WILDLAND FIRE HAZARDS

California law requires CAL FIRE to assess and identify the fire hazard severity across the state. CAL FIRE identified Fire Hazard Severity Zones are based on factors that influence the likelihood and behavior of fire. Such factors include fire history, existing and potential fuel, predicted flame height, slope of the land and fire weather. There are three levels of hazard: moderate, high, and very high. Urban and wildland areas are treated differently in the model, but it does recognize the influence of burning embers traveling into urban areas, which is a major cause of the spread of fire. CAL FIRE assigns responsibility for each zone to either the State or local jurisdictions. There are no CAL FIRE hazard severity zones located within the city, as shown in Figure 6.

Regionally, San Fernando is near other zones of high or very high wildfire severity, located to the northwest, north, and east. While the city is not in an area of high fire hazard severity, the city's proximity to the San Gabriel Mountains and nearby VHFHZs does pose a threat of wildfire spreading into the city. Windstorms and the periodic occurrence of the Santa Ana winds increases the risk of wildland fires in the wildland urban interface (WUI) spreading into the city when strong winds and wildland fires co-occur. Strong winds can increase the speed and reach of flames and carry embers to adjacent areas. During the planning process for the City of San Fernando 2021 Hazard Mitigation Plan, the Los Angeles Fire Department (LAFD) recommended that "Wildfire" be eliminated as a hazard and the planning team agreed and removed wildfire from the plan.

The city's street system is primarily arranged on a grid pattern, and there are no identified neighborhoods with only one point of ingress and egress.

Figure 6 Fire Hazard Severity Zones



City Boundary

State Responsibility Area

Very High Fire Hazard Severity Zone

Local Responsibility Area

Very High Fire Hazard Severity Zone

Railroads

Parks

Local Park

National Park or Forest

Regional Park

5. PEAK LOAD WATER DEMAND

The existing water supplies available to the city include local groundwater extracted from the Sylmar Groundwater Basin. The City also has access to imported water from the Metropolitan Water District (MWD) as an emergency connection, and from the City of Los Angeles to be accessed only in extreme emergencies. The Sylmar Groundwater basin has been adjudicated, and the City of San Fernando has a current allotted draw from the basin of 3,570 acre-feet per year.[6] Additionally, the City has the right to receive stored water credit in the Sylmar Basin. In addition to these sources, the City of San Fernando 2021 Urban Water Management Plan (UWMP) discusses alternate water sources such as recycled stormwater, greywater (water used from bathroom sinks, showers, tubs, and washing machines), and desalinated seawater, as well as plans for reactivating one of the City's inactive ground wells to increase groundwater production capabilities.[7]

The 2020 UWMP includes a Water Shortage Contingency Plan. The City is allotted 3,570-acre feet per year (AFY), which is below the natural safe yield of the Sylmar Basin estimated at approximately 7,140 AFY54. By 2030, the city is expected to have 629 AFY of available imported water from Metropolitan Water District and 3,570 AFY available from the Sylmar Basin. The 2030 supply (4,199 AFY) is expected to exceed 2030 demand (2,960 AFY) by 1,239 AFY. MWD's 2020 UWMP finds that MWD can meet full service demands of its member agencies with existing supplies from 2025 through 2045 during normal years, single dry year, and multiple dry years. Prolonged dry periods may impact the City's imported water supply capacities significantly due to reductions in MWD's storage reservoirs resulting from increases in regional demand.

The City of San Fernando Water Production Division is responsible for the operation and maintenance of the City's four water wells, three booster pump stations, four reservoirs, and two pressure regulation stations. The current storage capacity for potable water across the City's four reservoirs is approximately 8.9 million gallons (MG). Peak day demand for the city as of 2008 was approximately 7.3 million gallons, or 82 percent of total storage capacity[8]. The City of San Fernando did not purchase any water during the window of peak demand from May 1st through September 30th during 2017, 2018, or 2019,[9] indicating that the City was able to supply enough water to meet peak demand during those years. The City of San Fernando is a member agency of the MWD; however, the last year the City purchased imported water from MWD was 2014 in the amount of 110 AF, and the City purchased no water at all from MWD during the period of 2015-2020.

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6 City of San Fernando Urban Water Management Plan. 2020. https://ci.san-fernando.ca.us/wp-content/uploads/2021/06/San-Fernando_2020-UWMP_Public-Draft_2021-06-02.pdf Accessed 10/5/21

7 Greywater Action. 2021. https://greywateraction.org/greywater-reuse/#:~:text=Greywater%20is%20gently%20used%20water,and%20certain%20household%20cleaning%20products. Accessed 10/8/2021

8 City of San Fernando 2013-2021 Housing Element. 2014. https://ci.san-fernando.ca.us/wp-content/uploads/2016/02/Adopted-2013-2021-Housing-Element-1.21.20141.pdf Accessed 9/30/21

9 Metropolitan Water District Urban Water Management Plan. 2020. https://www.mwdh2o.com/media/21641/2020-urban-water-management-plan-june-2021.pdf Accessed 9/30/21

6. HAZARDOUS MATERIALS HAZARDS

A wide variety of products, chemicals and purified chemical compounds, and elements considered either hazardous or toxic are used in households, commercial businesses, and industrial operations and processes. These include home and pool related chlorine products, chemical fertilizers, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials. The improper use and management of hazardous materials can pose a potential threat to the community and the environment.

Leaking underground storage tanks (LUST) and former industrial and commercial sites can expose the community and environment to hazardous materials. Gasoline storage tanks from former or current gas stations are subject to leaking over time, which can contaminate soil, groundwater, and/or surface water. Leaks require immediate action upon detection to reduce the spread of contaminants and reduce potential harm. Industrial and commercial activities sometimes utilize hazardous and toxic chemicals for operations, and spills or mishandling of these materials can result in site contamination. These sites are known as “brownfields,” and their clean-up and revitalization are regulated by the United States Environmental Protection Agency (USEPA).

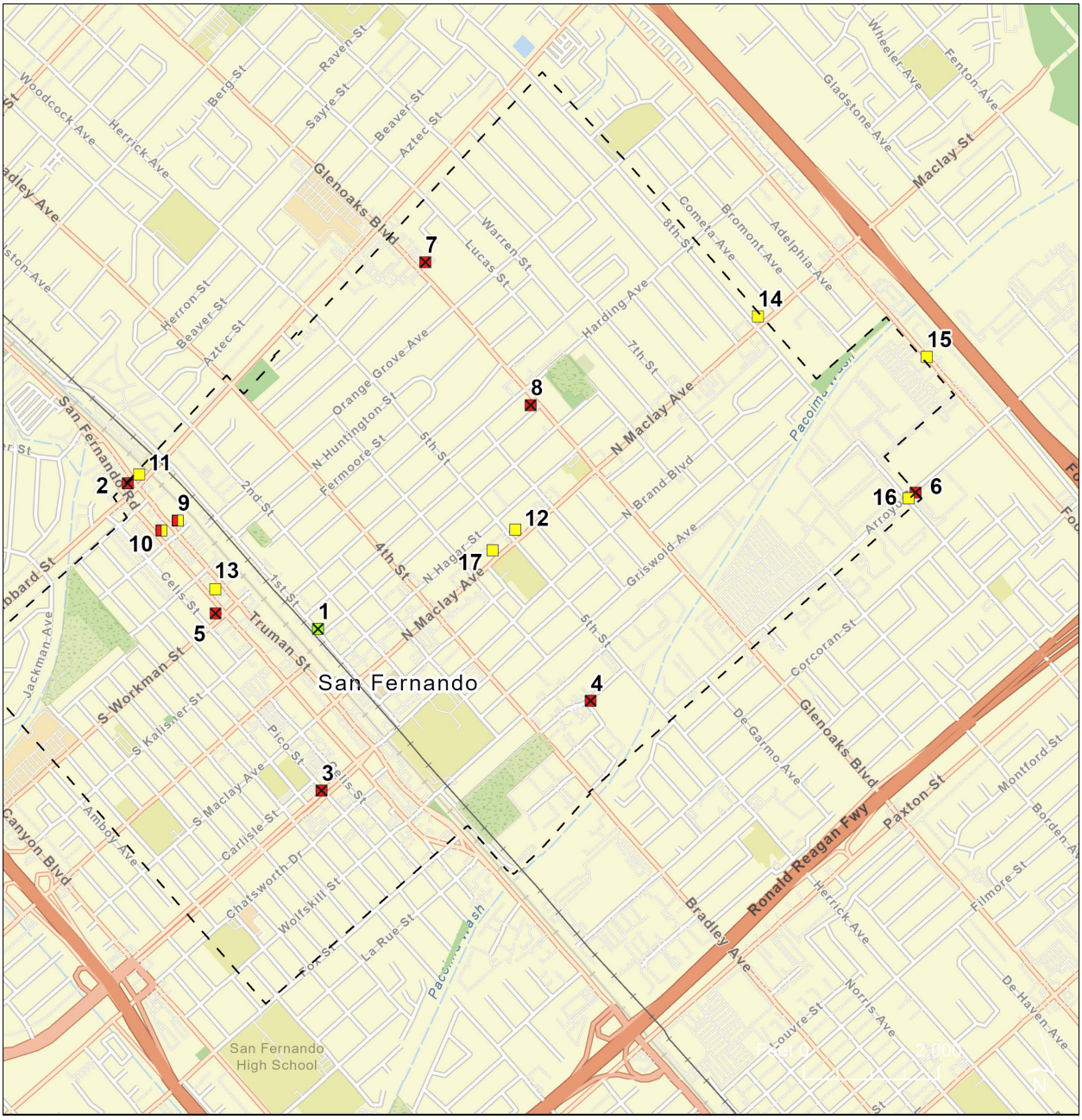
San Fernando contains hazardous material sites such as LUST sites, contaminated groundwater sites under the jurisdiction of the State Water Resources Control Board (SWRCB) Site Cleanup Program, and hazardous sites under the California Department of Toxic Substances Control (DTSC) Site Cleanup Program. There are a total of 17 sites in the city that contain hazardous materials (see Figure 7 and Table 4 below). Some sites have more than one type of site designation associated with the same physical address. There are 2 open or active cleanup sites in the city that have not been remediated or completed the remediation process. There are 9 closed sites which have been remediated. There are 10 permitted underground storage tank (UST) sites. As indicated in Table 4 below, several sites are in the dam failure inundation hazard zone and liquefaction hazard zone. As the entire city is likely to experience ground shaking during an earthquake, all sites within the city may be subject to seismic activity during such an event. While Figure 7 depicts hazardous materials sites within city borders, there are additional hazardous materials sites adjacent to the city to the southwest, southeast, northeast, and north that may be impacted during seismic events or by other hazards, which could in turn affect the city.

Because of the widespread use of hazardous materials in our communities, minor and major hazardous materials spills and incidents occur. Most of these incidents are related to transport of chemicals over roadways or through industrial accidents. Though no major transportation corridors go through the city of San Fernando, Interstate 5, State Route 118, and Interstate 210 surround the city on three sides. The City of San Fernando contracts with the LAFD to monitor facilities that generate hazardous waste. The LAFD is the Certified Unified Program Agency (CUPA) that provides regulatory oversight over hazardous materials and hazardous waste programs in both the City of Los Angeles and the City of San Fernando. The following programs are operated by the LAFD:

- Hazardous Materials Inventory and Business Plan
- Hazardous Waste Generator
- Onsite Hazardous Waste Treatment
- Underground Storage Tank
- Above-ground Storage Tank Spill Prevention Control and Countermeasure
- California Accidental Release Prevention

Every business that handles hazardous materials above established thresholds must file a Hazardous Materials Business Plan and Emergency Response Plan in the California Environmental Reporting System (CERS). State Assembly Bill 2948 (Tanner 1986) mandates that each local government has a hazardous waste management plan for dealing with hazardous waste generated within the community.

Figure 7 Hazardous Materials Sites



City Boundary
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Hazardous Materials Sites
Permitted Underground Storage Tank (UST)
Leaking Underground Storage Tank (LUST)
Cleanup Program Site
Leaking Underground Storage Tank (LUST)/Permitted Underground Storage Tank (UST)
Completed - Case Closed

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Additional data provided by California Water Boards, 2021.

Table 4 Hazardous Waste Sites in the City of San Fernando

Figure 7 Map Number	Site Id	Site Name	Site Type	Site Status	Site Address	Contaminants Present	Hazard Zone
1	SL184531436	City National Bank Property	Cleanup Program Site	Completed - Case Closed	1321 1st Street	Volatile Organic Compounds	Seismic
2	T0603702259	Desert Petroleum #59 (Former)	LUST Cleanup Site	Completed - Case Closed	1753 San Fernando Road	Gasoline	Liquefaction, Seismic
3	T0603702247	GTE	LUST Cleanup Site	Completed - Case Closed	401 Brand Boulevard S	Gasoline	Seismic
4	T0603703955	GTE San Fernando Plant Yard	LUST Cleanup Site	Completed - Case Closed	510 Park Avenue	Gasoline	Dam Failure Inundation, Seismic
5	T0603702254	John Angel Property	LUST Cleanup Site	Completed - Case Closed	1404 San Fernando Road	Gasoline	Seismic
6	T0603713084	Pepsi Bottling Group	LUST Cleanup Site	Completed - Case Closed	1260 Arroyo Street	Diesel	Dam Failure Inundation, Seismic
7	T0603700025	Richard Sterman	LUST Cleanup Site	Completed - Case Closed	1955 Glenoaks Boulevard	Aviation	Seismic
8	T10000000589	Wm Waterston Trust	LUST Cleanup Site	Completed - Case Closed	1400 Glenoaks	None Specified	Seismic
9	T0603702250	Gem Fuel	LUST Cleanup Site	Open - Assessment & Interim Remedial Action	1601 Truman Street	Gasoline	Seismic
9	25541	Commercial Fueling Network	Permitted Underground Storage Tank (UST)	N/A	1601 Truman Street	N/A	Seismic
9	N/A	Truman Fuel	Permitted Underground Storage Tank (UST)	N/A	1601 W Truman Avenue	N/A	Seismic
10	T0603704772	Mission Car Wash	LUST Cleanup Site	Open - Remediation	1601 San Fernando Road N	Gasoline	Liquefaction, Seismic
10	FA0014075	Mission Carwash	Permitted Underground Storage Tank (UST)	N/A	1601 San Fernando Road	N/A	Liquefaction, Seismic
11	N/A	Arco #01904	Permitted Underground Storage Tank (UST)	N/A	1753 W Truman Street	N/A	Liquefaction, Seismic
11	T0603702251	Arco #1904	LUST Cleanup Site	Completed - Case Closed	1753 Truman Street	Gasoline	Liquefaction, Seismic

Figure 7 Map Number	Site Id	Site Name	Site Type	Site Status	Site Address	Contaminants Present	Hazard Zone
12	N/A	Arco - Maclay Inc.	Permitted Underground Storage Tank (UST)	N/A	601 N Maclay Avenue	N/A	Seismic
13	19752	Goodyear Tire Center #905946	Permitted Underground Storage Tank (UST)	N/A	1431 San Fernando Road	N/A	Seismic
14	N/A	Maclay Ave Investments LLC	Permitted Underground Storage Tank (UST)	N/A	1203 N Maclay Avenue	N/A	Seismic
15	FA0030348	Oky LLC, Dba: Slymar Shell	Permitted Underground Storage Tank (UST)	N/A	13641 W Foothill Boulevard	N/A	Dam Failure Inundation, Seismic
16	FA0015007	Pepsi-Cola Bottling Group	Permitted Underground Storage Tank (UST)	N/A	1200 Arroyo Street	N/A	Dam Failure Inundation, Seismic
17	FA0023295	Roy's Auto Repair	Permitted Underground Storage Tank (UST)	N/A	537 N Maclay Avenue	N/A	Seismic

Notes: N/A = Not Applicable

[1] Waste Discharge Requirements (WDR) Sites are sites that operate under Waste Discharger Requirements issued by the State Water Resources Control Board or a Regional Water quality Control Board. WDDRs address non-designated waste discharges that are typically applied to land.

Source: California State Water Resources Control Board. 2021. GeoTracker. Available <https://geotracker.waterboards.ca.gov/>. Accessed 9/30/2021.

7. CLIMATE CHANGE HAZARDS AND CLIMATE VULNERABILITY ASSESSMENT

A. Climate Change and Vulnerable Populations

This section describes climate change impacts associated with increases in temperatures, more severe storms, increases in extreme heat events, changes in precipitation patterns, extended drought conditions, and increasing wildfire risk.

B. General Plan Approach

Climate change adaptation and resilience strategies must be included in the City's General Plan via its Safety Element in accordance with California Government Code Section 65302(g) (as updated by SB 379). The review and update must consist of the following components:

1. A vulnerability assessment that identifies the risks climate change poses to the local jurisdiction and the geographic areas at risk from climate change.
2. Set of adaptation and resilience goals, policies, and objectives based on the information specified in the vulnerability assessment.
3. Set of feasible implementation measures designed to carry out the goals, policies, and objectives identified in the adaptation objectives.

The Intergovernmental Panel on Climate Change (IPCC) provides several greenhouse gas (GHG) emissions scenarios used to describe possible future GHG emissions and associated changes to global climate patterns. The State recommends two 'Representative Concentration Pathways (RCPs) to assess the city's potential vulnerability to climate change. RCP 4.5 represents a "medium emissions" scenario in which global emissions peak around 2040 and then decline at the end of the century. This scenario assumes global agreement and implementation of GHG reduction strategies. RCP 8.5 represents a "high emissions" scenario in which emissions continue to rise throughout the 21st century.

The State provides the Cal-Adapt tool to local jurisdictions for climate adaptation and resilience planning. Cal-Adapt is a web-based platform that provides climate change projections and climate impact research that are downscaled to the local level for different RCP scenarios. The projections are based on the extensive body of climate research described in California's Fourth Climate Change Assessment. The Safety Element includes climate change projections for the RCP 4.5 and RCP 8.5 scenarios taken from Cal-Adapt for temperature, precipitation, and wildfire relative to the health and safety of San Fernando residents. These climate change projections provide an understanding of possible future climate change impacts and help prioritize policies to increase community resilience to climate change.

C. Temperature

Observations over the past century indicate that temperature has increased across the Southern California region. Based on historical temperature records (1896-2015) from the California South Coast NOAA Climate Division, which encompasses the Los Angeles region, significant trends were identified in annual average, maximum, and minimum temperatures.[10]

Warming is expected to increase across the Los Angeles region in the coming decades. Under RCP 4.5, future model-average temperature values are projected to increase by 2.3 degrees Fahrenheit (°F) by the early-21st century, 4.2°F by the mid-21st century, and 5.2°F by the late-21st century compared to the modeled historical annual average maximum temperature of 72.5°F. Furthermore, the intensity and frequency of extreme heat days are also projected to increase over the Los Angeles region. Under RCP 4.5, the average hottest day of the year is expected to increase by 4-7°F.

Average maximum and minimum temperatures are expected to increase in the city. Compared to the 1961-1990 baseline, average maximum temperatures in San Fernando are expected to rise between 5.3°F (RCP 4.5) and 8.7°F (RCP 8.5) by the end of the century.[11] Average minimum temperatures in San Fernando are expected to rise similarly, between 4.8°F (RCP 4.5) and 8.2°F (RCP 8.5) by the end of the century.

The number of extreme heat days per year is also expected to increase. In San Fernando, an extreme heat day is when the maximum temperature exceeds 101.7°F. Historically, between 1961-1990, the region experienced 3 extreme heat days per year on average. By the end of the century, extreme heat days are expected to increase by 15 days per year under RCP 4.5 and approximately 33 days per year under RCP 8.5.

Changes in average maximum temperature extreme heat days are in Figure 8 and Figure 9, respectively. In both figures, the purple lines show high emissions scenario (RCP 8.5), the blue line shows the medium emissions scenario (RCP 4.5), the grey lines show the current trend (observed). The shaded areas indicate the range for the emissions scenario. For example, the blue shaded areas represent the range of data for the medium emissions scenario (RCP 4.5).

[10] Hall, Alex, Neil Berg, Katherine Reich (University of California, Los Angeles). 2018. Los Angeles Summary Report, California's Fourth Climate Change Assessment. Available:<https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf>. Accessed September 26, 2021.

[11] California Energy Commission. N.d. Cal-Adapt. Available: <https://cal-adapt.org/tools/local-climate-change-snapshot/>. Accessed September 26, 2021.

Figure 8 Annual Average Maximum Temperature

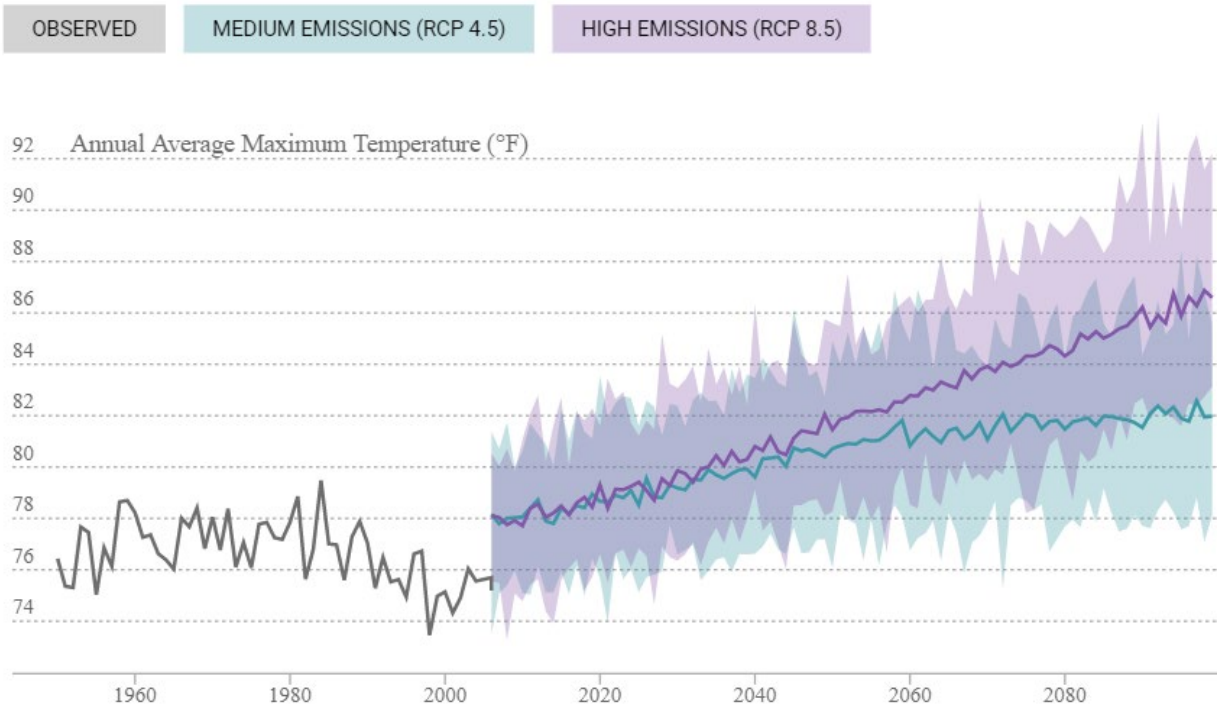
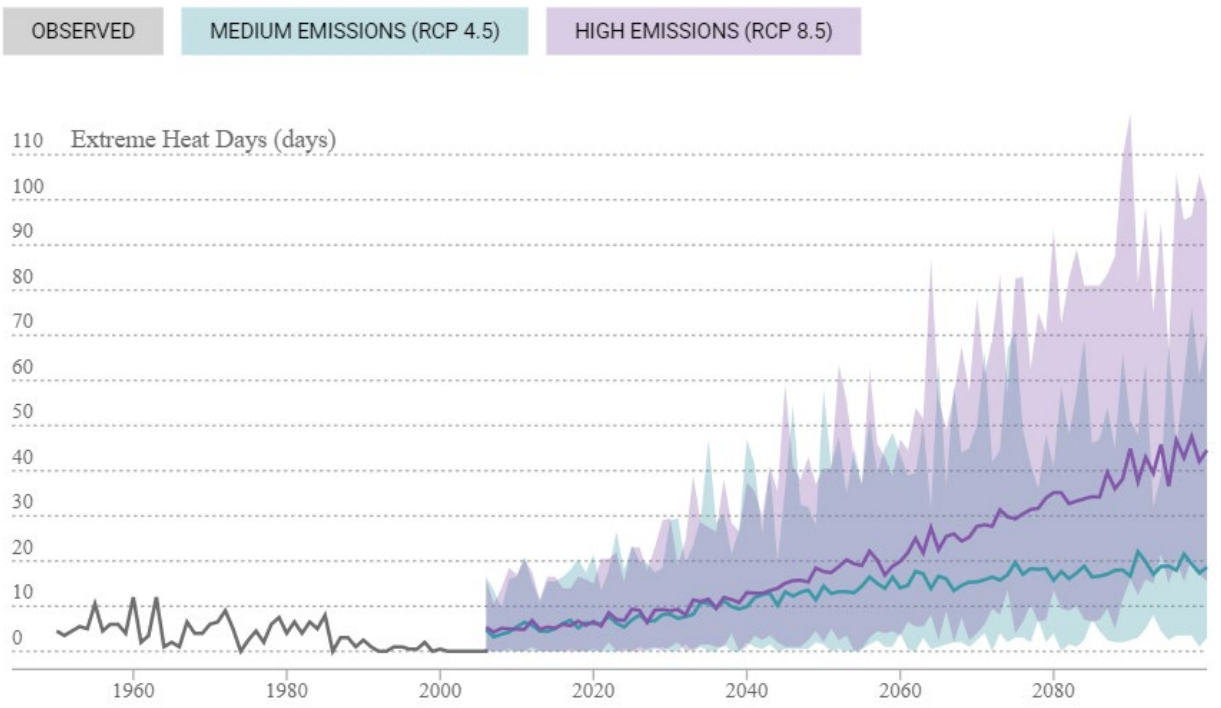


Figure 9 Extreme Heat Days



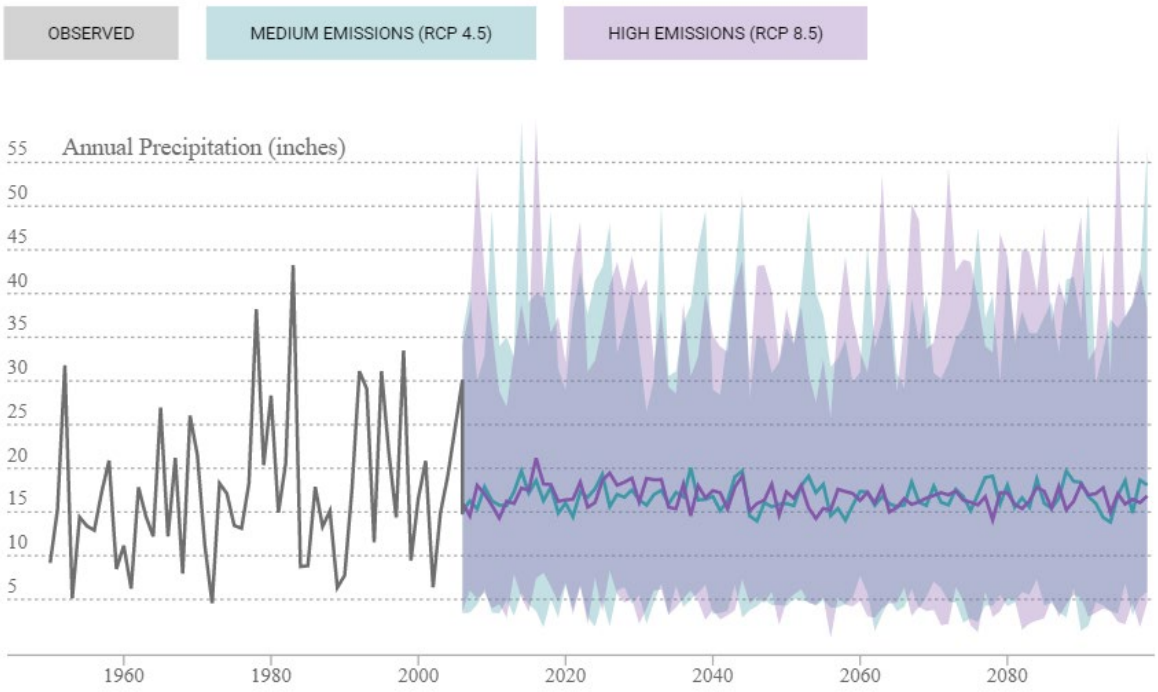
D. Precipitation

Precipitation over the Los Angeles region is highly variable from year to year. Typically, about five storms each year generate approximately 50 percent of total precipitation.[12] Model projections are inconsistent, but in general, small changes are expected relative to the region's historic variability in average annual precipitation. However, dry, and wet extremes are both expected to increase in the future thus increasing the potential for higher variability in precipitation. By the late-21st century, the wettest day of the year is expected to increase across most of the Los Angeles region, with some locations experiencing 25-30 percent increases under RCP 8.5.

In the city, the modeled historical (1961-1990) annual precipitation is a 30-year average of approximately 17.5 inches.[13] Mid-century projections predict annual precipitation to decrease about 0.6 inches (both RCP4.5 and RCP8.5). By the end of the century, annual precipitation is expected to decrease between 0.3 (RCP4.5) to 0.6 inches (RCP8.5) below the current 30-year average of 17.5 inches. While average annual precipitation is not expected to change significantly, precipitation will likely fall in more intense storms within a shorter wet season. For much of the state, research suggests that wet years will become wetter and dry years will become drier and will extend for longer stretches of time, increasing the risk of extended drought.

Changes in precipitation are shown in Figure 10. The purple line shows high emissions scenario (RCP 8.5), the blue line shows the medium emissions scenario (RCP 4.5), the grey line shows the current trend (observed). The shaded areas indicate the range for the emissions scenario. For example, the blue shaded areas represent the range of data for the medium emissions scenario (RCP 4.5).

Figure 10 Annual Precipitation



[12] Hall, Alex, Neil Berg, Katherine Reich (University of California, Los Angeles). 2018. Los Angeles Summary Report, California's Fourth Climate Change Assessment. Available:<https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf>. Accessed September 26, 2021.

[13] California Energy Commission. N.d. Cal-Adapt. Available: <https://cal-adapt.org/tools/local-climate-change-snapshot/>. Accessed September 26, 2021.

E. Wildfire

In the Southern California region wildfire risk is influenced by a multitude of compounding factors that include its dry and warm Mediterranean climate, periodic episodes of offshore Santa Ana winds, drought events, the type and spatial distribution of vegetation, varying topography, large urban-wildland interfaces, past fire suppression attempts, and human activities.[14] Regionally, approximately 80 percent of wildfire events occur during the summer and fall, with a quarter of annual wildfires occurring during Santa Ana wind events. Future projections using statistical models indicate that Southern California may experience a larger number of wildfires and burned area by the mid-21st century under RCP 8.5. Overall burned area is projected to increase over 60 percent for Santa Ana-based fires and over 75 percent for non-Santa Ana fires. Many factors affect projected future occurrence of wildfire as a result of climate change. There are significant uncertainties associated with the influence of climate change on the future occurrence of wildfire in the city.

F. Vulnerability

Communities will be affected by climate change to varying degrees depending on their sensitivity to its impacts. Social vulnerabilities can greatly inhibit the adaptive capacity of a community. On a larger scale, communities may be more vulnerable because of limited access to financial capital and resources, various institutional barriers, social network limitations, and compromised access to critical infrastructure. Adaptive capacity is largely influenced by governance, management, and institutions, thus making it imperative that adaptive capacity is addressed through effective policy implementation. On a more local level, the sensitivity of a community depends more on the specific makeup of the community (i.e., specific populations and assets).

The most likely impacts of climate change that San Fernando may experience include increases in average maximum and minimum temperatures, more severe storms, increases in extreme heat events, changes in precipitation patterns, extended drought conditions, and increasing wildfire risk.

Certain population groups may be disproportionately harmed by the impacts of climate change in San Fernando. The California Healthy Places Index tool identifies vulnerable populations by census tract. Vulnerable populations identified in San Fernando include but are not limited to:

- Unemployed,
- Young children,
- Older adults,
- Outdoor workers,
- Individuals with asthma,
- Individuals living in poverty,
- Low birth weights,
- Individuals with low educational attainment (less than a bachelor's degree), and
- Individuals that are linguistically isolated (non-English speakers).

[14] Hall, Alex, Neil Berg, Katherine Reich (University of California, Los Angeles). 2018. Los Angeles Summary Report, California's Fourth Climate Change Assessment. Available:<https://www.energy.ca.gov/sites/default/files/2019-11/Reg%20Report-%20SUM-CCCA4-2018-007%20LosAngeles_ADA.pdf>. Accessed September 26, 2021.

The city's residents and workers rely on infrastructure for mobility, water, power, and communications. These systems are vulnerable to climate change, which in turn can reduce the ability of people to adapt. Health risks may arise or be exacerbated because of damaged infrastructure, such as from the loss of access to electricity, or impacts to sanitation, safe food, water supplies, health care, communication, and transportation. To help reduce negative impacts on vulnerable populations and increase adaptive capacity, strategies and policies are identified regarding vulnerable infrastructure, ensuring a high standard of condition and performance on infrastructure systems, and overall disaster preparedness.

External factors present in the San Fernando community that also contribute to climate change vulnerability include high housing cost burden and exposure to poor air quality and drinking water contaminants as well as other environmental conditions. Because climate change impacts are closely intertwined with vulnerable populations and inequities, climate adaptation planning presents a unique opportunity to address some of the external factors that contribute to climate change vulnerability, which are also root causes of inequity. Addressing these underlying causes can help increase resilience for all residents of San Fernando.

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City of San Fernando

Appendix B Environmental Justice Element Technical Report

Public Draft | May 2022

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1. INTRODUCTION

Environmental degradation and pollution impact the health and well-being of communities across the globe. Historically, low-income and minority communities experience this impact at a higher rate than the broader population, as these communities tend to be located closer in proximity to hazardous or degraded environments. These disproportionate environmental impacts are referred to as an unequal environmental burden. Environmental justice is a concept focused on addressing the systemic causes of the unequal environmental burden placed on certain communities. Efforts to address environmental justice involves mitigating the causes of environmental burden and the associated health and economic impacts on minority communities, particularly communities of color and low-income communities.

The State of California has developed regulation focused on improving the status of disproportionate environmental burden through Senate Bill 1000 (SB 1000), "The Planning for Healthy Communities Act" of 2016 which amended Section 65302 of the Government Code. Government Code Section 65040.12 defines environmental justice as "the fair treatment and meaningful involvement of people of all races, cultures and incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." State efforts towards environmental justice are primarily aimed at improving the status of disadvantaged communities through effective planning and policy decisions.

Government Code Section 65302 requires jurisdictions to identify environmental justice communities (called "disadvantaged communities") within their planning area and incorporate an environmental justice element into their general plans, or related environmental justice goals, policies and objectives integrated into other elements of the General Plan. The term disadvantaged communities refers to "an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation." In the context of environmental justice, disadvantaged communities are those areas throughout California which most suffer from a combination of economic, health, and environmental burdens. These burdens can include air and water pollution, exposure to hazardous chemicals, lack of public resources, and high rates of asthma and heart disease.

For the purposes of environmental justice policy development, disadvantaged communities have been pre-identified by the State and made available through the CalEnviroScreen data tool. CalEnviroScreen is a science-based tool that depicts the layout of environmental impacts in California communities by census tract. The tool utilizes existing environmental, health, and socioeconomic data to rank census tracts based on 20 distinct environmental indicators. The higher the score, the more impacted a community is by pollution burdens and population vulnerabilities. Designated disadvantaged communities are those communities that scored within the highest 25 percent of census tracts across California (CalEnviroScreen percentile scores of 75 or higher).

2. SAN FERNANDO

A. Brief History and Cultural Heritage

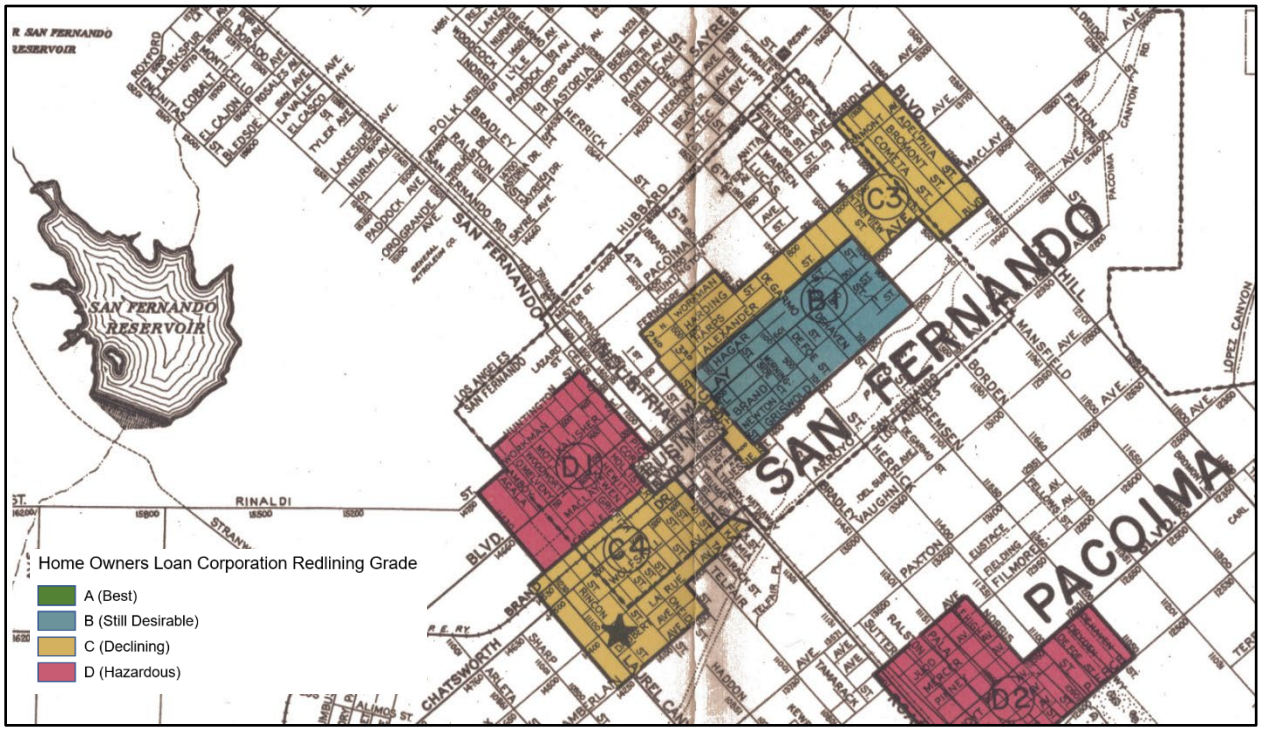
San Fernando was founded in 1874 and has a rich cultural past. In the early 1800s, while California was still Mexican territory, a mix of Spanish, Indian, and Mexican residents arrived and settled in the area. Residents traded farm crops, olives, wine, and other goods. Today with a population of 24,754 people, San Fernando is one of the San Fernando Valley's smallest incorporated cities. Over 90 percent of the population of San Fernando identifies as Hispanic or Latino. The community maintains its identity with its rich cultural past, with celebrations such as Fiesta and the preservation of architecture from its Mexican Heritage.

San Fernando has a proud history of community building and cultural heritage. However, there have been federally sponsored barriers and discriminatory practices that have impacted the community, including housing discrimination in the form of redlining. A federal agency called the Home Owners' Loan Corporation created residential security maps in the 1930s throughout American cities to support the Federal Housing Administration and its new mortgage program. These maps designated certain neighborhoods as desirable or not worth investment based on several factors. These included housing age, condition, and value, as well as proximity to services, amenities, and transportation

"Security" levels were color-coded from green (least risk), blue, yellow, and red (highest level of risk). Problematically, the key factors in determining risk were race and ethnicity. Neighborhoods with a multicultural community, recent immigrants, or families of color were severely downgraded or redlined. Areas that saw majority populations of white residents were either left unmarked or were given a high-desirability rating. These maps documented the perceived risk of lending and determined the lending practices of banks and other mortgage lenders administering the federal loans. This led to disinvestment in cities and a loss of wealth building for generations of American families. This practice of racial exclusion from homeownership allowed white Americans to accumulate wealth through government backed homeownership while minority communities were excluded and marginalized.

The Home Owners' Loan Corporation maps of Northern Los Angeles show that areas in and around San Fernando were impacted by redlining (see Figure 1). Areas colored blue were designated as desirable or worth investment. The areas that are marked in yellow and red represented areas of high-risk or undesirable for investment. This meant that residents in the yellow or red parts of this map would not qualify to receive federally backed loans.

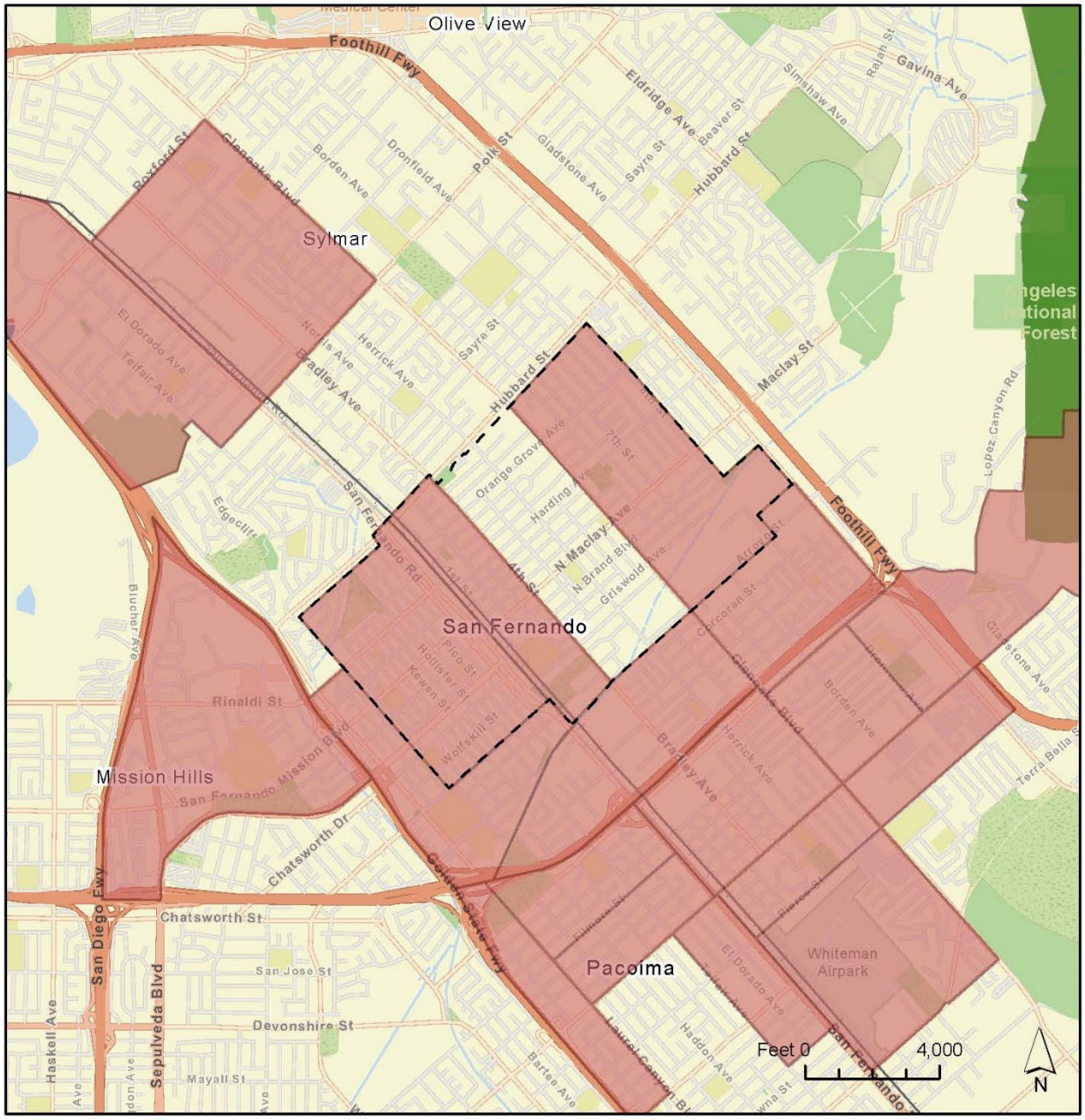
Figure 1 Home Owners Loan Corporation Map of Northern Los Angeles



B. Census Tracts with the Disadvantaged Communities Designation

The City of San Fernando geographic area is made up of four census tracts. According to the CalEnviroScreen tool, three of the four census tracts within the city are currently designated as disadvantaged communities. Figure 2 on the preceding page identifies the disadvantaged communities within San Fernando. As previously mentioned, disadvantaged communities may be disproportionately exposed to environmental pollution and degradation. When assessing environmental justice at the local context, it is pertinent that any disparities that exist within identified disadvantaged communities are highlighted and addressed.

Figure 2 Census Tract Designated Disadvantaged Communities



City Boundary
Census Tracts with Disadvantaged Communities Designation
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Imagery provided by ESRI and their licensors © 2021.
Disadvantaged Communities from OEHHA, 2021.

3. ENVIRONMENTAL JUSTICE COMMUNITY CONTEXT

The negative impact of environmental hazards and pollution on communities in California can be measured across five key focus areas. These focus areas encompass the range of environmental factors that may influence a person's health status. They are commonly referred to as the environmental determinants of health. Government Code Section 65302 requires goals, policies, and objectives in the General Plan to address these environmental determinants. The determinants include the following:

1. Pollution Exposure and Air Quality,
2. Public Facilities,
3. Safe and Sanitary Homes,
4. Physical Activity, Food Access, and Public Health, and
5. Civic and Community Engagement.

A. Pollutant Exposure and Air Quality

Exposure to polluting substance in the air, water, and soil can have a significant impact on health outcomes. Certain diseases have been directly associated with pollutant exposure including heart disease, cancer, birth defects, asthma, reproductive disorders, and neurological disorders. Pollutant exposure is an environmental determinant of health that may disproportionately impact disadvantaged communities.

When it comes to air pollution, San Fernando experiences some of the worst air quality in the state. The city is part of the highly polluted South Coast Air Basin, which encompasses a majority of Los Angeles County. Key contributors to degraded air quality within the city include the city's proximity to high traffic freeways and roadways (Interstate-5, Interstate-210, and State Highway 118). These air quality issues are expected to be exacerbated by the future impacts of climate change.

Particulate matter and ozone are two forms of air pollution that may impact the health of a community. Particulate matter is a type of air pollution that consists of a mixture of solid particles and liquid droplets found in the air. Ozone is a gaseous air pollutant that is exacerbated by cars, refineries, and other polluting industries. The city is in the 90th percentile for ozone exposure across California, which means that San Fernando experiences a higher ozone burden than 90 percent of other California cities (see Figure 3). These local ozone levels can be exacerbated by increased temperatures. With climate change expected to increase temperatures across the state, local ozone level will likely increase beyond the current measured rates in the future. In addition to Ozone, the southernmost census tract in San Fernando measured at the 80th percentile for Diesel Particulate Matter (DPM), likely due to proximity to the Interstate-5 freeway (see Figure 4). The remaining three census tracts measured below the 60th percentile for DPM. San Fernando does not have a significant concentration of particulate matter 2.5 ($PM_{2.5}$) relative to other California census tracts in California. All census tracts in the city measured within the 50th to 60th percentile for $PM_{2.5}$.

Figure 3 CalEnviroScreen Indicator Map – Ozone

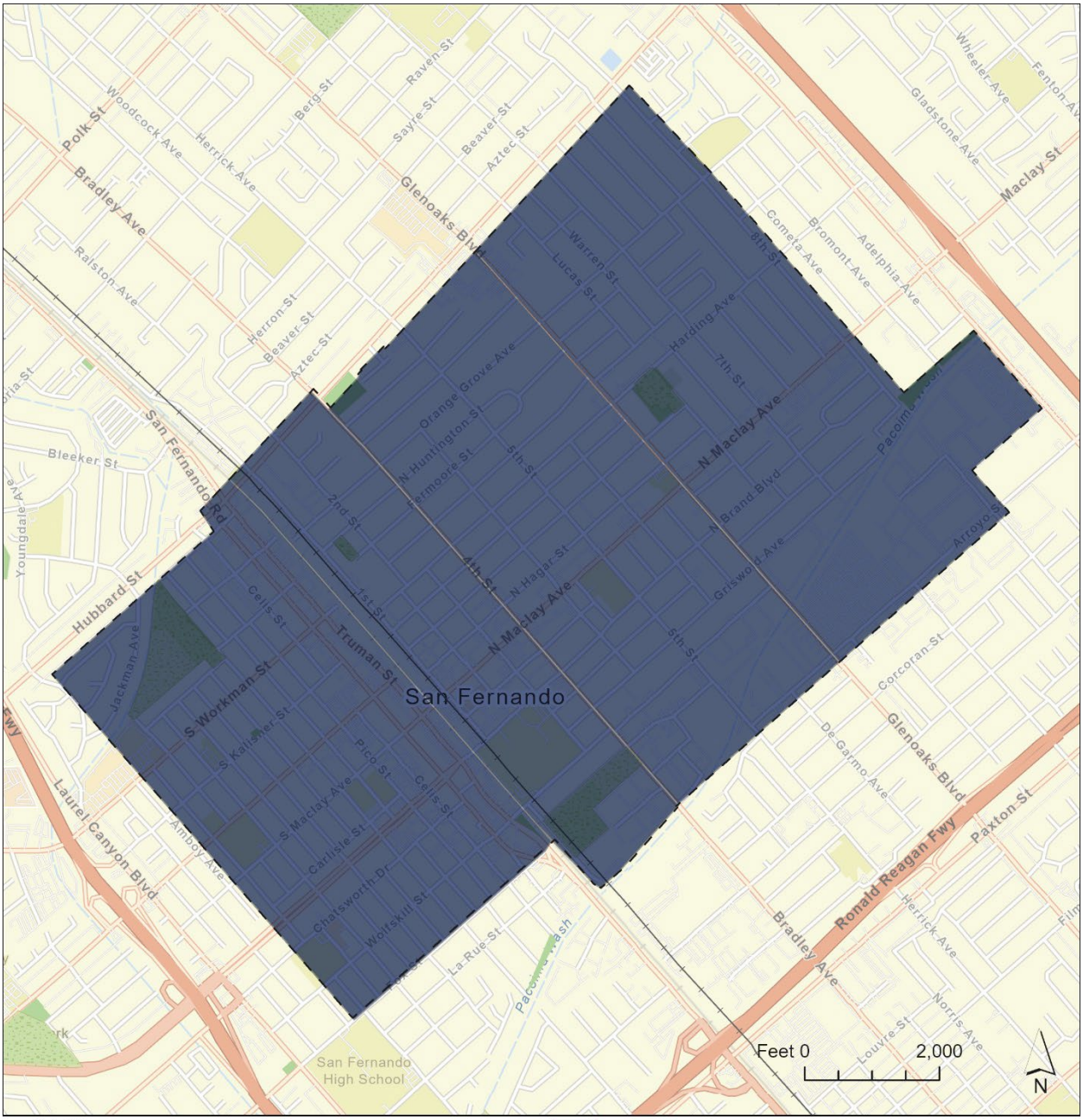
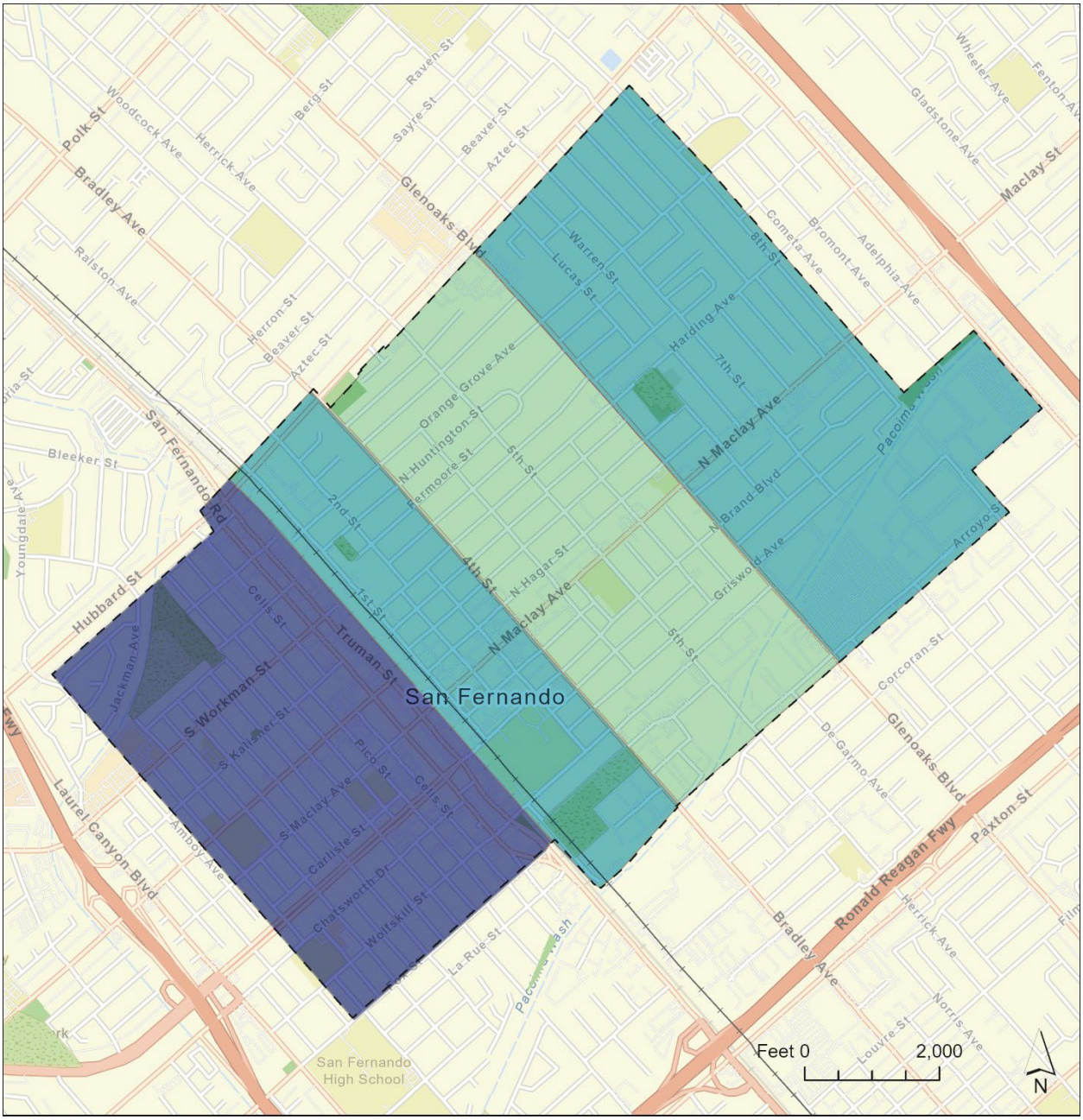


Figure 4 CalEnviroScreen Indicator Map – Diesel Particulate Matter



Water pollution is also a present source of pollution within the census tracts in San Fernando. For two of the four census tracts within the city, the drinking water pollution exposure indicator was measured to be higher than 75 percent of all census tracts in California. The drinking water exposure indicator is an index score combining information about 13 water contaminants and two types of water quality violations that are sometimes found when taking drinking water samples.

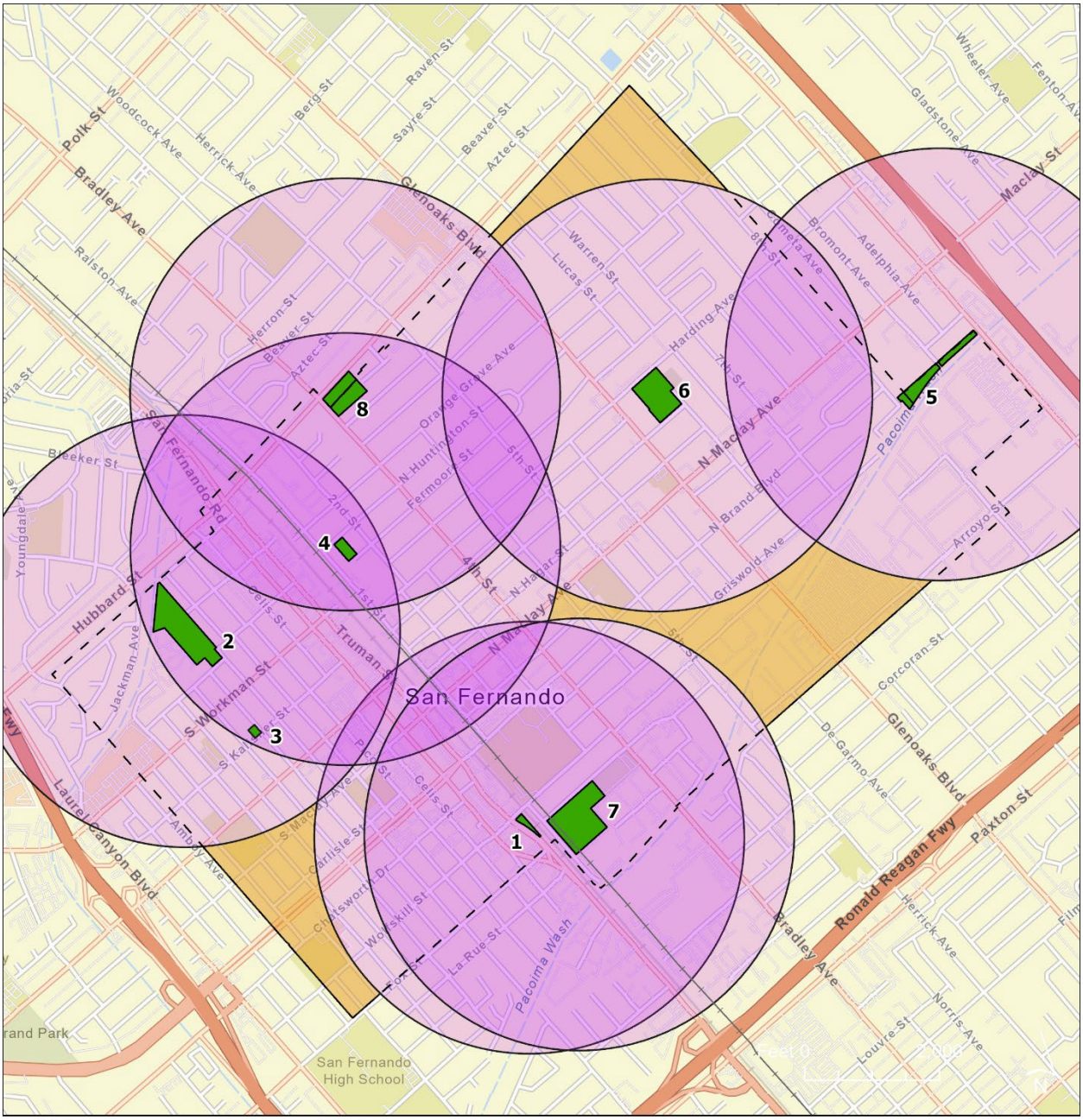
San Fernando contains hazardous material sites such as LUST sites, contaminated groundwater sites under the jurisdiction of the State Water Resources Control Board (SWRCB) Site Cleanup Program, and hazardous sites under the California Department of Toxic Substances Control (DTSC) Site Cleanup Program. There are 19 open or active cleanup sites in the city that have not been remediated or closed and 15 closed sites. A map of the hazardous material sites is provided in the Safety Element Update, Existing Conditions Report as Figure 7.

B. Public Facilities

3.B.1 Parks and Open Space

Adequate access to public facilities is a factor that may impact the general wellbeing and health of a community. Parks and open spaces are critical public facilities that enable communities to participate in physical exercise and social engagement. According to the California Department of Parks and Recreation, in San Fernando approximately 98 percent of the population live within walking distance (half-mile) of a park. The City's adopted Parks and Recreation Master Plan mapped a 0.5-mile service area radius around each park and recreation facility to identify areas of the city that may be underserviced (Figure 5). The spatial distribution of parks and recreation in the city is even across the community, with the exception of residential areas located in the northwestern and southeastern corners. The City's Parks and Recreation Master Plan also calculated that the city's current ratio of parkland per 1,000 residents is 0.75 acres. This is significantly lower than the typical park and recreation ratio of 9.5 acres/1,000 residents found nationally, according to agencies surveyed by the National Recreation and Park Association Agency. The measures outlined above indicate that the spatial distribution of parks within the city is adequate for community accessibility, however local parks may be overburdened as the number of parks relative to the population size is below the nationwide average.

Figure 5 Park and Recreation Master Plan Service Area Map



City Boundary
Railroads
1/2 Mile Service Radius
Underserviced Area

City Parks
1. Cesar E. Chavez Memorial
2. Las Palmas Park
3. Kalisher Park
4. Layne Park
5. Pacoima Wash Natural Park
6. Pioneer Park
7. Recreation Park
8. Rudy Ortega Sr. Park

Imagery provided by ESRI and their licensors © 2021.
Additional data provided by City of San Fernando Park and Recreation Master Plan, 2017.

3.B.2 Roads, Bicycle, Transit, and Pedestrian Facilities

Safe roads, bicycle, transit, and pedestrian facilities are also critical in promoting the health of a community and serve to prevent injury or fatalities associated with collisions. The design and maintenance of streets, sidewalks, and intersections can help to reduce the severity of collisions that could occur. According to the Healthy Places Index Tool, in San Fernando, one out of four census tracts has a higher average rate of severe and fatal injuries than 74 percent of other California census tracts. The San Fernando Safe and Active Streets Plan (2017) evaluates the conditions and locations of various collisions throughout the city. According to most recent data available at the time the plan was prepared, 41 pedestrian-vehicle collisions and 29 bicycle-vehicle collisions occurred from 2009 to 2013.

3.B.3 Tree Canopy

Tree canopy is a natural public amenity that can serve to promote walkability, improve heat protection, and mitigate pollution within an area. The San Fernando City Council recently adopted a 'Strategic Goal' to plant 2,000 trees between 2022 and 2027. This goal is supported through multiple efforts, including the Calles Verdes tree planting program in partnership with TreePeople and the California State Coastal Conservancy. Currently, San Fernando neighborhoods have less than 17 percent tree cover, which is less than half the average of higher-income communities in the Los Angeles region. The Calles Verdes initiative aims to grow the city tree inventory by more than 10 percent. Improving the tree canopy within the city would allow for increased physical activity better overall health, and less type 2 diabetes, high blood pressure, asthma[1] and reduced pollution burden across the city.

3.B.4 Broadband Internet

Broadband internet is a public facility that improves economic outcomes for both individuals and communities by allowing for expanded information and educational access. Individuals without access to the internet may be limited by the inability to access critical information that is published in online platforms. According to the U.S. Census, 2015-2019 American Community Survey, approximately 21 percent of households in San Fernando do not have access to a broadband internet superscription. This is slightly higher percentage of households than in the City of Los Angeles which had approximately 17 percent of households without broadband internet superscription. Approximately 13 percent of San Fernando households lack a computer in the home, while 8 percent of Los Angeles households lacked a computer. In response to gaps in broadband internet access, the California Broadband Council has developed a "Broadband for All" plan in 2020 which focuses on achieving high-performance broadband at home, schools, libraries, and businesses in order to provide access to all Californians.

Public Wi-Fi hotspots are internet access points which allow public users to connect to broadband internet using a digital device outside of the home. According to the County of Los Angeles, there are six Wi-Fi hotspot access points within San Fernando. These access points include public facilities that offer internet accessibility and commercial facilities that offer public hotspots. Sufficient availability of Wi-Fi hotspots within a community enables residents without personal home broadband to access the internet at key locations outside of the home. Improving internet accessibility for residents of San Fernando may contribute to increased educational attainment and improved economic outcomes.

[1] https://www.fs.fed.us/pnw/pubs/journals/pnw_2016_ulmer001.pdf

C. Safe and Sanitary Homes

Access to safe and sanitary homes is critical to the general health of a community. Poor quality housing, resulting from structural aging, overcrowding, or landlord neglect, may expose community members to contaminants and health hazards that can impact life expectancy. Communities with a high housing burden are more likely to be impacted by the effects of unsafe homes. This is a result of multiple factors associated with financial burden, including inability to afford necessary upgrades, increased likelihood of overcrowding, and lack of tenant agency associated with income. The housing burden in San Fernando is relatively high, with over 60 percent of renters spending more than 30 percent of their income on housing. Additionally, San Fernando has a higher rate of overcrowding and severe overcrowding than the general Southern California Association Governments region, with 24 percent of rental units occupied by more than one person per room and 11 percent of rental units occupied by more than 1.5 persons per room. The extent of the overcrowding and housing burden within San Fernando may indicate an issue regarding the safety and sanitation of homes within the city. Promoting safe and sanitary home environments within San Fernando can significantly improve the wellbeing and health outcomes of community members.

D. Physical Activity, Food Access, and Public Health

Communities with higher pollution exposure and a lack of access to resources (public facilities, safe and sanitary homes, tree canopy) may have poorer health outcomes as a result of these issues. Improving the environmental context of these communities can serve to bolster health outcomes and longevity. Asthma and low birth weight are both negative health outcomes associated with pollution and access. Asthma is also associated with lack of neighborhood tree cover. Within San Fernando, the asthma rate across all census tracts is within the 80th to 90th percentile. This means that the San Fernando community has a higher rate of asthma than over 80 percent of all census tracts in California. In addition, low birth weight is also significantly high across most of the census tracts in the city, with three out of four census tracts ranking in the 77 percentile or higher for low birthweight. Addressing pollution concerns in San Fernando can improve the measured disparity in health outcomes in the city relative to state levels.

Having access to a nearby supermarket can encourage a healthier diet and eating behaviors, lower the costs of obtaining food, reduce chronic diseases, and lower the risk of food insecurity. Hundreds of studies have documented that people who live close to a supermarket have healthier diets and better health outcomes.[2] Supermarkets provide fresh produce and other healthy food options for residents that may contribute to a person's nutritional wellbeing. Within San Fernando, a significant number (73 percent) of people reside less than half mile from a grocery store. This is a higher accessibility percentage than 94 percent of other California cities. Therefore, access to supermarkets does not appear to be a pertinent issue for San Fernando residents.

Although there is sufficient access to supermarkets within San Fernando, the access to fast food restaurants within the city is also notable. Prevalence and access of fast food within an area has been linked to poorer health outcomes associated with diabetes, sugar spikes, and weight gain. There are 15 fast food restaurants from the U.S. top 10 fast food chain list within the City of San Fernando. These top 10 fast food chains are those fast-food retailers with the most stores in the United States, including chains such as McDonalds, KFC, and Wendy's. This indicates that there were over 0.62 fast food restaurants in the city per 1,000 people. This measure is lower than the County average of 0.77 fast food restaurants per 1,000 residents (2014).

[2] https://healthyplacesindex.org/policy-actions/supermarket-access/

E. Civic and Community Engagement

The demographic context within a geographic area can contribute to reduced levels of civic and community engagement. Areas with lower educational attainment, high poverty rates, and prevalent language barriers may have disproportionately less civic engagement than their counterparts. Reduced opportunities for community engagement associated with these factors can lead to a reduced community agency and lack of community prioritization within public programs. Within San Fernando, barriers to civic engagement include low rates of educational attainment, high poverty rates, and language barriers.

To measure poverty levels, CalEnviroScreen utilizes an indicator that represents the percent of the population with incomes less than two times the federal poverty level. For two of the four census tracts in the city, the poverty indicator was within the 80th to 90th percentile (Figure 6). This means that the percent of people living below twice the poverty level in these census tracts is higher than 80 to 90 percent of all census tracts in California. Similarly, the CalEnviroScreen indicator for educational attainment was in the 80th to 90th percentile across all census tracts (Figure 7), while the indicator for linguistic isolation was above the 80th percentile for three out of the four census tracts (Figure 8). These two indicators suggest that the City of San Fernando has low educational attainment and high linguistic isolation relative to the state of California. Addressing these key community characteristics within the City's engagement programs is critical to ensuring that barriers to civic engagement are minimized.

Figure 6 CalEnviroScreen Indicator Map – Poverty

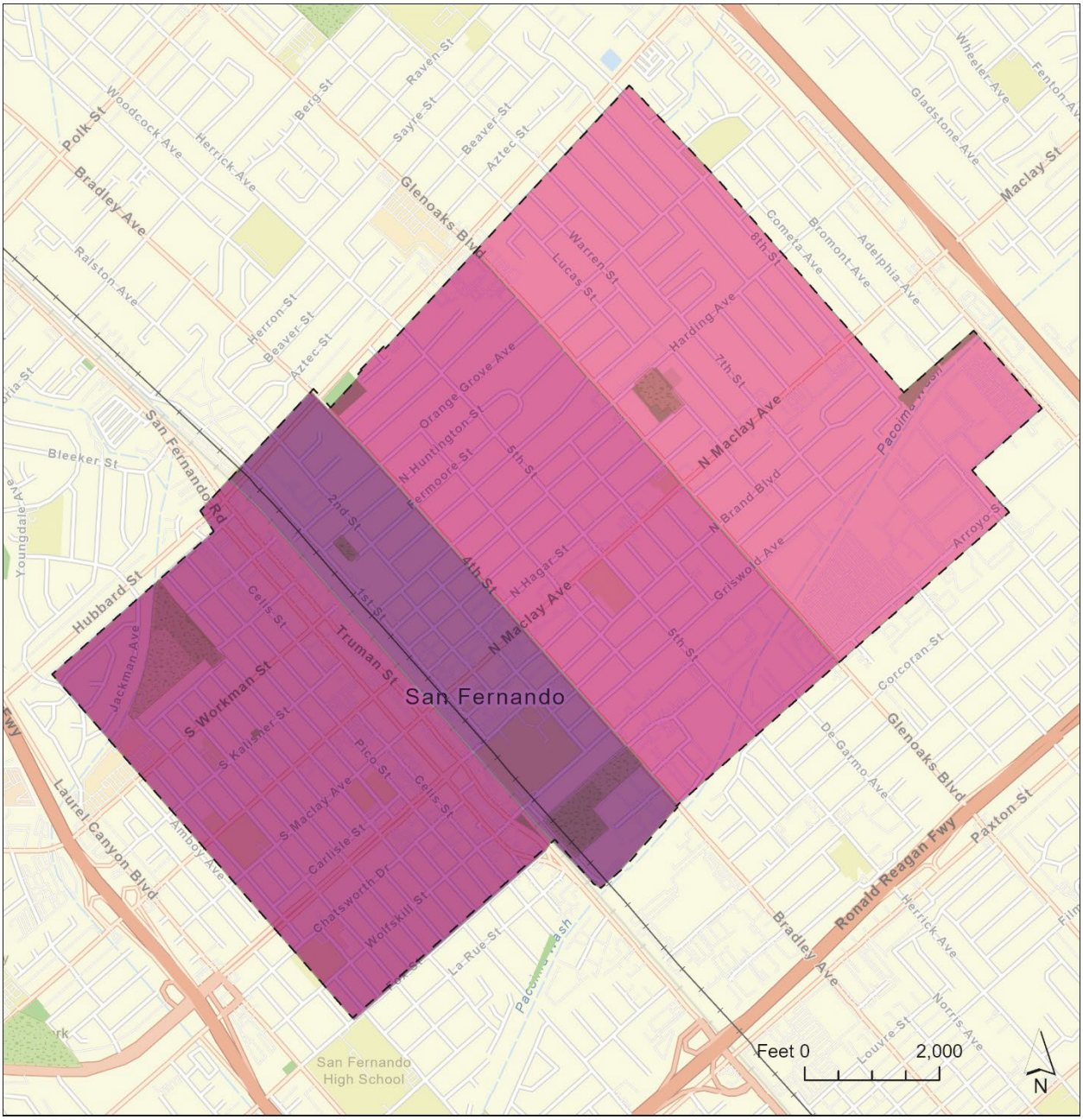
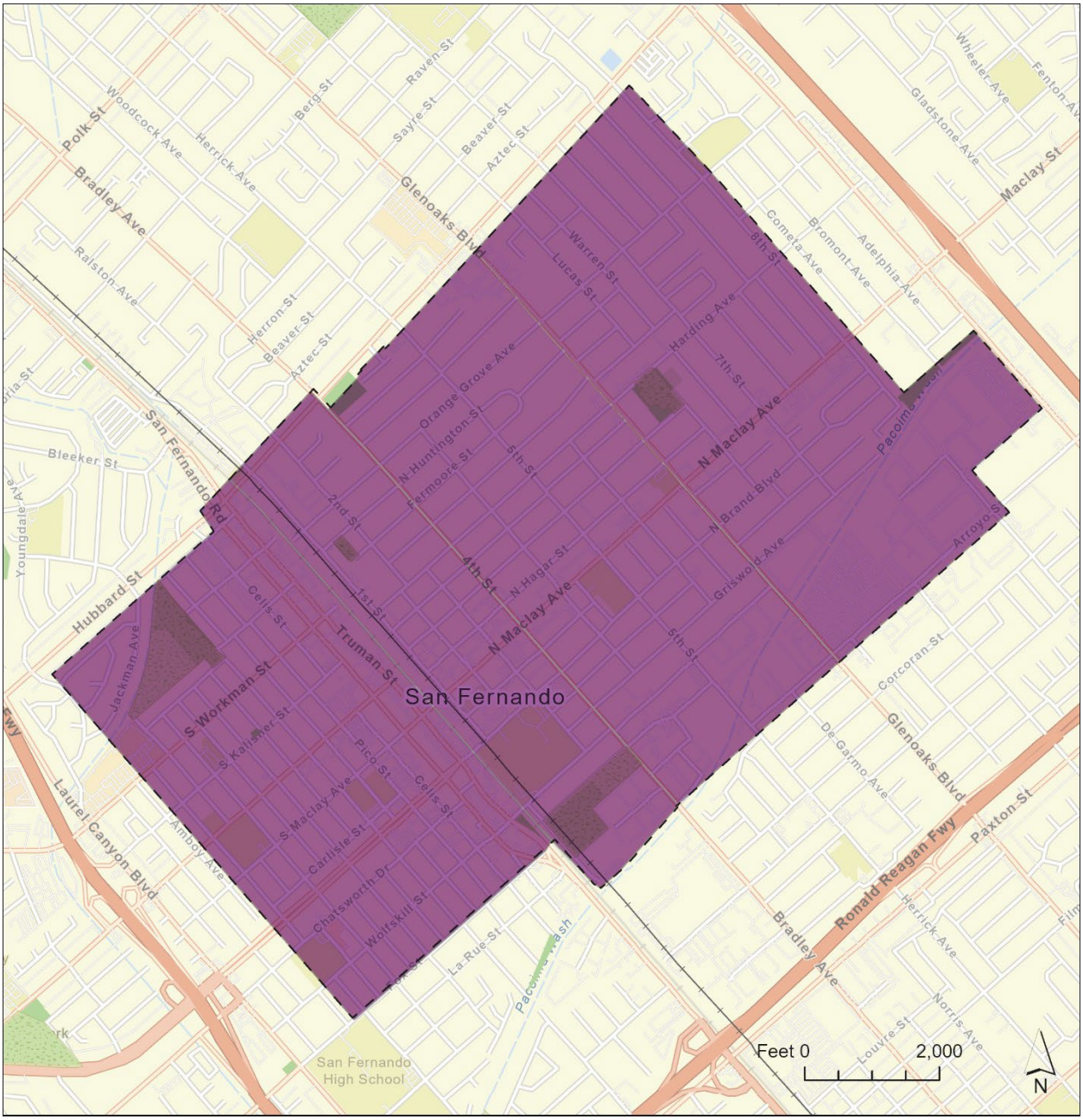


Figure 7 CalEnviroScreen Indicator Map – Education



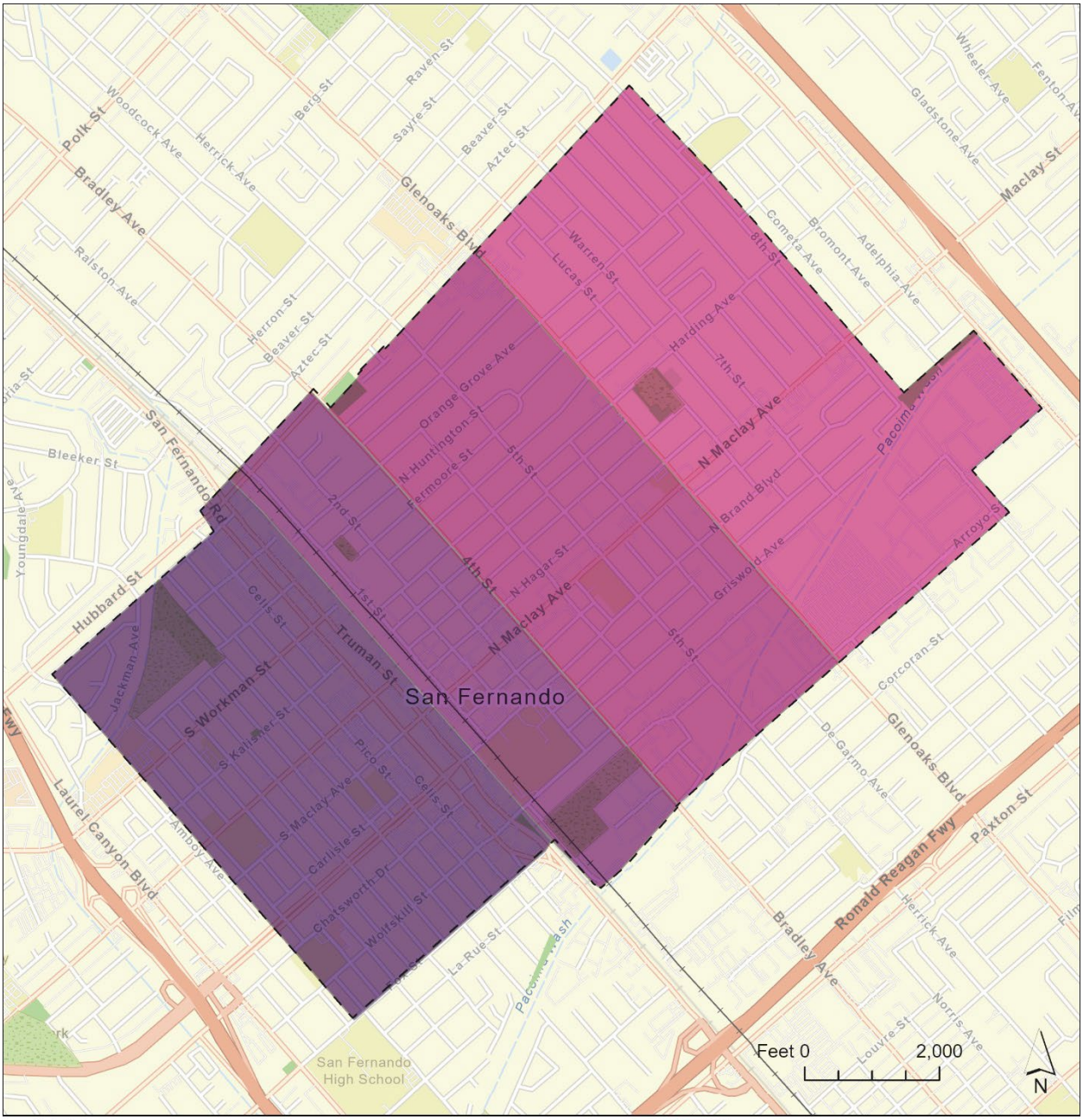
City Boundary
Railroads

Parks
Local Park
National Park or Forest
Regional Park

Education Percentile
90-100
80-90
70-80
60-70
50-60
40-50
30-40
20-30
10-20
0-10
Bolded indicates percentile present in San Fernando

Imagery provided by ESRI and their licensors © 2021.
Additional data provided by California Office of Environmental Health Hazard Assessment, CalEnviroScreen 4.0, 2021.

Figure 8 CalEnviroScreen Indicator Map – Linquistic Isolation



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