DRAF

CITY OF IRWINDALE

General Plan

Safety Element

April 2024

City of Irwindale
5050 North Irwindale Avenue
Irwindale, California 91706

Contents

CONTENTS

CONTENTS

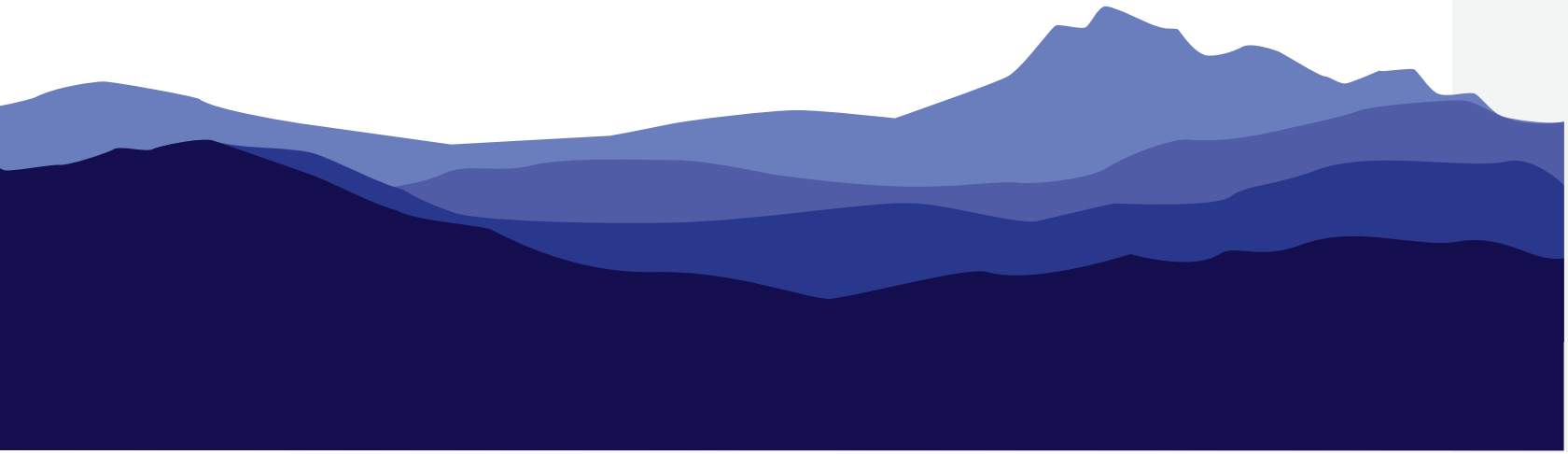
APPENDICES

FIGURES

TABLES

INTENTIONALLY BLANK

SECTION 1 Introduction



The Safety Element of the General Plan addresses potential risks to life and property resulting from naturally occurring hazards, such as earthquakes and floods, and man-made hazards, such as air pollution and contamination of water quality. The Safety Element also identifies public safety providers such as law enforcement and emergency preparedness and response teams. As in other elements of the General Plan, background information on these topics is presented in the first part of the chapter, and goals, policies, and actions are presented at the end.

An important function of this Element is to identify locations in Irwindale that may be inappropriate for certain land uses due to potential risks and hazards. This Element also identifies areas where hazards are present but can be mitigated through special design and site planning measures. For example, Irwindale is located approximately 1.5 miles from the base of the San Gabriel Mountains, which are located in a Very High Fire Hazard Severity Zone and have a history of frequent wildland fires. This requires that preventative measures such as **fuel modification** be implemented to reduce the spread of wildfire to residential areas and businesses and prevent or minimize personal injury, loss of life, and property damage due to fire hazards. The hazards discussed in this Element help to shape Irwindale's Land Use Map, and have influenced its community development, housing, resource management, and infrastructure policies.

The specific topics covered by this chapter are listed below:

- Air Quality
- Drought
- Extreme Weather
- Flooding
- Geologic and Seismic Hazards
- Hazardous Materials
- Law Enforcement and Crime
- Wildfire
- Emergency Preparedness

Fuel modification is used to reduce wildfire threat in high fire hazard areas by removing and/or separating fire-prone plants, which are also known as "fuel." In a fire break or fuel break, all fire-prone plants are removed down to bare soil, leaving nothing left to burn. Fuel breaks are used to control low-intensity fires and are usually a minimum of 3 feet wide, but much wider breaks are needed to hold large fires.

CAL FIRE 2022

Fuel modification image courtesy of CAL FIRE's 2021 Fuels Reduction Guide (CAL FIRE 2021b)

Key Terms Definitions

- **Active Shooter.** A criminal attempt to kill people in a confined and populated area.
- **Basin.** The area within which all surface water—whether from rainfall, snowmelt, springs, or other sources—flows to a single water body or watercourse. The boundary of a river basin is defined by natural topography, such as hills, mountains, and ridges. Basins are also referred to as "watersheds."
- **Climate Change.** A change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.
- **Conservation.** Conservation is the wise management of renewable and non-renewable resources to prevent the unnecessary waste, destruction, or neglect of resources for the enjoyment of future generations, such as water, air and energy systems. The preservation of these resources is concerned with the quality and quantity of the resource.
- **Critical Facilities.** Critical facilities are facilities that either (1) provide emergency services or (2) house or serve many people who would be injured or killed in case of disaster damage to the facility. Examples include hospitals, fire stations, police or emergency service facilities, utilities, or communications facilities.
- **Dam Failure.** An uncontrolled release of impounded water due to a partial or complete breach in a dam (or levee) that impacts its integrity.
- **Diesel PM.** Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter.
- **Earthquake.** An earthquake is the shaking of the ground caused by an abrupt shift of rock along a crack in the earth or a contact zone between tectonic plates.
- **Extreme Heat Days.** Extreme heat days are defined as days when daily maximum temperatures rise above a threshold temperature of 101.3 degrees Fahrenheit (°F) and persist over a period of time, from a couple of days to weeks or months (Cal-Adapt 2018).
- **Fault.** A fracture in the earth's crust forming a boundary between shifting rock masses.

- **Fire Hazard Zone.** An area where, due to slope, fuel, weather, or other fire-related conditions, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.
- **Flood, 100-Year and 500-Year.** The magnitude of a flood expected to occur on the average every 100 or 500 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any given year. The 500-year flood has a 1/500, or two tenths of one percent, chance of occurring in any given year.
- **Floodplain.** The land area along the sides of a river that becomes inundated with water during a flood.
- **Fuel Modification.** Fuel modification is used to reduce wildfire threat in high fire hazard areas by removing and/or separating fire-prone plants, which are also known as "fuel." In a fire break or fuel break, all fire-prone plants are removed down to bare soil, leaving nothing left to burn. Fuel breaks are used to control low-intensity fires and are usually a minimum of 3 feet wide, but much wider lines are needed to hold large fires.
- **Habitat.** The physical location or type of environment in which an organism or biological population lives or occurs.
- **Hazardous Material.** Any substance that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The term includes, but is not limited to, hazardous substances and hazardous wastes.
- **Joint Powers Authority (JPA).** A legal arrangement that enables two or more units of government to share authority in order to plan and carry out a specific program or set of programs that serves both units.
- **Landslide.** A general term for a falling mass of soil or rocks.
- **Liquefaction.** The transformation of loose water-saturated granular materials (such as sand or silt) from a solid into a liquid state that can occur during an earthquake.
- **Mitigation.** A preventive action taken in advance of an event to reduce or eliminate risk to life or property.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Open Space.** An open area that is primarily maintained in its natural condition and is essentially unimproved and devoted to an open space use for the purposes of (1) the preservation of natural resources, (2) the

managed production of resources, (3) outdoor recreation, or (4) public health and safety. In some cases, this definition includes pathways, landscaping and other improvements that are maintained. The provision of open space is intended to offer residents and visitors opportunities for quiet introspection in a location that provides visual relief from buildings, concrete and noise associated with more urban life.

- **Pandemic.** An epidemic of infectious disease that has spread through human populations across a large region, multiple continents, or worldwide.
- **Park.** A park is an improved, primarily unobstructed area, with landscaping and recreational equipment such as play apparatuses and/or basketball courts. In some cases, this definition includes property with recreation buildings or structures. The purpose of parks is to provide opportunities for outdoor recreation and physical exercise near to residential and employment areas.
- **PM2.5.** PM2.5 is made of tiny airborne particles that can cause adverse health effects when inhaled and can reduce visibility. $PM_{2.5}$ is released from fuel combustion, demolition and construction activities, and atmospheric chemical reactions.
- **Risk.** The estimated impact that a hazard would have on people, services, facilities, and structures in a community. Risk measures the likelihood of a hazard occurring and resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to occurrence of a specific type of hazard. Risk also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.
- **Seiche.** An earthquake-generated wave in an enclosed body of water such as a lake, reservoir, or bay.
- **Stakeholder.** Business leaders, civic groups, academia, non-profit organizations, major employers, managers of critical facilities, farmers, developers, special purpose districts, and others whose actions could impact hazard mitigation.
- **Tsunami.** A large ocean wave generated by an earthquake in or near the ocean sensitivities, mentally ill, with service animals, etc.
- **Vulnerability.** Assessment of how exposed or susceptible an asset is to damage. Vulnerability depends on an asset's construction, contents, and the economic value of its functions.

- **Vulnerable Populations.** Vulnerable populations include those persons or groups of persons particularly vulnerable and in need of special attention in an emergency or disaster situation. Examples of sensitive populations include seniors, children, unhoused, low-income, outdoor workers, uninsured, and individuals with existing health conditions.
- **Wildland Urban Interface.** The Wildland Urban Interface is the zone of transition between unoccupied land and human development. It is the line, area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.
- **Windstorms.** Windstorms are storms characterized by high winds or violent gusts that can be strong enough to damage trees and buildings, and disrupt essential systems, including public utilities and transportation corridors.

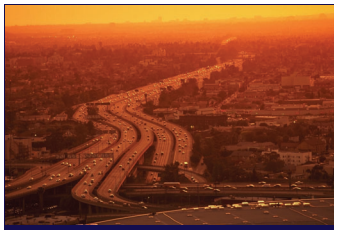
Climate Change

Many of the hazards impacting the city are made worse by **climate change**. There is scientific consensus that **greenhouse gas (GHG) emissions** are the primary cause of global climate change. GHGs trap heat in the atmosphere and lead to increasing global temperatures. Human activities such as agriculture, land use changes, and burning of fossil fuels have contributed significantly to atmospheric concentrations of GHG emissions.

Climate change affects natural and human systems, including but not limited to food production, water availability, public health, economic prosperity, and ecosystem biodiversity. In addition, climate change will likely worsen the impact of natural hazards. Fire safety is of growing importance in California due in part to climate change. As a result, state law requires that general plans in high-risk areas, generally at the wildland urban interface, address wildfire risks. In addition, Senate Bill (SB) 1035 (2018) requires regular updates to the Safety Element chapter of the General Plan to address new information regarding flood and fire hazards, as well as climate change adaptation and resilience. State law also requires local governments to identify and evaluate evacuation routes (Assembly Bill [AB] 747, 2019) and to identify residential developments in hazard areas that do not have at least two emergency evacuation routes (SB 99, 2019).

Climate change is defined as the significant and lasting alteration of global temperatures and weather patterns over a long period of time, caused by natural and human activity.

USEPA 2022



According to the U.S. Environmental Protection Agency, transportation is one of the largest sources of pollution in the U.S. (USEPA 2022)

Expected impacts from climate change in Irwindale include worsening air quality, prolonged drought, extreme weather conditions, flooding, and intense wildfires. These threats will not affect everything and everyone equally. Some people and places are more exposed and/or more sensitive to climate impacts. As such, the increased risk of natural hazards as a result of climate change, including local vulnerabilities, are addressed within each hazard section, as applicable.

Relationship to Other General Plan Elements

To ensure that the General Plan is consistent across elements, hazards discussed in the Safety Element are related to other elements of the General Plan, including Community Development, Housing, Resource Management, and Infrastructure. Some of these relationships between other General Plan elements and this Safety Element are summarized and illustrated below:

- Policies related to areas at risk of recurring flooding, dam failure, and fire are found in the **Community Development**, **Infrastructure**, and **Resource Management** Elements.
- Policies associated with secondary access during an emergency are found in the **Infrastructure** Element.
- Policies important to resilience planning in urban development as well as protecting critical facilities from hazardous threats are found in **Community Development**, **Housing**, and **Infrastructure** Elements.
- Policies related to maintaining recreation and open space and water quality are addressed in the **Resource Management** Element.
- Air quality is addressed in the **Resource Management** Element.

Taken together, the policies in the General Plan minimize risks, protect the quality of life, and provide a foundation for response and recovery when disaster strikes. References to related policies are provided where appropriate within the Safety Element.

Statutory Requirements

California Government Code Section 65302(g) includes the requirements that should be addressed in a community's General Plan Safety Element. These requirements are organized into nine subsections [65302(g)(1) through 65302(g)(9)], which are summarized below:

- 65302(g)(1) identifies the primary hazards/ issues that should be included in the Safety Element, which include: seismically induced surface rupture, ground shaking, ground failure, slope instability leading to mudslides and landslides, tsunami, seiche, dam failure, flooding, subsidence, liquefaction, other geologic hazards, wildland and urban fires, evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.
- 65302(g)(2) adopted through AB 162 (2007) identifies the requirements to update floodplain mapping and information, which includes special requirements.
- 65302(g)(3) adopted through SB 1241 (2012) identifies the requirements for updating wildfire mapping, information, and goals and policies to address wildfire hazards.
- 65302(g)(4) adopted through SB 379 (2015) identifies the requirements for updating the Safety Element to address potential impacts associated with climate change and potential strategies to adapt/mitigate these hazards.
- 65302(g)(5) adopted through SB 99 (2019) requires identification of specified evacuation constraints associated with residential developments.
- 65302(g)(6) adopted through SB 1035 (2018) requires the update of the Safety Element every time the Housing Element or local hazard mitigation plan is updated.
- 65302(g)(7) allows for the incorporation of a flood plain management ordinance into the safety element.
- 65302(g)(8) requires consultation with the California Geological Survey, California Office of Emergency Services.
- 65302(g)(9) allows cities to adopt a county Safety Element if adequate detail is provided to address city-level concerns.

Additionally, California Government Code Section 65302.15 was adopted through AB 747 (2019) and includes the requirement to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios.

Safety Element Existing Conditions Report

The Safety Element Existing Conditions Report (**Appendix A**) provides detailed information on existing hazards, community vulnerabilities, and the City's capacity to respond to hazards. The information contained within the report provides the foundation for the update of the Safety Element, including the formulation of goals and policies. The reader should refer to the Existing Conditions Report in Appendix A for the most up-to-date and comprehensive information on hazards impacting the city. A summary of the existing conditions is provided in this Safety Element to give context and a clear link to the goals, policies, and actions.

Community Outreach

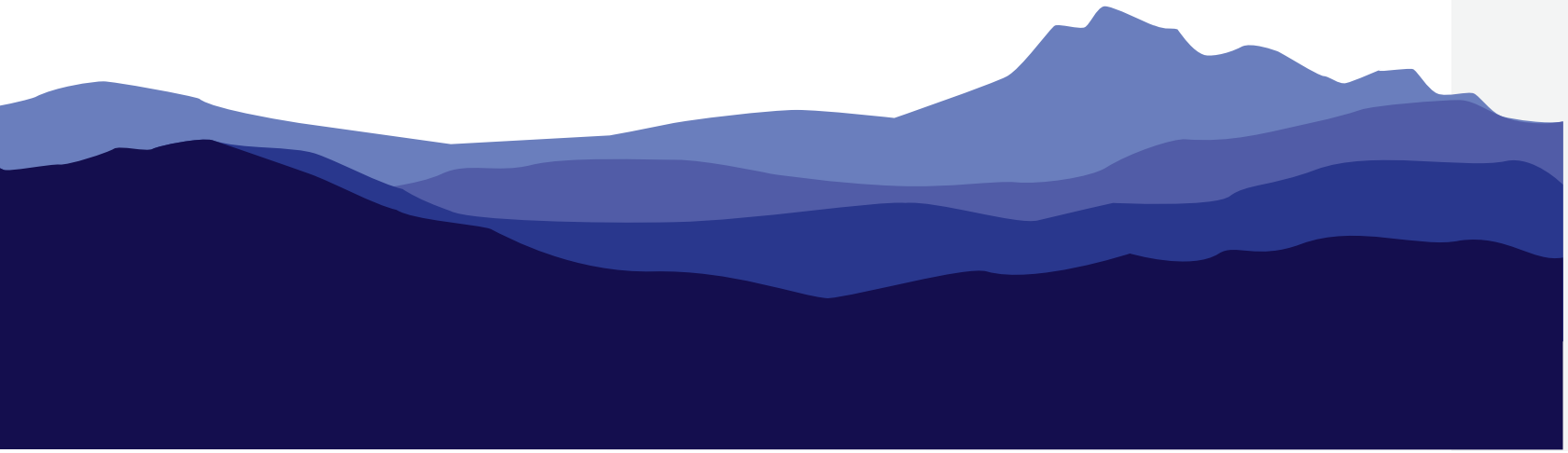
Golden Streets event with CicLAvia at the Metro parking structure

Community input guides the City's planning decisions and policies, including land use strategies and practices. The City of Irwindale led a community engagement process that included workshops and an online survey to better understand the needs and ideas of Irwindale residents and employees as they relate to safety topics such as pollution exposure, air quality, safe neighborhoods, and community hazards among others.

Each hazard topic in this Safety Element concludes with a section on community and stakeholder input, which summarizes feedback received through the survey, community workshops, and stakeholder meetings related to each topic. Input received from the public engagement activities informed the development of policies and actions in this Safety Element.

INTENTIONALLY BLANK

SECTION 2 Existing Conditions



Air Quality

Introduction

Air quality is a local and regional issue and an important contributor to health and quality of life. Poor air quality can impact health in a community and contribute to asthma, respiratory disease, and some cancers. The Los Angeles region is known for having some of the poorest air quality in the country, and climate change will likely exacerbate existing air quality issues. Within the Los Angeles region, ozone and particulate matter (PM) are the primary pollutants. Climate change is expected to result in increases in extreme heat events, which can increase pollution from ozone. Additionally, increases in wildfire activity will lead to higher PM concentrations.

Local Conditions

The Environmental Protection Agency (USEPA) uses the United States Air Quality Index (AQI) for daily reporting of air quality, providing a value for ozone, particulate matter, and other air pollutants based on their concentration or level of pollution. The AQI uses these values to categorize air quality from Hazardous to Good, shown in **Table SAF-1**. In April 2023 the City of Irwindale has

TABLE SAF-1 **Air Quality Index (AQI) Basics for Ozone and Particle Pollution**

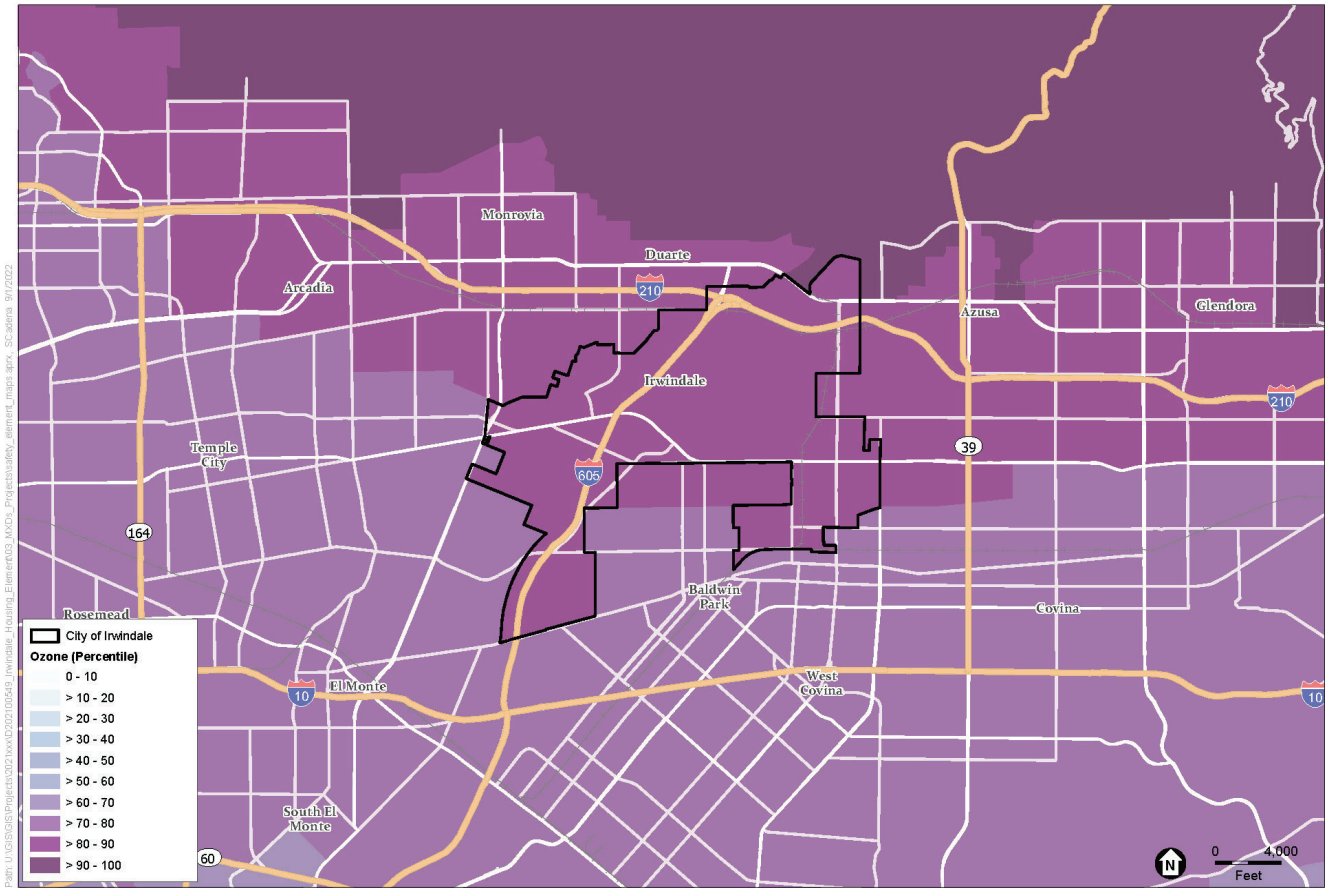
DAILY AQI COLOR	LEVELS OF CONCERN	VALUES OF INDEX	DESCRIPTION OF AIR QUALITY
Green	Good	0 to 50	Air quality is satisfactory, and air pollution poses little or no risk.
Yellow	Moderate	51 to 100	Air quality is acceptable. However, there may be a risk for some people, particularly those who are unusually sensitive to air pollution.
Orange	Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is less likely to be affected.
Red	Unhealthy	151 to 200	Some members of the general public may experience health effects; members of sensitive groups may experience more serious health effects.
Purple	Very Unhealthy	201 to 300	Health alert: The risk of health effects is increased for everyone.
Maroon	Hazardous	301 and higher	Health warning of emergency conditions: everyone is more likely to be affected.

experienced Good and Moderate levels of air quality for major pollutants of concern. Irwindale generally experiences greater pollution from ozone, fine particulate matter (PM2.5), and diesel particulate matter (diesel PM), which are defined below.[1] Ozone, which is the main ingredient of smog, is generally produced by trucks, cars, planes, trains, factories, construction, and dry cleaners. The ozone percentile in Irwindale is 83, meaning the city's ozone concentration (0.06 parts per million) is greater than 83 percent of other communities statewide, and greater than the county average (60 percentile) (OEHHA 2021). **Figure SAF-1** shows ozone pollution in the region, which is greater as you go further inland, and north of Irwindale. Ozone can irritate the lungs and worsen many types of chronic illnesses.

PM2.5 is very small airborne particle pollution that may include a mix of organic chemicals, dust, soot, and metals. PM can be generated from cars, trucks, mining pits, factories, and wood burning. Irwindale has a PM 2.5 percentile of 67, meaning PM 2.5 concentration (11.7 micrograms per meter cubed) is greater than 67 percent of other communities statewide. However, PM 2.5 concentration is slightly lower in Irwindale than the county average (71 percentile). **Figure SAF-2** shows PM2.5 pollution in the region, with a lower concentration of particulate matter in Irwindale than areas to the west, south and east. Because of the small size of particles in PM2.5, they can travel deep into the lungs and result in health problems such as lung and heart disease.

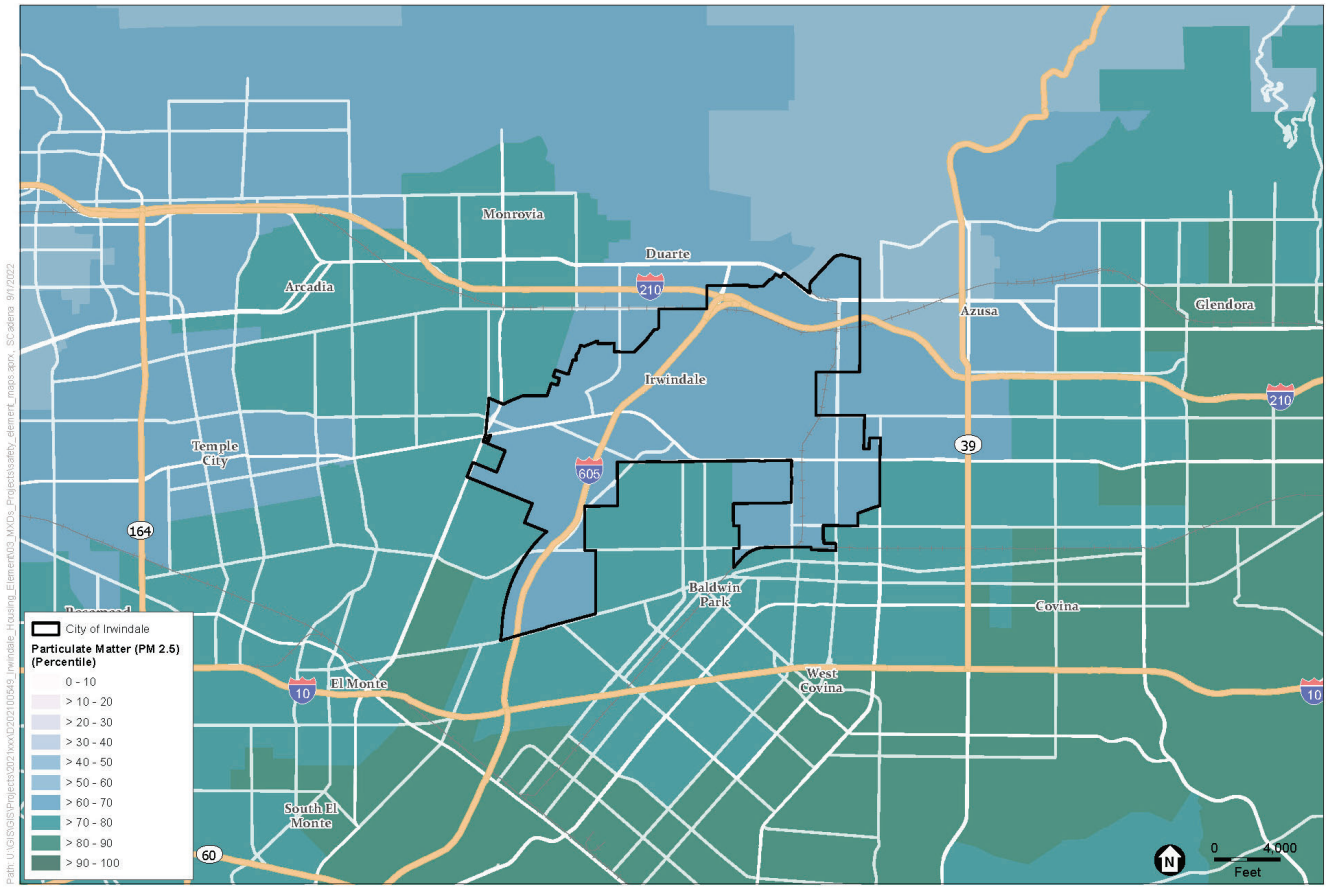
Diesel PM is produced by the exhaust of trucks, buses, trains, ships, and equipment with diesel engines. Concentrations of diesel PM tend to be highest near ports, rail yards, and freeways. Within and near Irwindale, 0.24 tons of diesel PM per year are emitted into the air, which is greater than 68 percent of other communities statewide (OEHHA 2021). **Figure SAF-3** shows Diesel PM pollution in the region, with Irwindale having a greater concentration than neighborhoods to the west and south. The chemicals and particles in diesel PM can cause eye, throat, and nose irritation and can contribute to heart and lung disease and lung cancer.

[1] The pollution percentiles for ozone, PM2.5, and diesel PM in Irwindale are relative to other census tracts in California. Irwindale has only one census tract.



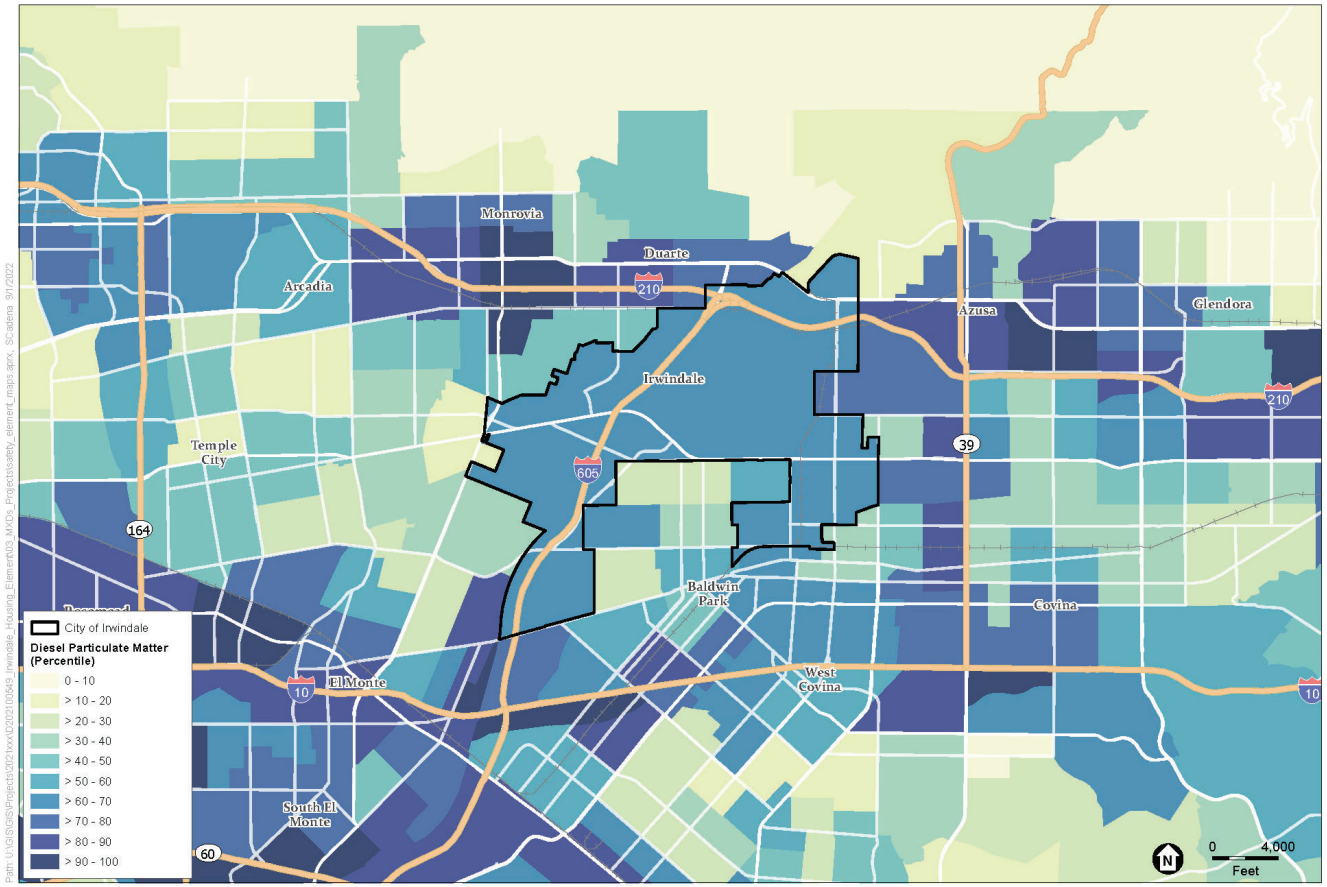
SOURCE: OEHHA 2021; ESRI 2022; ESA 2022

FIGURE SAF-1 **Ozone Percentile in Irwindale**



SOURCE: OEHHA 2021; ESRI 2022; ESA 2022

FIGURE SAF-2 **Particulate Matter Percentile in Irwindale**



SOURCE: OEHHA 2021; ESRI 2022; ESA 2022

FIGURE SAF-3 **Diesel Particulate Matter Percentile in Irwindale**

Land uses in Irwindale are largely dedicated to industrial uses, which rely heavily on trucks and diesel equipment that contribute to higher levels of air pollution (City of Irwindale 2013).[2] Additionally, due to Irwindale's inland location, it has higher levels of ozone pollution compared to other areas of Los Angeles County.

The Union Pacific Railroad along southern Irwindale and major freeways such as the I-210 and the I-605 also contribute to air pollution within the city.

Local Vulnerabilities

Air pollution can affect some people—such as seniors, children, pregnant individuals, unsheltered or homeless individuals, individuals without health insurance or access to healthcare, and individuals with preexisting health conditions—more than others.

Poor air quality has been linked to respiratory conditions such as asthma, pulmonary disease, pneumonia, bronchitis and other infections, as well as cardiovascular conditions such as heart disease, heart failure, and cardiac arrest. Poor air quality can also affect cancer and contribute to low birth weight of infants. Almost 9 percent of adults in Irwindale are affected by asthma, 4 percent are affected by cancer, and 5 percent are affected by heart disease (CDC 2019). In addition, 4 percent of births in Irwindale are low birth weight (OEHHA 2021). These percentages are on par with county and state averages, shown in **Table SAF-2**.

TABLE SAF-2 **Health in Population**

HEALTH OUTCOMES	IRWINDALE	COUNTY	STATE
Asthma	8.7%	9.2%	10%
Cancer	4.1	5.2%	6.2%
Heart Disease	4.8%	5.6%	6.3%
Low Birth Weight	4.4%	5.3%	5%

SOURCE: CDC PLACES (2019) and OEHHA (2021)

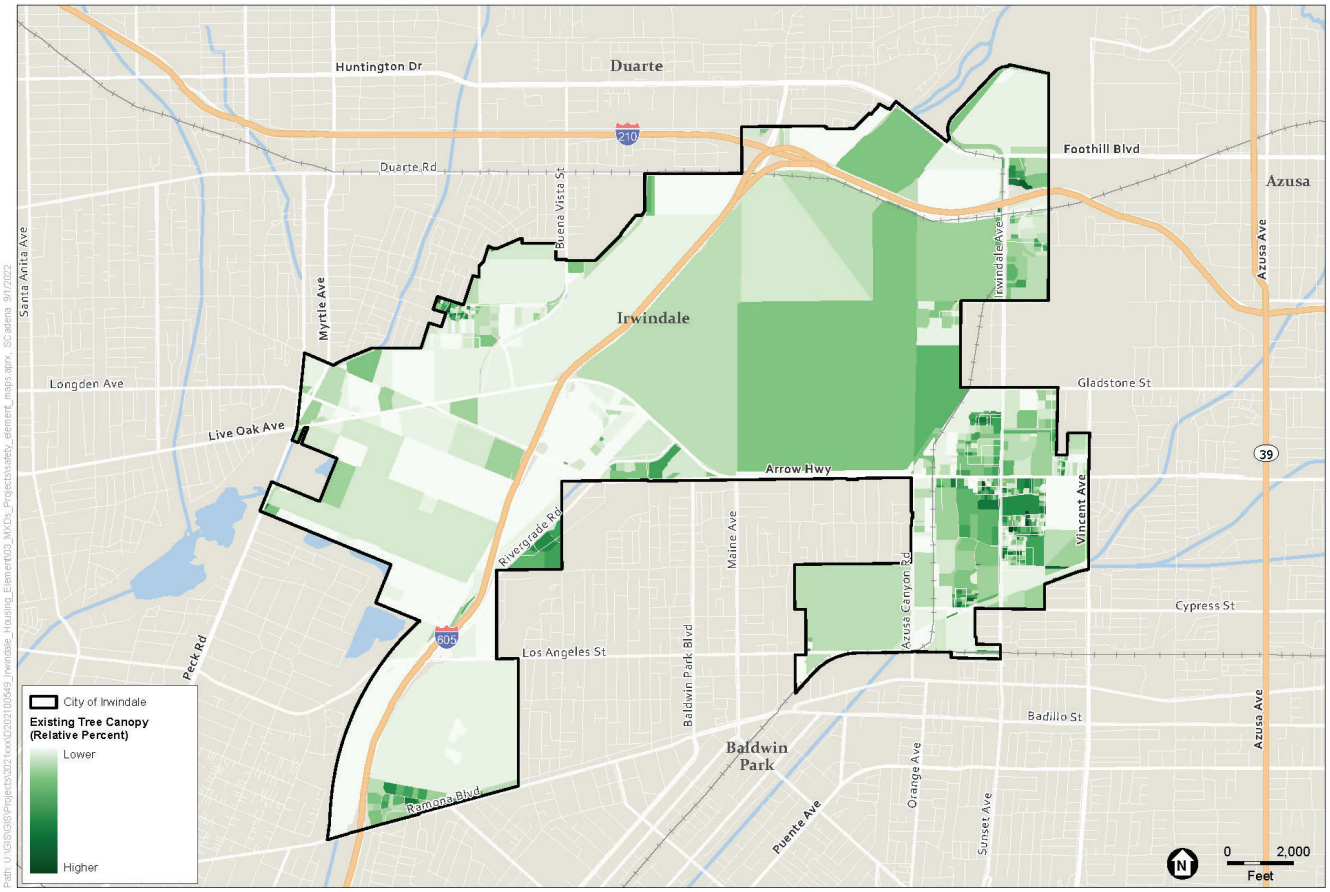
Lack of parks, open spaces, and trees can also exacerbate air pollution and public health risks. A large portion of land is occupied by parks and recreation, including in the Santa Fe Dam and Recreation Area, and a majority of residents are within a 10-minute walk to a park (TPL 2022). Approximately 31 percent of land is dedicated to parks and open space, and 61 percent of residents are located within a 10-minute walk of a park. However, existing tree canopy accounts for

[2] Manufacturing land uses accounting for approximately 44 percent of the total land area, while retail accounts for 3 percent and residential accounts for less than 1 percent.

only 7 percent of a possible 80 percent of land in the city (TreePeople 2022). Residents that live in areas with fewer parks and trees may experience greater exposure to air pollution. **Figure SAF-4** shows relative existing tree canopy within the city, with greater canopy present in the southeast area of the city where most residents live. However, there is lower canopy in the western portion of the city and along major roads including Arrow Highway, Rivergrade Road, Los Angeles Street, Buena Vista Street, Azusa Canyon Road, and northern Irwindale Avenue. The western and northern portions of the city are also where there is greater exposure to pollution from traffic, due to the I-605 and I-210 freeways, and where more tree canopy may be beneficial to help reduce air pollution exposure. An individual's exposure to air pollution is directly linked to their proximity to roadways and the volume of traffic on those roadways. Studies have found that greater exposure to pollution from traffic increases risk for health outcomes, including respiratory and cardiovascular conditions, cancer, and adverse birth outcomes (OEHHA 2021a). In addition, people of color and lower-income individuals are more likely to live and go to school in areas with greater traffic exposure, adding disproportionate burden to vulnerable populations. *See the Irwindale Environmental Justice – Public Facilities section for additional information on parks and tree canopy.*

Buildings, homes, and streets can also increase community exposure to air quality. Households without adequate air conditioning may rely on open windows for cooling, increasing their exposure to air pollution. Lack of safe and separated bicycle and pedestrian routes can also increase proximity and exposure to trucks and other sources of air pollution. Several major roadways in Irwindale—including Irwindale Avenue, Arrow Highway, Foothill Boulevard, and Live Oak Avenue—serve as designated truck routes, which creates challenges for reducing pollution exposure for bicyclists and pedestrians (City of Irwindale 2021b).

Days with poor air quality can also result in secondary impacts, such as missed days of work and school and the need for sheltering indoors. This can lead to financial instability as well as impacts to mental health due to restrictions in outdoor activities, social gathering, and access to community services.



SOURCE: TreePeople 2022; LMU CURes 2022; ESA 2022

FIGURE SAF-4 **Existing Tree Canopy**

Local Initiatives

Industrial uses in the city largely contribute to greater levels of air pollution, making residents and visitors more vulnerable to impacts. Climate change will also increase pollution issues, due to extreme temperatures, storms and urban runoff, and wildfires.

While the city currently lacks policies within its General Plan and Local Hazard Mitigation Plan to address air quality issues, the City provides a Resident Benefit program for residents to access health care and prescription benefits to alleviate potential air quality impacts, and also requires businesses to apply for conditional use permits to mitigate for potential impacts due to emissions generated.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The South Coast Air Quality Management District (SCAQMD) is the regional air pollution control agency for the counties of Los Angeles, Orange, Riverside, and San Bernardino. SCAQMD manages the local and regional air quality through rules, incentive programs, and air quality plans. The SCAQMD maintains the Air Quality Management Plan (AQMP), Clean Communities Plan, and the Vision for Clean Air. Additionally, the SCAQMD creates guidance documents to assist local governments with air quality planning.

New businesses are required to get approval for their proposed use from the SCAQMD, as a way to help monitor and improve air quality. The SCAQMD also provides wildfire smoke and ash health and safety tips, complaint hotlines for smog, and incentive programs to replace older, heavy-duty diesels with electric, alternative-fuel or cleaner diesel technologies (i.e., Carl Moyer Program).

The SCAQMD also works with the California Air Resources Board on AB 617 implementation for the Community Air Protection Program, which identifies communities most impacted by local air pollutants and provides funding for monitoring and emission reduction plans that help reduce exposure. Several communities near Irwindale have been selected to participate in the AB 617 program for air quality monitoring and emission reduction planning, including East Los Angeles, Boyle Heights, and West Commerce to the southwest of the city, and San Bernardino and Muscoy to the northeast. As air quality is a regional issue and extends beyond jurisdictional boundaries, improvements to air quality in nearby communities can improve air quality within Irwindale.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The Southern California Association of Governments (SCAG) is the regional planning organization for the Southern California region that includes the counties of Los Angeles, Imperial, Orange, Riverside, San Bernardino, and Ventura. SCAG's Air Quality Planning Program works in collaboration with the SCAQMD to develop the AQMD for the region, as well as to ensure transportation projects are in compliance with federal, state, and regional air quality standards and requirements.

Key Findings Related to Air Quality

- Irwindale currently experiences Good and Moderate air quality according to the EPA's daily reporting for quality.
- Local and regional air quality is affected primarily by ozone, PM2.5 and diesel PM. This pollution is produced from vehicles, factories, construction, mining pits, dry cleaners, wood burning, and diesel engines and equipment.
- A majority of land uses in Irwindale are dedicated to industrial activity (44 percent), which contributes to greater air pollution than commercial uses (3 percent) and residential uses (less than 1 percent).
- Irwindale has relatively high levels of pollution among other census tracts in California. Ozone is in the 83rd percentile; PM2.5 is in the 66th percentile, and diesel PM is in the 68th percentile.
- Some populations in Irwindale have greater vulnerability to air pollution. These include seniors, children, and individuals experiencing pregnancy, homelessness, lack of health care, and preexisting health conditions, among others.
- Greater levels of and exposure to air pollution can affect physical health, such as respiratory

and cardiovascular systems, cancers, and low birth weight in infants.

- Days of poor air quality may require sheltering in place, or missed work and school days. This has the potential to affect financial stability, mental health, social gathering, and access to community resources and services.
- While parks and open space make up 31% of land uses, the city has a low percentage (7 percent) of tree canopy. There is potential to increase tree canopy by almost 73 percent.
- There is lower tree canopy along major freeways and roads, where exposure to air pollution can be greater. This includes areas along I-605, I-210, including Arrow Highway, Rivergrade Road, Los Angeles Street, Buena Vista Street, Azusa Canyon Road, and northern Irwindale Avenue.
- Buildings and homes without adequate cooling (e.g., air conditioning) may rely on open windows during extreme heat temperatures. This increases exposure to poor air quality.
- Major roadways serve as designated truck routes, increasing risk for pollution exposure for bicyclists, pedestrians, and other outdoor and active commuters.
- The City provides a residential benefits program to help residents access health care and medication to alleviate impacts due to poor air quality and requires business to apply for permits to mitigate for potential impacts from emissions. However, there is a lack of policies within long-range planning documents (General Plan and Local Hazard Mitigation Plan) that address sources of air pollution and increase community **resiliency** to poor air quality.
- The SCAQMD provides programs to help improve local and regional air quality. These include resources for wildfire smoke and ash, pollution reporting hotline, and incentive programs for replacing diesel fuels with cleaner alternatives.

Resiliency is the capacity of populations or systems to recover from events, such as earthquakes and extreme weather impacts.

Resiliency

Community Feedback

The City of Irwindale conducted a community survey to identify priorities and concerns relating to safety in the community. These survey results are summarized below and represent a sample of the population.

Regarding pollution and air quality, both Irwindale residents and employees identified "air quality" to be a significant hazard concern with an emphasis on pollution from neighboring industrial uses.

- Of the residents surveyed, 53 percent identified poor air quality to be a primary concern, second only to crime (59 percent).
- In a survey asking for priority concern of environmental hazards, including fire, extreme temperatures, drought, pandemic, flooding, 45 percent of residents selected poor air quality as the primary hazard of concern.
- In a survey on specific pollution concerns, the majority (77 percent) of Irwindale residents and most Irwindale employees (44 percent) identified "bad air pollution or dangerous fumes from industrial land uses" as the greatest concern.
- "Bad air pollution from cars and trucks" was identified as a concern by 46 percent of residents and 33 percent of employees.
- Employees identified air quality as a principal health concern in the community.

Drought

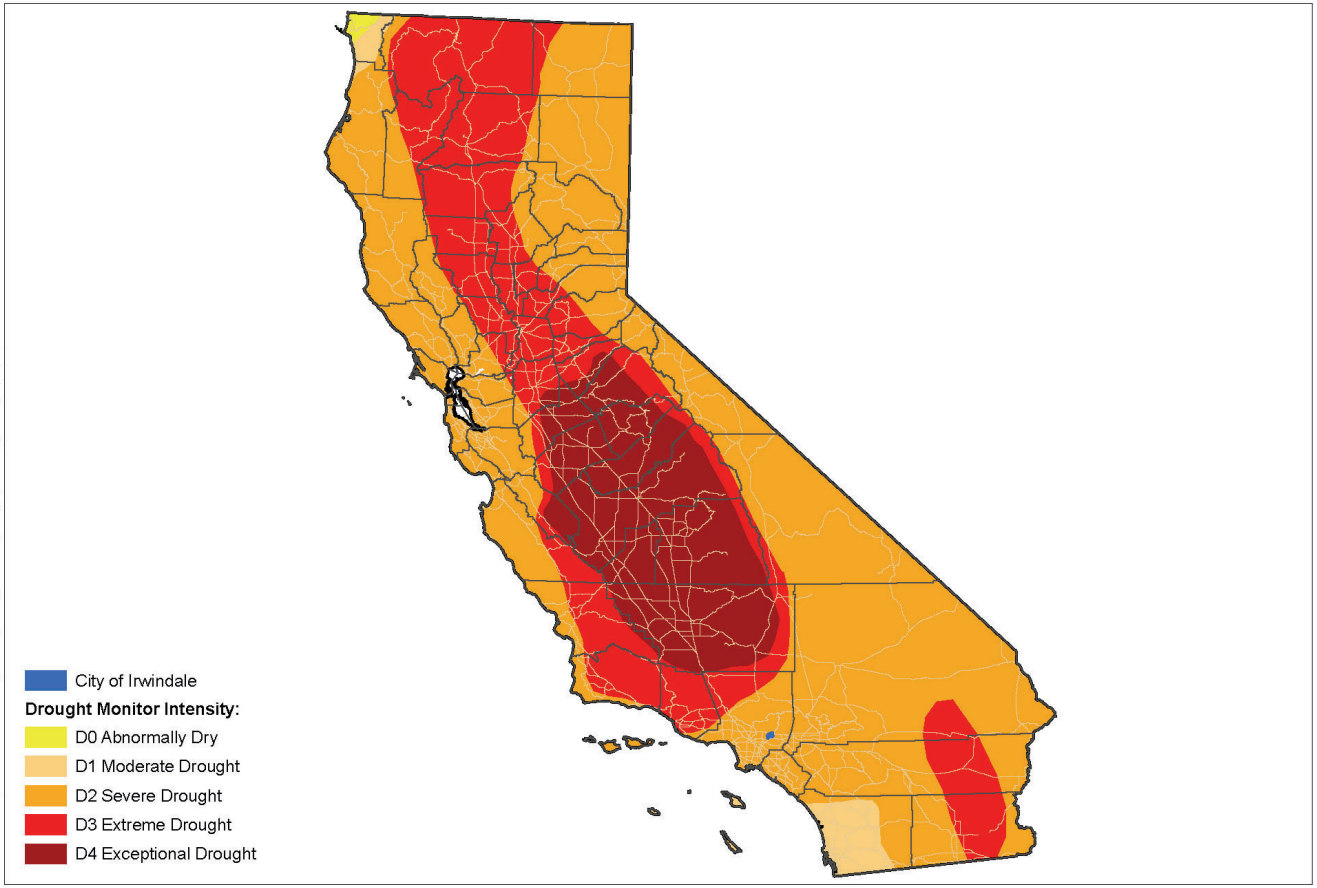
Introduction

Drought occurs when a prolonged period of abnormally low rainfall leads to a water shortage. Drought can also occur from a decrease in snowpack for regions that depend on this for water supply. During periods of drought, less water is available for delivery to communities, which affects drinking water as well as water for other uses such as landscaping and irrigation, agriculture, energy, and cooling. Water demand and water quality conditions can also change during drought. Other climate hazards such as extreme heat, sea-level rise, strong winds, and flooding can add pressure on water supplies and exacerbate drought conditions.

Local Conditions

Approximately 75 percent of Southern California's potable water is delivered from the Colorado Aqueduct and the California Aqueduct through the State Water Project. The city's main water resources include groundwater from the San Gabriel Mountains, surface water resources, and treated water that is imported via water companies. As a member of the Upper San Gabriel Valley Municipal Water District (MWD), the City of Irwindale receives water purchased from the Metropolitan Water District of Southern California through several public and private water suppliers, including water districts and divisions from neighboring jurisdictions, as well as private water companies. Agencies that provide this service to businesses and residents in Irwindale include the City of Azusa Light and Water Department, the Monrovia Water Division, the San Gabriel Valley Water Company, Golden State Water, and Cal American Water, and the Valley County Water District.

Local drought conditions vary depending on location since water sources and conditions vary by community. The City of Irwindale is vulnerable to drought conditions due to its Mediterranean climate, low levels of precipitation, and dependence on outside water resources. According to the Main San Gabriel Basin Watermaster, statewide rainfall and snowpack at the end of the wet season were far below normal for the second year in a row. Snowpack was 59 percent below the average, which affects the amount of groundwater that is available to be used by the community. Annual precipitation levels will likely decrease in the next century and create worsening drought conditions over time. **Figure SAF-5** shows that Los Angeles County,



SOURCE: USDM 2022; ESRI 2022; ESA 2022

FIGURE SAF-5 **State Drought Conditions**

which includes Irwindale, is currently experiencing Extreme and Severe Drought conditions. Historically, extreme drought conditions have resulted in recreational activity being affected because of low water flow in rivers, lakes, and reservoirs and because of water conservation measures being implemented for urban and agricultural needs.

PAST DROUGHT OCCURRENCES IN IRWINDALE

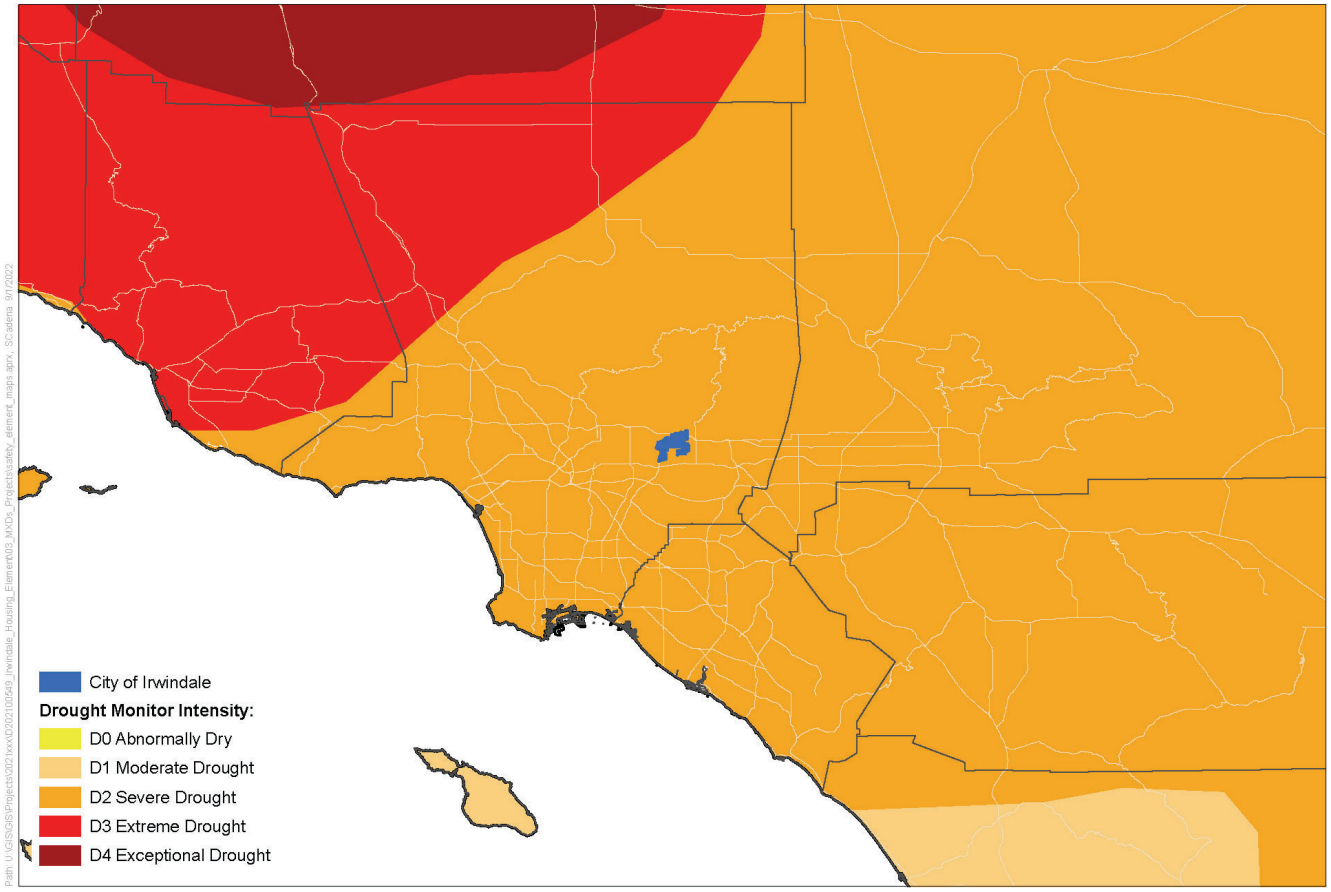
From 1961 to 1990, the City of Irwindale saw an average of 19.3 inches of annual precipitation. This is expected to decrease to an average of 19 inches by mid- to late century. Dry periods, or dry spells, historically averaged 130 days. Future conditions will likely increase up to 138 days by mid-century and up to 145 days by late-century.

Southern California has experienced more frequent and extended periods of drought in the past decade. The most recent 5-year drought period from 2012 through 2016 saw much of the state in severe drought conditions due to unusually dry and warm climate, reduced snowpack and runoff, little precipitation, and increased temperatures. These conditions resulted in water shortages to natural ecosystems, hydropower activities, drinking water supply, agriculture, and municipalities. Statewide, the drought affected biological and ecological resources, households, and businesses and resulted in economic losses.

Local Vulnerabilities

Unlike hazards such as wildfire and flooding, which provide direct impacts, drought produces a web of impacts beyond the areas experiencing physical drought.

Figure SAF-6 shows that Irwindale is currently experiencing Severe Drought conditions. All people, property, and environments in the Irwindale planning area would be exposed to some degree to the impacts of moderate to extreme drought conditions. Industries that rely on water are affected in terms of potential revenue and employment. Physical assets and infrastructure are also at risk from drought conditions, particularly public facilities and services that rely on water to operate. Extreme and Severe Drought conditions are defined in **Table SAF-3**, which lists the drought monitor classifications, their descriptions and impacts as defined by the National Drought Mitigation Center.



SOURCE: USDM 2022; ESRI 2022; ESA 2022

FIGURE SAF-6 **County Drought Conditions**

TABLE SAF-3 **U.S. Drought Monitor Classifications**

CATEGORY	DESCRIPTION	IMPACTS
Drought		
D0	Abnormally Dry	Short-term dryness
D1	Moderate Drought	Growth of crops and pastures is slowed
D2	Severe Drought	Impacts on crops and pastures
D3	Extreme Drought	Water shortages developing in reservoirs, streams, and wells
D4	Exceptional Drought	Voluntary water restrictions

SOURCE: National Drought Mitigation Center (2021).

Local Initiatives

In addition to regulations and planning efforts that work to conserve water at the state level, the City provides water conservation and water pollution prevention guidelines through development of programs for carpet cleaning activities, food service facilities and operations, stormwater discharge activities, and car washes. The Irwindale Municipal Code, which includes the Green Building Code, contains requirements for water-efficient and drought-resistant landscaping and plant materials and automatic drip irrigation systems. The City has also adopted the state Model Water Efficient Landscape Ordinance guidelines to promote water savings through efficient landscaping.

The City also provides information on its website for water conservation and water pollution prevention for residents, and promotes the following best practices:

- Avoid water runoff and overwatering of lawns.
- Follow watering days as set by the water districts.
- Install high-efficiency sprinkler nozzles.
- Consider installing weather-based irrigation controllers.
- Plant drought-tolerant landscaping to reduce water needs and ensure water efficiency.
- Use synthetic turf or irrigation-less ground cover that helps eliminate yard water needs.
- Clean driveways by sweeping instead of hosing.

- Use shut-off nozzles on hoses.
- Use biodegradable, phosphate-free detergents and non-toxic cleaning products when washing vehicles.
- If possible, wash cars on a permeable surface where wash water can percolate into the ground (e.g., gravel or grassy areas).
- Contact the City prior to draining.

Key Findings Related to Drought

- The city relies on local groundwater and surface water sources, including water from the State Water Project and the Colorado River.
- As a member of the Upper San Gabriel Valley MWD, the City of Irwindale receives water purchased from the Metropolitan Water District of Southern California through several public and private water purveyors. Irwindale is considered to be in Extreme Drought conditions.
- As of 2021, the State of California has implemented statewide regulations and special projects in response to drought conditions. These types of regulations work to effectively manage water resources under drought conditions and ensure community health and safety as a result.
- Although the City engages in local outreach and engagement efforts to educate the community about preserving and protecting water resources, the City should consider greater emphasis on local interventions, as these types of programs are limited in scope.

Community Feedback

- Drought was identified as a primary hazard of concern for residents in Irwindale, but was behind crime, poor air quality, and pandemic in order of priority.

Extreme Weather

Introduction

Global warming temperatures from climate change are causing shifts in weather patterns and conditions that are expected to worsen over time, resulting in **extreme weather**. Climate change will cause these extreme weather conditions to intensify and become more extreme, with some climate conditions occurring more often and lasting for longer periods of time. Human populations and the built environment are not used to experiencing extreme weather conditions, so it will be necessary to address adaptation and resiliency to climate change.

Local Conditions

Weather in Irwindale is characterized by a Mediterranean and semi-arid climate, with mild winters and hot, dry summers. The climate is expected to be warm; however, increases in global average temperatures will result in hotter temperatures that can become dangerous to human health and the environment. **Figure SAF-7** shows how increasing average temperatures will shift and result in hotter weather over time, with colder weather events becoming less frequent. Southern California is heating up faster than other regions of the state and country, making extreme heat one of the greatest climate change threats to the City of Irwindale.

EXTREME TEMPERATURES

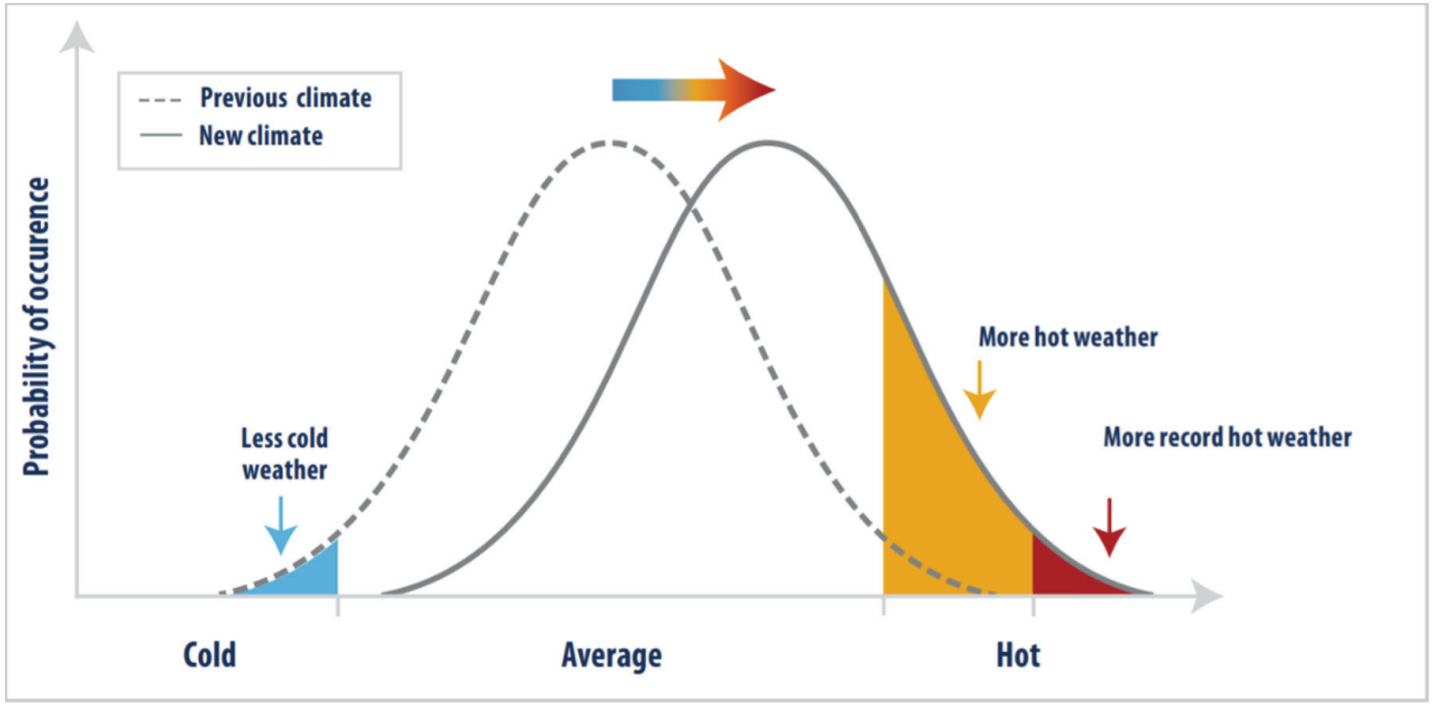
Extreme heat days are defined as days when daily maximum temperatures rise above a threshold temperature of 101.3 degrees Fahrenheit (°F) and persist over a period of time, from a couple of days to weeks or months (Cal-Adapt 2018). Historically, the maximum average temperature in Irwindale is 79°F; this maximum is expected to increase up to 91°F by 2100 (Cal-Adapt 2018).[3]

Increasing temperatures will make extreme heat events and heat waves more common and they will occur with greater intensity, frequency, and for longer durations. Historically, the City of Irwindale has experienced an average of 4 extreme heat days per year. This is expected to increase up to 97 by 2100 (Cal-Adapt 2018).

Extreme weather refers to highly unusual climate conditions and events that are significantly different from those previously recorded in history. This includes conditions such as extreme heat, precipitation or rainfall, and windstorms.

Extreme weather

[3] Future extreme weather levels assume a high emissions scenario (RCP 8.5).



SOURCE: USEPA 2022

FIGURE SAF-7 **Extreme Weather Chart**

Compared to other regions, Los Angeles County is among the fastest warming counties in the country. In addition to increased average temperatures, Los Angeles County will also likely experience increased duration of heat days, higher levels in humidity, and increased risk of heat-related illnesses.

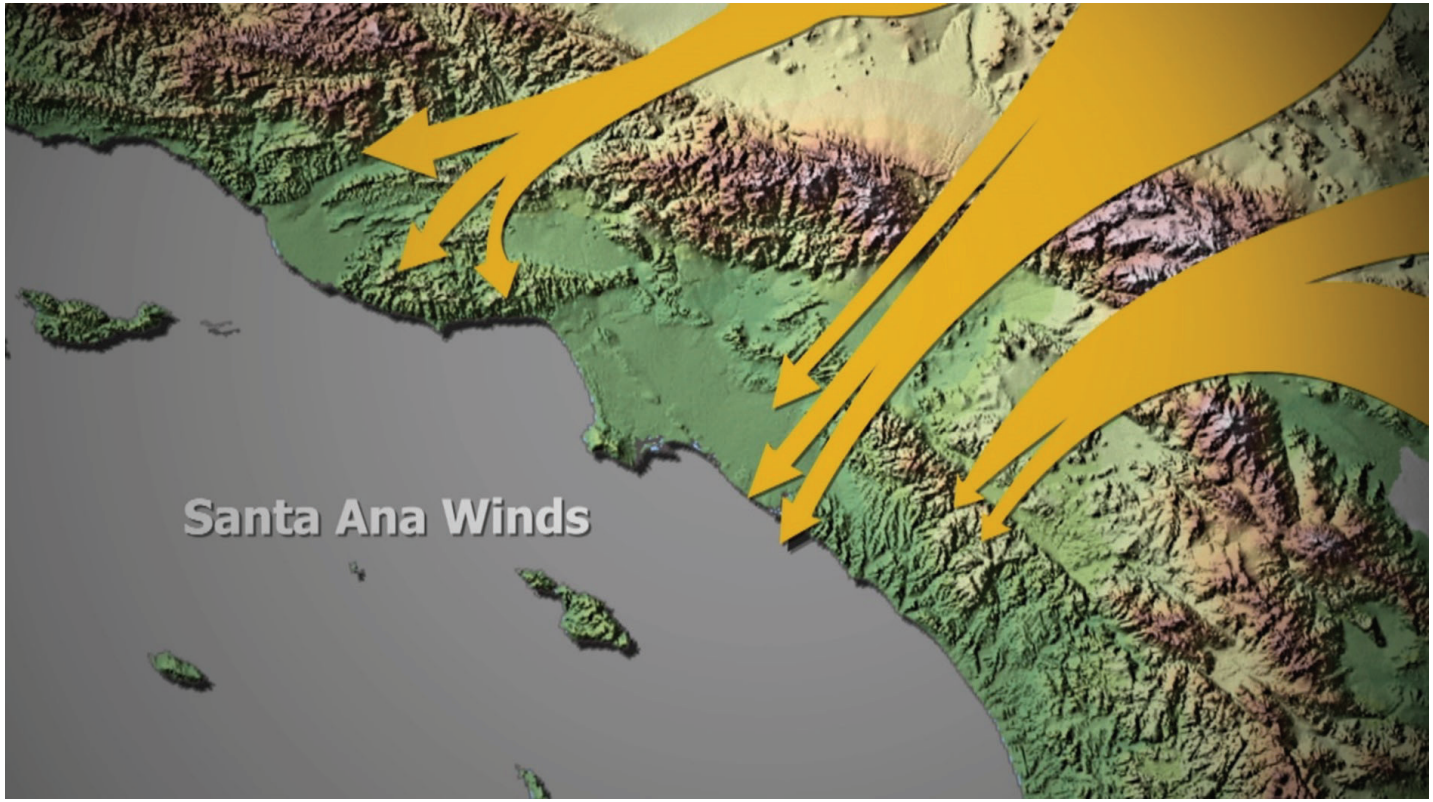
This shift in temperatures also means there is greater likelihood of worsening **dry spells**, which are periods of dry weather with no precipitation (Cal-Adapt 2021). Dry spells are expected to increase from a historic average of 130 days up to 179 days. However, rainfall events that do occur are expected to have greater intensity, with more rainfall in shorter periods of time. Annual precipitation levels are expected to increase from a historic average of 19 inches up to 27 inches by 2100.

WINDSTORMS

Windstorms are another extreme weather event that poses significant risk to people and the environment in Irwindale, and they are expected to increase in frequency and severity due to climate change. **Windstorms** are storms characterized by high winds or violent gusts that can be strong enough to damage trees and buildings, and disrupt essential systems, including public utilities and transportation corridors.

The high winds seen in windstorms are caused by air moving from an area of high pressure to an area of low pressure. High winds have destructive impacts, especially to trees, power lines, and utility services, and also have the potential to cause tornado-like damage to properties, including homes and businesses. Of the most severe are **damaging winds**, classified as those exceeding 58 miles per hour (mph) and accounting for half of all severe weather reports in the contiguous United States (NOAA 2020).

The Santa Ana Winds are the most common wind conditions that affect Irwindale, with winds greater than 29 mph. These are warm, dry winds that blow from the east or northeast in the Santa Ana Canyon with exceptional speed. **Figure SAF-8** shows the direction of the Santa Ana Winds. The Santa Ana Winds most commonly occur between September through May, with the greatest frequency of winds in December.



SOURCE: USGS 2021

FIGURE SAF-8 **Santa Ana Winds**

Local Vulnerabilities

All people and the environment are at risk from extreme temperatures and windstorms, with the greatest hazard coming from extreme heat. Extreme heat is the cause of more annual deaths across the United States than other weather hazards, including floods, storms, and lightning combined (Bedsworth 2018). This is due to high numbers of **heat-related illnesses**, including heat exhaustion and heat stroke, which can worsen existing health conditions such as asthma, heart disease, and respiratory illnesses. In severe cases, such as heat stroke, heat events can lead to mental status changes, confusion, coma, and death.

Populations living within urban heat islands, such as Los Angeles County, are at higher risk of prolonged exposure to heat conditions. Extreme heat impacts will disproportionally affect minority and low-income communities, as these groups are more likely to live in areas with aging infrastructure, limited resources and funding, limited parks and tree canopy, and heat-retaining surfaces that contribute to the heat-island effect. There is greater risk to elderly populations, infants and children, unhoused individuals, and outdoor workers, as well as individuals who are unable to access health care or cooling amenities or afford increases in energy costs and water usage associated with cooling.

Higher temperatures can contribute to increases in harmful air pollutants, thereby exacerbating health conditions for some individuals.

Extreme heat can also impact economies and job sectors, particularly health care industries and government operations that are critical to emergency response. These industries are likely to experience increased pressure from heat-related illnesses in the community. The tourism industry in Southern California will also likely be impacted. This may include the Santa Fe Recreational Dam Area in Irwindale, as well as other natural trails and open space amenities that experience plant and biodiversity impacts from extreme heat.

Local and regional energy demand will also likely increase as communities seek cooling relief. Extreme heat can reduce the ability of the grid to transmit electricity, and this can be further compounded by energy spikes during heat waves (SCAG 2020).

Extreme heat and windstorms also provide suitable conditions for wildfire events to occur more easily and last longer. Regional fires can affect air quality and temperatures for Irwindale and surrounding communities, putting those with

Heat exhaustion is an imbalance of electrolytes caused by body dehydration that can lead to headache, dizziness, nausea, pale skin, cramps, weakness, and profuse perspiration.

Heat stroke is a severe and life-threatening medical emergency that results from the body's inability to cool down from a high temperature. Heat stroke symptoms are similar to those of heat exhaustion except that there is no perspiration; additional symptoms include rapid pulse, hot and dry skin, changes in mental state, seizures, loss of consciousness, and kidney failure. Heat stroke can lead to death if not treated promptly.

SOURCE: California Governor's OES 2018

Heat-Related Illnesses

existing health conditions at greater risk. Increased temperatures can also worsen drought conditions, affecting plants, agriculture, and wildlife.

See the Safety Element – Wildfire section for additional information on fire hazards and the Environmental Justice Element – Public Facilities section for additional information on community facilities and resources to help provide relief from extreme heat.

Local Initiatives

CITY OF IRWINDALE

As with many climate events, extreme temperatures and windstorms can generally be anticipated and prepared for in advance. The City of Irwindale relies on the Irwindale Police Department to provide public safety services and alerts, including for weather hazards, and on the community development department for planning initiatives that address hazards. These include:

- **The Local Global Warming Initiative.** This program is implemented through the city's Local Hazard Mitigation Plan and the Irwindale Police Department to identify households at risk from extreme heat. Police department personnel aid elderly individuals during extreme heat days when temperatures rise above 90°F. Police department personnel check in on seniors and encourage the use of the Senior Center as a cooling center.
- **City Outreach.** The City will initiate an outreach effort at the community/senior center that will provide information regarding the risk and resources that are available in upgrading units and assisting in the payment of utility bills.
- **CivicReady.** The City delivers critical and timely information to community members, including emergency alerts and notifications on public safety delivered from the Irwindale Police Department through the internet, email, text messages, and phone calls.
- **Irwindale Police Department Coordination.** During high heat events, the Irwindale Police Department conducts visits to residents who are at risk of heat related health complications. The Police department coordinates with these at-risk individuals to ensure that they have access to cooling centers.

LOCAL HAZARD MITIGATION PLAN

The city's 2014 Local Hazard Mitigation Plan addresses extreme heat through mitigation strategies to reduce the community's vulnerability to increasing temperatures:

- **Local Mitigation Action #16 – NOAA Weather Radio.** The City will encourage the use of National Oceanic and Atmospheric Administration (NOAA) weather radios among its residents. At least one set of counties surrounding a chemical stockpile has provided NOAA weather radios to all homes and businesses within the area. NOAA Weather Radio continuously broadcasts National Weather Service forecasts, warnings, and other crucial weather information. NOAA Weather Radio also provides direct warnings to the public for natural, man-made, or technological hazards, and it is the primary trigger for activating our country's Emergency Alert System on commercial radio, television, and cable systems.

Key Findings Related to Extreme Weather

- Extreme heat is one of the greatest climate change threats to people, places, and the environment and is among the deadliest natural hazards.
- Climate change will increase average temperatures in Irwindale, resulting in a new "normal" of longer and hotter days.
- Average temperatures are expected to increase by 12°F, from a historic 79°F up to 91°F by 2100.
- Length of dry spells are expected to increase, from 130 days up to 179 days by 2100.
- Rainfall events are expected to be shorter and occur less frequently, though with more severity. Annual precipitation levels increasing from 19 inches up to 27 inches by 2100.
- Climate change will increase the frequency and severity of windstorms, with winds expected over 29 mph that can impact people, property, and public infrastructure.
- High winds are expected from September through May.
- Heat-related illnesses are expected to increase (heat stroke, heat exhaustion).
- All persons are vulnerable to extreme heat; however, some groups are more likely to

experience disproportionate impacts than others; this includes households without air conditioning or proper insulation, and individuals living in areas where there is less urban greening. Vulnerable populations include seniors, children, unhoused, low-income, outdoor workers, uninsured, and individuals with existing health conditions.

- Lack of tree canopy, access to parks, access to cooling centers, and lack of air conditioning at home increases vulnerability to heat impacts.
- Increasing severity of extreme temperatures puts pressure on critical response systems, including health care and government sectors.
- Recreation areas, including the Santa Fe Recreational Dam Area, are expected to have reduced visitors in the future, and see impacts to local plants and animals.
- Energy demand and costs are expected to increase, especially during heat waves.
- Extreme heat and windstorms can worsen fire conditions and air quality.
- The city has existing programs and policies through the Irwindale Police Department and Irwindale Community Development Department that help address extreme temperatures.

Community Feedback

The City of Irwindale conducted a community survey to identify priorities and concerns relating to safety in the community. These survey results are summarized below and represent a sample of the population:

- Approximately 12 percent of residents identified extreme heat and windstorms as primary hazards of concern. This is low compared to other climate/environmental hazards (53 percent for air quality; 35 percent for drought; 18 percent for fire, and 12 percent for flooding).
- Approximately 24 percent of employees identified extreme heat as a hazard and 10 percent identified windstorm as a hazard. (Employees identified air quality as the top hazard of concern, at 45 percent).
- Irwindale employees identified extreme heat as a principal health concern.
- Employees suggested increasing trees and green infrastructure in the city to help reduce the urban heat island effect.

Flooding

Introduction

Flooding typically occurs as a result of heavy, intense precipitation events that create water flows large enough to overtop natural waterways or exceed the capacity of stormwater infrastructure. Flood-prone areas generally include river floodplains, areas adjacent to drainage systems, low-lying areas where stormwater can collect, and areas with inadequate storm drain infrastructure or large amounts of impermeable surface. Climate change will likely worsen inland flooding due to changes in precipitation patterns. Periods of concentrated, intense precipitation "will worsen inland flooding, especially in highly urbanized areas."

Local Conditions

As shown in **Figure SAF-9**, the city is not in a designated flood hazard zone. There are no 100-year floodplains or 500-year floodplains within the city. There is a 500-year flood zone adjacent to the city to the south, near West Covina.

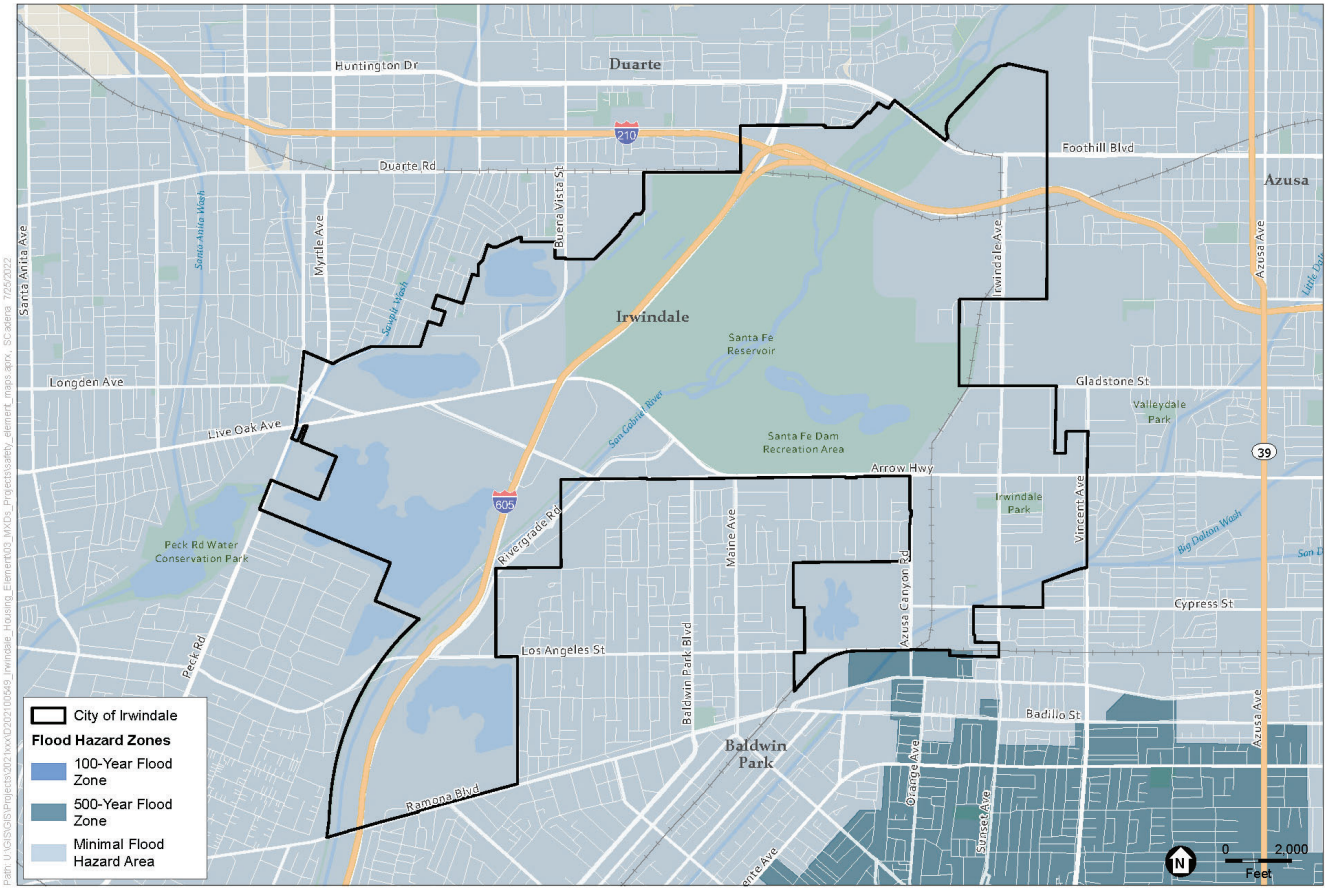
The City of Irwindale is at risk of one type of inland flooding, which would be dam failure flooding as defined below.

Dam Failure Flooding. Dams can fail because of a number of reasons, including overtopping due to flooding, structural failure of materials used in dam construction, poor maintenance, and failure of upstream dams, among others. Flooding from dam failure is typically far more severe as residents have little warning time, and the volume of water can lead to swift, severe flooding with a catastrophic loss of life and property.

DAMS IN THE CITY OF IRWINDALE

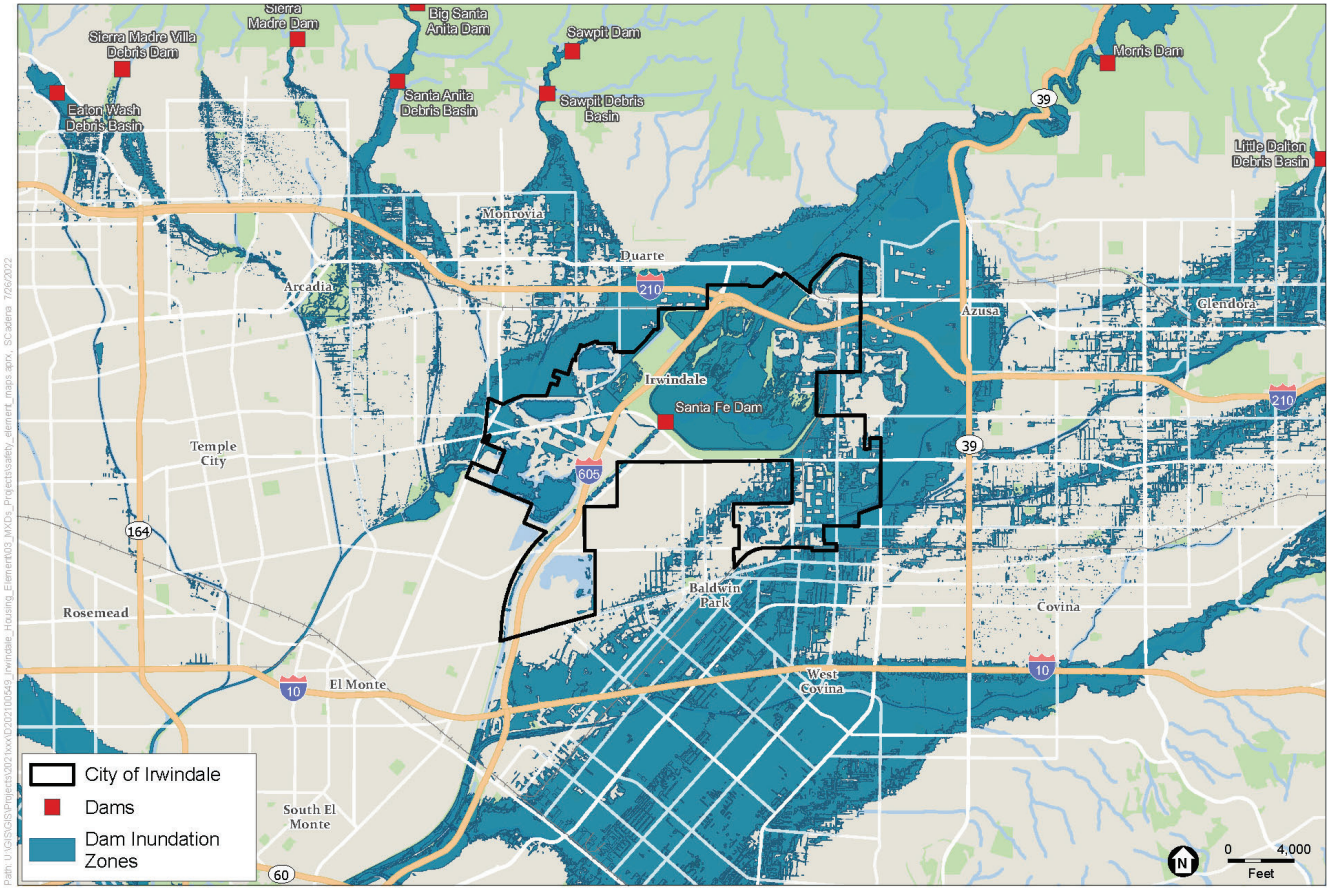
Within the City of Irwindale, there is one major dam, the Santa Fe Dam and Reservoir. Built in 1949, the Santa Fe Dam is located on the San Gabriel River about 4 miles downstream from the San Gabriel Canyon. The dam is a component of the Los Angeles County Drainage Area flood control system, and the primary purpose of the dam is to reduce the risk of flood damage for areas downstream of the dam. The dam area also includes approximately 835 acres that were granted to Los Angeles County for recreational use.

The expected inundation area in the event of dam failure is shown in **Figure SAF-10**. In the event of a dam failure, water would likely flow in a southwesterly direction and inundate the area



SOURCE: FEMA 2022; ESRI 2022; ESA 2022

FIGURE SAF-9 **Flood Hazard Zones**



SOURCE: USDOT BTS 2022; DWR DSOD 2022; ESRI 2022; ESA 2022

FIGURE SAF-10 **Dam Inundation Zones**

Santa Fe Dam in Irwindale, CA

west of Irwindale Avenue, which includes commercial and residential properties in the city, as well as the southwestern portion of the city, which includes primarily commercial and industrial land uses, mining pits, and a small amount of residential land uses.

Local Vulnerabilities: Surface Flooding

Potential vulnerabilities to flooding include population, property, and infrastructure. Low-lying populations and infrastructure, such as roads, are especially vulnerable to flood hazards and serve critical access functions for residents and emergency responders.

POPULATION

In general, flooding can impact communities by resulting in injury or death, or isolating individuals or families and cutting them off from essential services. Property damage from flooding can be particularly burdensome for low-income families or renters who may face challenges rebuilding following a flood event. Flooding also has the potential to result in mold in buildings, which can result in long-term health impacts following flooding.

Employees working in Irwindale are also vulnerable to flooding and may encounter transportation and evacuation challenges in the event of flooding related to dam failure. Flooding may result in economic impacts within the city if commercial or industrial properties are inundated, resulting in interruptions to employment and businesses.

Local Vulnerabilities: Dam Failure

In the event of dam failure, vulnerable populations include populations downstream from dam failures that are incapable of escaping the area within the allowable time frame. The entire population in a dam failure inundation zone is exposed to the risk of a dam failure. Within the City of Irwindale, preliminary investigation suggests that residential areas west of Irwindale Avenue and south of Arrow Highway; residential areas along Calle Burolla, Fraijo Avenue, and Nora Avenue; and residential areas on the western edge of the city south of Meridian Street may be vulnerable to inundation in the event of dam failure. Populations that are particularly vulnerable to the impacts of flooding are those who may be less mobile and may be unable to get out of the inundation area. These populations include the elderly, the young, and individuals or families who may not receive adequate warning from warning systems, televisions, radios, reverse 911 systems, or cell phones.

VULNERABLE DEVELOPMENT, CRITICAL FACILITIES, AND INFRASTRUCTURE

According to the California Governor's Office of Planning and Research Guidelines, critical facilities are facilities that either (1) provide emergency services or (2) house or serve many people who would be injured or killed in case of disaster damage to the facility. Examples include hospitals, fire stations, police or emergency service facilities, utilities, or communications facilities. Low-lying areas are vulnerable to dam failure inundation, especially transportation routes. In the City of Irwindale, this includes all roads, railroads, and bridges in the flow path of water. In the event of a flood, transportation assets such as emergency evacuation routes, routes used by emergency responders, and public transportation may experience delays in emergency response that may impact the ability of residents to evacuate in the event of flooding. Utilities such as the stormwater drainage system and the wastewater system may be compromised by the increase in discharges to these systems.

Additionally, as dams are built to protect communities from flooding, buildings located in the dam inundation area are often not built to withstand flooding. All critical infrastructure and facilities in the dam inundation zone are vulnerable to inundation. This includes the fire station on East Arrow Highway. Critical facilities such as emergency response facilities, emergency shelters, hospitals, and utilities may be vulnerable to flooding if located below grade or in the dam inundation area and may lose function if located below grade.

Local Initiatives

Flood risk within the city is managed between the City of Irwindale Public Services Department, Los Angeles County Flood Control District (LACFCD), and US Army Corps of Engineers (USACE). In addition, the Public Works/Engineering (PWE) Department has the sole responsibility of dedicating resources to stormwater management. Lastly, the City utilizes a civic alert system to alert residents to flood risk.

With respect to stormwater management efforts in the city looking forward, the PWE Department is planning to perform a storm drain master plan study in 2022–2023 to look for deficiencies in the storm drain infrastructure.

Key Findings Related to Flooding Hazards

- The City of Irwindale is not in a designated flood hazard zone. However, risk related to failure of the nearby Santa Fe Dam is high.
- In the event of a dam failure, the areas most susceptible to flooding hazards would be those west of Irwindale Avenue, south of Arrow Highway; residential areas along Calle Burolla, Fraijo Avenue, and Nora Avenue; and residential areas on the western edge of the city south of Meridian Street, as shown in Figure SAF-10. Land uses in these areas include primarily commercial and industrial land uses, mining pits, and a small amount of residential land use.
- Flood risk within the City of Irwindale is managed between the City of Irwindale Public Services Department, LACFCD, and USACE. In addition, the Public Works/Engineering Department has the sole responsibility of dedicating resources to stormwater management and is planning to perform a storm drain master plan study in 2022–2023 to identify deficiencies in the storm drain infrastructure.

Community Feedback

- The City released a community survey to elicit input on topics related to environmental hazards to get a better understanding of how we can improve safety in the City of Irwindale. 12% of residents and 3% of employees cited flooding as a hazard of concern.

Geologic and Seismic Hazards

Introduction

Geologic hazards are those effects associated with earthquakes. An earthquake is the shaking of the ground caused by an abrupt shift of rock along a crack in the earth or a contact zone between tectonic plates.

Earthquakes represent a major concern for all cities in Southern California, including the City of Irwindale. The city is located in a seismically active region and is subject to the potential risks typically associated with earthquakes, such as ground shaking, landslides, and dam failure, among others. The effects of an earthquake may take many forms, depending on a number of factors, including distance from the epicenter, type of soil, groundwater, and forms and features of land surface or topography.

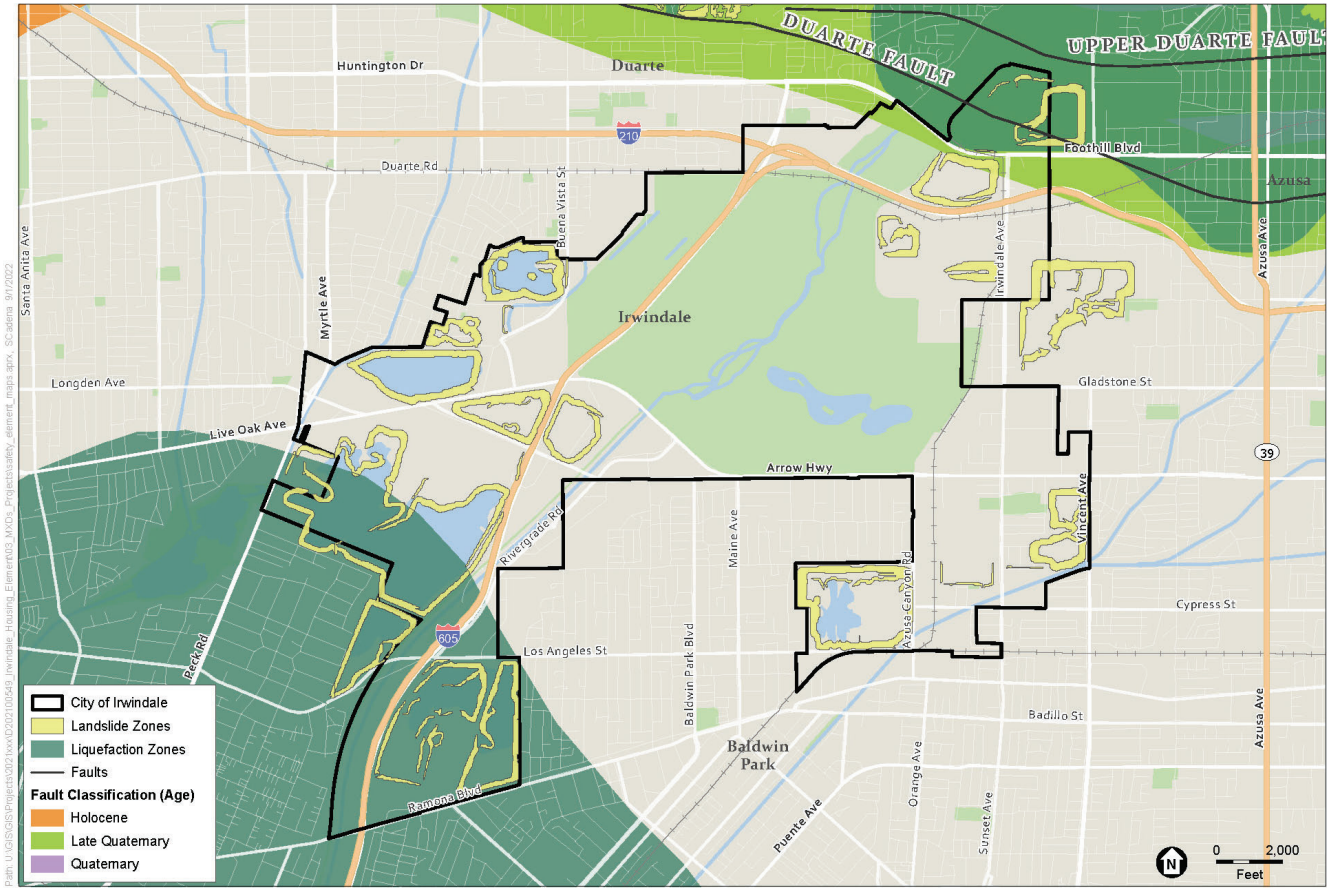
Local Conditions

The primary geologic hazards for Irwindale are identified in this section. The city is at risk for surface rupture, ground shaking, landslides, and liquefaction. **Figure SAF-11** shows the fault, liquefaction, and landslide zones within the city. Major faults near the city include the Duarte and San Andreas Faults.

The Duarte Fault is located within the City of Irwindale and is a component of the larger Sierra Madre fault zone. The Sierra Madre fault is located approximately 2 miles north of the City of Irwindale along the southern foothills of the San Gabriel Mountains. The San Andreas Fault system, located approximately 31 miles north of the city, is more than 800 miles long.

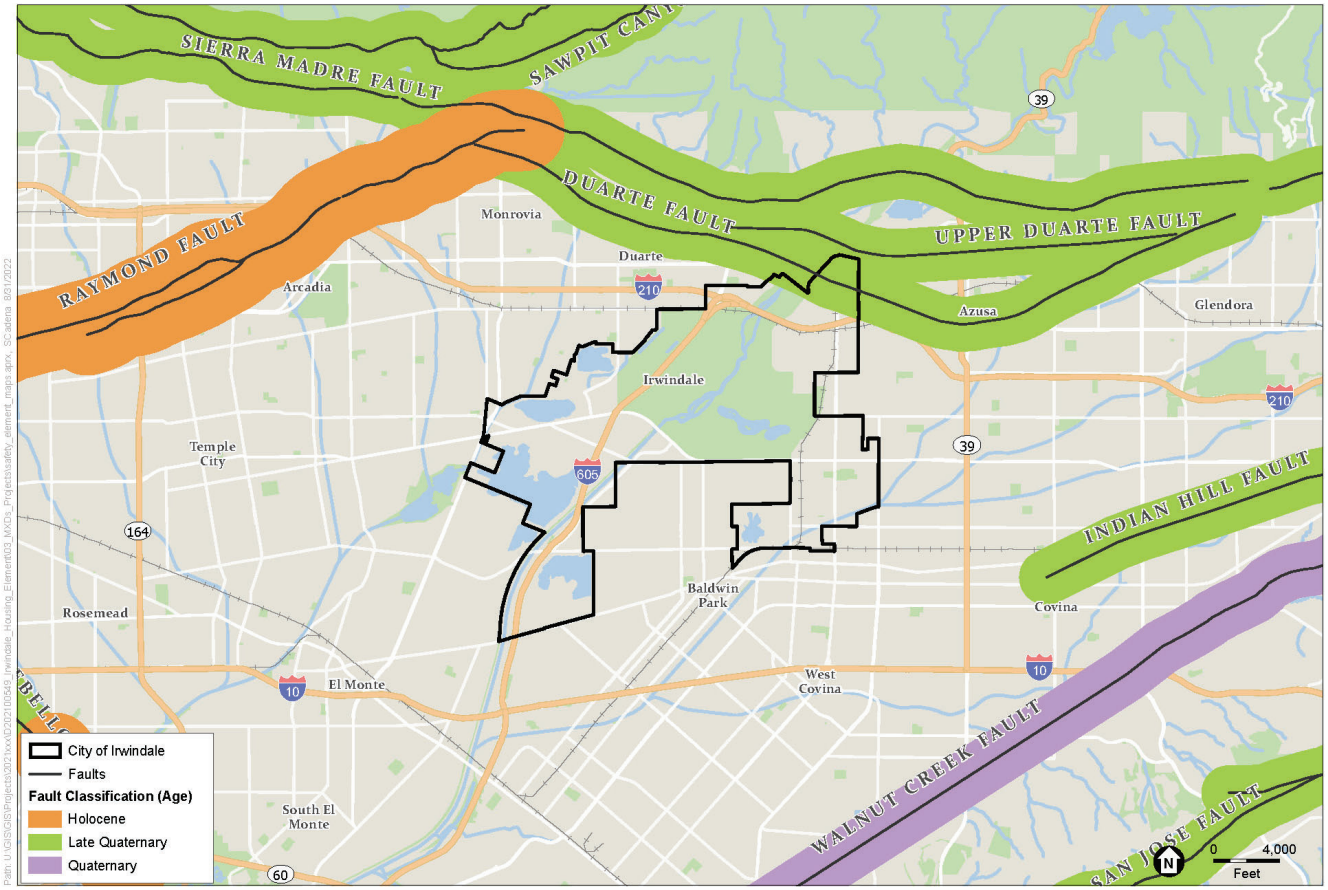
Surface Rupture

Fault rupture refers to the actual ground surface tearing apart as a result of an earthquake, which typically occurs along a fault trace line. A fault trace line is the line where the ground surface meets a fault, which is also the line commonly plotted on geologic maps to represent a fault. **Figure SAF-12** shows fault zones proximate to the city. The closest faults include the Duarte Fault located within the northeast corner of the city, the Sierra Madre Fault approximately 2 miles to the north, and the Clamshell-Sawpit Fault 3 miles to the west. The Duarte Fault is a component of the larger Sierra Madre Fault zone. A buried segment of the active Duarte Fault is known to cross the southwestern corner of the Reliance I pit, continuing along Foothill Boulevard to the east. Major active faults near Irwindale that



SOURCE: CalGEM 2022; DOC 2022; ESRI 2022; ESA 2022

FIGURE SAF-11 **Geologic and Seismic Hazards**



SOURCE: DOC 2022; ESRI 2022; ESA 2022

FIGURE SAF-12 **Earthquake Faults**

pose a risk to the city's existing or future structures include Duarte; Sierra Madre; Clamshell-Sawpit; Northridge; Elysian Park Zone; San Andreas; Newport-Inglewood; Whittier-Elsinore; and Raymond Hill.

Ground Shaking

Ground shaking causes the most damage (it is the primary cause of collapsed buildings) and has the potential for the greatest loss of life. Ground shaking can cause movement of soils and disruption of foundation leading to liquefaction and seismic settlement. Liquefaction is often responsible for damage to bridges, buildings, buried pipes, and underground storage tanks. Seismic settlement is when soil is compacted in response to ground shaking. The entire City of Irwindale is at risk for ground shaking during an earthquake with concentration surrounding existing mines and areas closest to active faults, which are located in the northeast and southwest corners of the city.

Landslides

Areas with the potential for earthquake-induced landslides generally occur in areas of previous landslide movement, or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Areas considered to have potential for earthquake-induced landslides are shown in Figure SAF-11. The areas shown in the figure indicating the landslide potential zones within the city were compiled from the California Department of Conservation.

City areas at greatest risk for earthquake-induced landslides include the steep slopes typically found within the mining pits. The city is historically known for its mining activity. It currently has 17 mines and has had 19 recorded mines in its history. There are six active mines, and four pit mines have been reclaimed. Of the seven remaining mines, two are idle pits, one is under reclamation with potential plans for redevelopment, and the other four are and will remain inactive with no plans for future development.

Liquefaction

Liquefaction generally occurs during significant earthquake activity, and structures located on soils such as silt or sand may experience significant damage during an earthquake due to the instability of structural foundations and the moving earth. Many communities in Southern California are built on ancient river bottoms and have sandy soil. In some cases, this ground may be subject to liquefaction, depending on the depth of the water table. Buildings and their occupants are at risk when the ground can no longer support these structures. The California Department of Conservation has evaluated liquefaction susceptibility for most of the City of Irwindale area. The southwestern corner of the city is identified as having a potential for liquefaction, as shown in Figure SAF-11 above.

Local Vulnerabilities

Earthquakes are a considerable threat to life and property in the City of Irwindale. All people, property, and environments in the city would be exposed to direct and indirect impacts from earthquakes.

A moderate to severe seismic incident on any fault zone proximate to the city is expected to cause any of the following:

- Injury and loss of life
- Commercial and residential structural damage
- Disruption of and damage to public utilities and services
- Damage to transportation routes, resulting in loss of mobility
- Loss of communications
- Negative impact on commercial and residential property values
- Economic impact

According to the city's Local Hazard Mitigation Plan, the major form of direct damage from most earthquakes is damage to construction. Bridges are particularly vulnerable to collapse, and dam and water tank failure may generate major downstream flooding. Buildings vary in susceptibility, depending on construction and the types of soils on which they are built. Earthquakes can destroy power and telephone lines, as well as gas, sewer, and water mains, which in turn may set off fires and/or hinder firefighting or rescue efforts.

The *Emergency Support Function* concept was developed by FEMA in the late 1980s to address the potential management concerns that would be necessary to coordinate a federal response to a catastrophic earthquake in California.

Emergency Support Function

In the event of an earthquake, extensive federal assistance may be required and may continue for an extended period. Efforts may be required to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities, and provide continuing care and welfare for the affected population, including temporary housing for displaced persons.

Emergency medical care, food, and temporary shelter may be required for injured or displaced persons. Emergency operations could be seriously hampered by the loss of communications and damage to transportation routes within, and to and from, the disaster area as well as by the disruption of public utilities and services. The economic impact on the city from a major earthquake would be considerable in terms of loss of employment and loss of tax base. The loss of communications through power outages could seriously disrupt the operations of banks, insurance companies, and other elements of the financial community. In turn, this could affect the ability of local government, businesses, and the population to make payments and purchases.

Local Initiatives

The City of Irwindale uses local programs such as the **CivicReady** service and the **Emergency Support Function** (ESF) to address earthquake hazards. CivicReady is used to deliver important and timely information, including emergency messages and alerts, at no cost to the community. The CivicReady service delivers trustworthy and important public safety and community event notifications directly from the Irwindale Police Department via internet, email, text messages, and voice calls. This service could be used as a warning system during an earthquake event. Seconds and minutes of advance warning can allow people and systems to take actions to protect life and property from destructive shaking. Even a few seconds of warning can enable protective actions such as:

- Citizens can drop, cover, and hold on; turn off stoves; safely stop vehicles.
- Business personnel can move to safe locations, automated systems ensure that elevator doors open, production lines are shut down, and sensitive equipment is placed in a safe mode.
- Medical, healthcare facilitators, dentists, and others can halt delicate procedures.

- Emergency responders such as fire departments can open firehouse doors, and have personnel prepare immediate response.
- Power lines and electrical facilities can be protected from strong seismic shaking.

To address years of mining, the City has adopted regulations in accordance with the Surface Mining and Reclamation Act (SMARA) of 1975 that govern mining, remediation, and reclamation. These regulations, along with City adopted Reclamation Plans address the operational timeline of the 17 pits. These plans ensure proper handling of the slopes, mining depths, runoff, and environmental impacts and the filling and ultimate development of the site.

According to the city's Emergency Operations Plan (EOP), when a threat or potential threat is first detected, the city Emergency Operations Center (EOC) is activated to a level appropriate to the magnitude of the event. The City's response effort is then initiated through the City Emergency Organization, which comprises designated ESF Coordinators from tasked city departments, non-governmental organizations, and volunteer organizations. The City must be prepared to respond quickly and effectively on a 24-hour basis to developing emergency events, such as earthquakes. These ESF Coordinators are authorized to deploy the resources of their respective department or organization to carry out response and recovery missions that are assigned in the EOP including keeping an activity log in the event of an earthquake in order to anticipate potential situation changes, such as severe aftershocks. In the event of an earthquake, ESF Coordinators will provide guidance regarding actions to be taken in preparation for aftershocks.

The City also encourages residents and businesses to be prepared for an earthquake or other natural or major disaster by providing education and awareness on the **Emergency Preparedness** webpage (https://www.irwindaleca.gov/118/Emergency-Preparedness). The City recommends that everyone be prepared to provide for their care and safety before and after an earthquake event through proper planning and preparedness. The Emergency Preparedness webpage includes a link to download an earthquake preparedness flyer from the Los Angeles County Fire Department (LACoFD) as well as links to local, state, and federal emergency preparedness

Key Findings Related to Geologic and Seismic Hazards

- Ground shaking levels are higher on the northeastern and southwestern fringes of the city.
- A buried segment of the active Duarte fault is known to cross the southwestern corner of the Reliance I pit.
- Landslide risk is high around the unfilled mining pits located in the city.
- Liquefaction zones are located in the northeastern and southwestern corners of the city. Building and road foundations may lose strength and sink into what was previously solid ground.
- Outdated infrastructure and building damage could result in mold and lead exposure as a result of an earthquake event.
- Transportation problems, such as roadways blocked by debris, unsafe structures, and damaged routes.
- Employees working in the city could be stranded if transportation problems occur during an earthquake event.
- Earthquakes could trigger other natural hazard events, such as dam failures, which could severely impact the city considering the Santa Fe Dam.
- Hazardous materials can be released during an earthquake event, causing significant damage to the environment and people.

Community Feedback

The City released a community survey to both residents and employees of Irwindale to obtain input on topics related to community hazards, pollution, hazardous materials, and air quality to get a better understanding of how the City can improve safety in Irwindale. There was no community input from the survey that related to geologic hazards. However, at a community workshop, residents expressed a concern for outdated housing and infrastructure, which would present a risk of exposing lead and/or mold during or after an earthquake event.

Hazardous Materials

Introduction

Hazardous material is generally defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or future hazard to human health and safety or to the environment if released. Hazardous materials are found throughout any urban environment in businesses and homes. Industrial businesses use or process potentially hazardous materials and/or hazardous wastes, whereas homeowners often store hazardous materials, including used batteries, car oil, pesticides, cleaners, and paint, all of which are potentially hazardous.

The use of hazardous products in households, businesses, and construction activities is common. However, the amount, concentration, and/or types of these products are often not significant enough to pose a substantial risk to human health and safety or to the environment. As such, these are often referred to as household hazardous wastes, universal waste, and electronic waste.

Local Conditions

There are 61 documented hazardous material sites listed within the city that are active or being remediated (SWRCB, EPA, DTSC 2023). **Table SAF-4** identifies **registered hazardous waste generators** and handlers in the city. Most, if not all, hazardous sites in Irwindale have been closed and cleaned, and remaining sites include hazardous material storage that properly and safely store per government regulation. **Figure SAF-13** identifies the approximate locations of the hazardous sites listed in Table SAF-4. These sites were identified by the U.S. Environmental Protection Agency (USEPA), California Department of Toxic Substances Control (DTSC), and the State Water Resources Control Board (SWRCB).

The USEPA prepared a **Toxic Release Inventory** (TRI), which is a database that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. Certain industrial facilities in the U.S. must report annually how much of each chemical is recycled, combusted for energy recovery, treated for destruction, and disposed of or otherwise released on- and off-site. The USEPA TRI lists approximately 16 sites in the City of Irwindale.

Hazardous waste facilities (courtesy of the County of Los Angeles Fire Department)

A registered hazardous waste generator is any person, by site, whose act or process produces hazardous waste that is subject to regulation.

SOURCE: California Department of Toxic Substances Control

What is a "registered hazardous waste generator"?

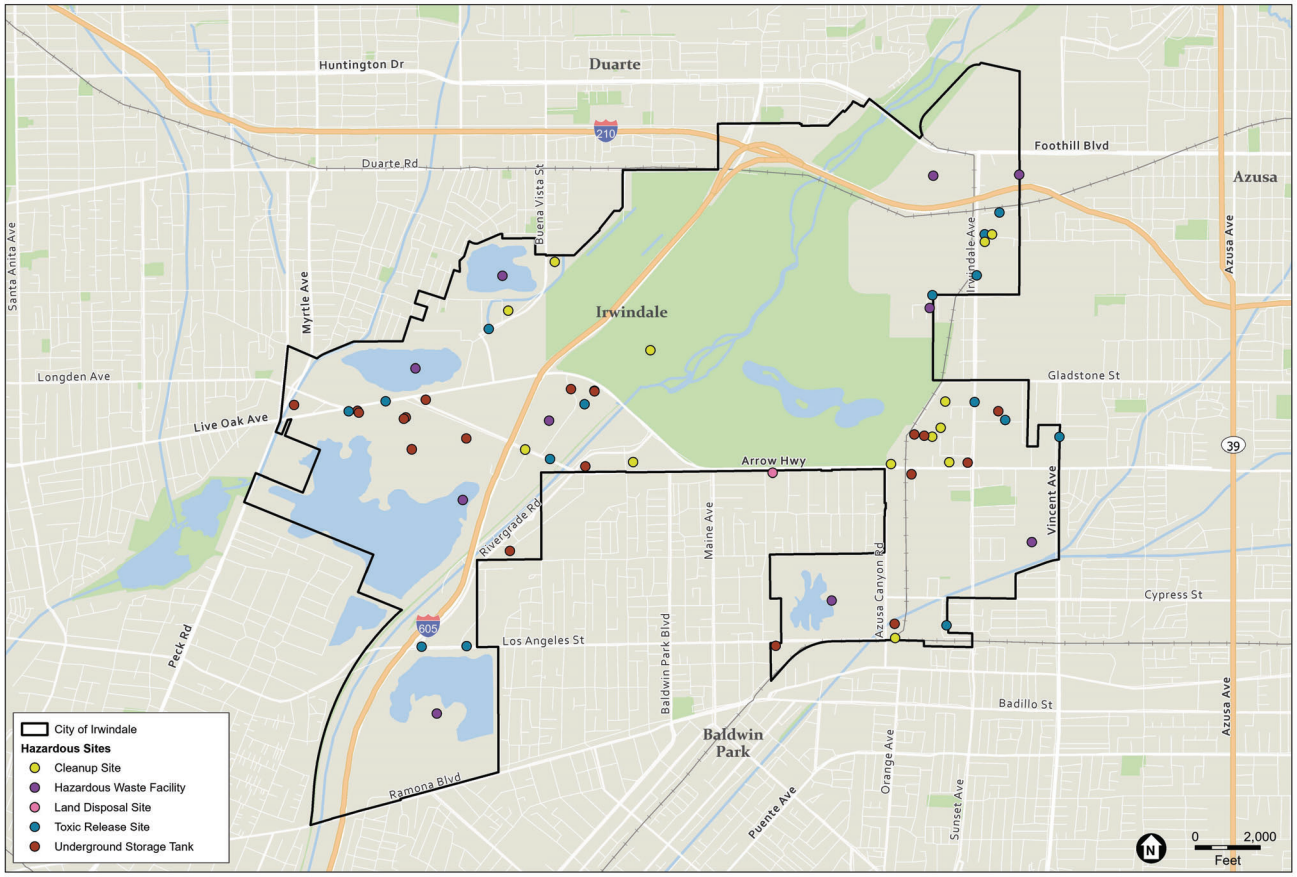
TABLE SAF-4 **Generators and/or Users of Hazardous Materials in Irwindale**

FACILITY NAME	ADDRESS	FACILITY TYPE	DATABASE
Agritech Int. dba CleanTech Environmental Inc.	5820 Martin Rd	Hazardous Waste Facility	EnviroStor
All American Asphalt	13646 Live Oak Ln	Toxic Release Site	USEPA TRI
Allied Diagnostic Imaging Resources	16018 Adelante St	Toxic Release Site	
Alpha II/Irwindale	2432–2536 Bateman Ave	Cleanup Site	EnviroStor
American Capacitor Corp	5367 Third St	Cleanup Site	GeoTracker
AP Propane	6226 Irwindale Ave	Cleanup Site	GeoTracker
ARCO #82167	16000 Foothill Blvd	Underground Storage Tank	GeoTracker
Arrow Field Service	1580 Arrow Highway	Underground Storage Tank	EnviroStor
Arrow Petrol Inc	15875 Arrow Hwy	Underground Storage Tank	GeoTracker
CalMart Irwindale Inert Landfill	4829 N. Irwindale Blvd	Land Disposal Site	GeoTracker
Cal Shake Inc	5355 North Vincent Ave	Toxic Release Site	GeoTracker
Calportland Co. Live Oak Plant	590 E Live Oak Ave	Toxic Release Site	USEPA TRI
CalPortland Company Baldwin Park Plant	13000 E Los Angeles St	Toxic Release Site	
CFS 123 Arrow Hwy	1200 Arrow Hwy	Underground Storage Tank	GeoTracker
CFS 126 Irwindale	600 E Live Oak Ave	Underground Storage Tank	EnviroStor
Calibre International LLC	16014 Adelante St	Cleanup Site	
City of Irwindale	2455 Buena Vista St	Cleanup Site	GeoTracker
Durbin Landfill	13000 Los Angeles St	Hazardous Waste Facility	GeoTracker
Durham School Services LP	15636 Cypress St	Underground Storage Tank	GeoTracker
ES Housewares Inc	14808 Los Angeles St	Underground Storage Case	GeoTracker
Flood Maintenance Longden Yard	160 Longden Ave	Underground Storage Tank	GeoTracker
Gentry Brothers Inc	384 Live Oak Ave	Underground Storage Tank	GeoTracker

FACILITY NAME	ADDRESS	FACILITY TYPE	DATABASE
Harrison/Nickols Gravel Yard	5265 4th St	Underground Storage Tank	GeoTracker
Holcomb Trucking Facility Former	14808 Los Angeles St	Underground Storage Tank	GeoTracker
Irwindale-Brew Yard (IBY LLC)	15801 E First St	Toxic Release Site	USEPA TRI
Ioptex Inc	15715 Arrow Hwy	Cleanup Site	GeoTracker
Irwindale Plant 13	13631 Live Oak Ave	Toxic Release Site	USEPA TRI
Irwindale Quarry Inert Landfill	13550 Live Oak Ave	Hazardous Waste Facility	GeoTracker
Irwindale Service Station	600 Live Oak Ave	Underground Storage Tank	GeoTracker
Irwindale Outlet Partners LLC	500 Speedway Dr	Underground Storage Tank	GeoTracker
Jasco Wood Products	15519 Arrow Hwy	Cleanup Site	GeoTracker
Kline's Kustom Heating & Air Inc	2320 Central Ave	Toxic Release Site	EnviroStor
Koll Business	14041 Live Oak Ave	Cleanup Site	GeoTracker
Livingston-Graham Inc.	13550 Live Oak Ave	Cleanup Site	GeoTracker
Manning Brothers Landfill/Manning Pit Sediment Placement	16158 Central St	Hazardous Waste Facility	GeoTracker
Matheson Tri Gas	16125 Ornelas St	Toxic Release Site	GeoTracker
National Ready Mix Concrete Co.	2620 Buena Vista St	Toxic Release Site	USEPA TRI
North Kincaid Pit	6570 N Irwindale Ave	Hazardous Waste Facility	GeoTracker
Nu-Way Industries	400 Live Oak E	Underground Storage Tank	GeoTracker
Nu-Way Live Oak Reclamation Landfill	13623 Live Oak Ave	Hazardous Waste Facility	GeoTracker
Old Dominion Freightline	600 Live Oak	Underground Storage Tank	GeoTracker
Olive Pit Inert Landfill	4407 Azusa Canyon Rd	Hazardous Waste Facility	GeoTracker
Pepsi Beverages Co.	4416 Azusa Canyon Rd	Underground Storage Tank	GeoTracker
Powers Lumber Co.	4407 Azusa Canyon Rd	Cleanup Site	GeoTracker
Ready Pac Produce Inc	4401 Foxdale Ave	Toxic Release Site	GeoTracker
Refrigerant Exchange	5263 4th Street	Cleanup Site	GeoTracker

FACILITY NAME	ADDRESS	FACILITY TYPE	DATABASE
Reliance Pit No 2 Landfill	15990 Foothill	Hazardous Waste Facility	GeoTracker
Rivergrade Service Station LP	5200 Rivergrade Rd	Underground Storage Tank	GeoTracker
Robertson's Ready Mix	13631 Live Oak Ln and 13623 Live Oak Ln Ave	Underground Storage Tank	GeoTracker
San Gabriel Valley Corp Campus	4900 Rivergrade Rd #A-110	Underground Storage Tank	GeoTracker
San Gabriel Valley Corp Campus	4920 Rivergrade Rd	Underground Storage Tank	GeoTracker
Southwest Products/Irwindale	2240 Buena Vista St	Cleanup Site	EnviroStor
Spot Not Auto Wash and Gas	15612 E Arrow Hwy	Underground Storage Tank	GeoTracker
Spragues Rock and Sand Company	230 Longden Ave	Underground Storage Tank	GeoTracker
The Davis Wire Co	5555 Irwindale Ave	Cleanup Site	EnviroStor
TWR Technar Inc	5462 N Irwindale Ave	Toxic Release Site	EnviroStor
United Rock Products Pit No. 2 Landfill	1245 Arrow Hwy	Hazardous Waste Facility	GeoTracker
United Rock Products Pit No. 3	1137 Meridian Hwy	Hazardous Waste Facility	GeoTracker
Valley Clutch Co. Inc.	5396 Third St	Cleanup Site	GeoTracker

SOURCE: California Department of Toxic Substances Control (DTSC) EnviroStor 2024; Environmental Protection Agency (USEPA) Toxic Release Inventory (TRI) 2024; State Water Resources Control Board (SWRCB) GeoTracker 2024.



SOURCE: DTSC 2023; USEPA 2023; SWRCB 2023; ESRI 2023; ESA 2023

FIGURE SAF-13 **Hazardous Materials Sites**

DTSC maintains the **EnviroStor** data management system, which provides information on hazardous waste facilities (both permitted and corrective action), as well as any available site cleanup information. **GeoTracker** is the SWRCB's internet-accessible database system used by the SWRCB, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks (USTs).

Table SAF-4 identifies registered hazardous waste generators and handlers in the city. There is one permitted operational facility handling the proper disposal of hazardous waste in the city, CleanTech Environmental, and there are six hazardous waste generators. The six sites were identified in the USEPA TRI. They represent various industries producing nonmetallic minerals, beverages, and petroleum. Because these businesses use hazardous materials, they are required to obtain necessary permits from various public agencies.

Local Vulnerabilities

Communities and neighborhoods near hazardous materials sites are the most vulnerable. All residential neighborhoods in the City of Irwindale that are located in or within the vicinity of industrial areas known to have potential hazardous material (including Irwindale Avenue, Arrow Highway, and Cypress Street) are physically vulnerable to a hazard caused by release of hazardous materials due to their proximity to hazardous materials sites. Public safety issues involve not only the use of these materials in populated areas but also the transportation and disposal of chemicals and other hazardous substances through the city. Two major freeways (the Foothill Freeway [I-210] and the San Gabriel River Freeway [I-605]), numerous railway lines, and the urban arterials that traverse the city carry traffic that is involved in the transport of hazardous materials. These transportation routes carry a variety of materials that could pose health risks to city residents in the event of an accident.

Additional potential secondary hazards of hazardous materials spills include the following, as identified in the 2014 Hazard Mitigation Plan:

- Fires and explosions
- Disruption of transportation systems
- Need for specialized emergency responders

- Destruction of utilities and other public services
- Damage to public infrastructure and facilities
- Residential displacement (including evacuations)
- Individuals trapped and injured in unsafe conditions
- Health issues related to discharges or releases
- Need for emergency food, shelter, and medical care
- Economic impacts, both short and long term
- Water pollution and quality degradation

Local Initiatives

The City coordinates with LACoFD, who is the Certified Unified Program Agency (CUPA) for Irwindale (LACoFD 2022). LACoFD requires hazardous materials users and generators to store and handle hazardous materials in accordance with best management practices approved by the LACoFD Health Hazardous Materials Division, and to identify safety procedures for responding to accidental spills and emergencies. The LACoFD Health Hazardous Materials Division requires facilities and businesses to report hazardous materials that exceed the hazardous materials reporting thresholds outlined in its Hazardous Materials Reporting Matrix as well as the thresholds under state law, pursuant to the California Health and Safety Code. Hazardous materials that are non-compliant must be reported using the California Environmental Reporting System (CERS). CERS is a statewide web-based system that supports the electronic exchange of required Unified Program information among businesses, local governments, and USEPA. State law requires that specified changes or updates to a facility's reportable inventory be submitted in CERS within 30 days (HSC Section 25508.1). In addition, a facility is required to submit the hazardous materials inventory annually by the deadline set by the LACoFD Health Hazardous Materials

Division. Other county programs applicable to Irwindale include a UST program, an aboveground storage tank program, the Hazardous Materials Release Response Plans and Inventory Program, and the California Accidental Release Prevention Program.

The City also encourages residents to properly dispose of household hazardous waste through the support of Hazardous Materials Collections conducted at specific locations and times within the city. Common household hazardous waste includes batteries, paint, adhesives, drain openers, automotive products, grease and rust solvents, fluorescent lamps, mercury, televisions, computer monitors, and pool chemicals. Periodic household hazardous waste drop-off events are held throughout the year by Los Angeles County. The City keeps the community aware of these events through flyer announcement mail-outs and posts the events on its Household Hazardous & Electronic Waste webpage.

The City requires businesses that handle hazardous materials to obtain permits from various public agencies, including the city Building Division, LACoFD, LA County Department of Public Health, and South Coast Air Quality Management District.

City programs are used to help address water pollution by regulating potential discharges into local water sources by local businesses, ensuring that they meet National Pollutant Discharge Elimination System requirements. This includes the preparation of a Stormwater Pollution Prevention Plan to prevent on-site contaminants being released into area storm drains.

In addition, due to mining operations, the City has staff trained in the Surface Mining and Reclamation Act to address hazardous materials releases created through mining operations to help ensure that potential hazards are mitigated at the source.

The City of Irwindale's Municipal Code (Code, or IMC) addresses a variety of hazards and related topics, including hazardous materials and waste and safety. The California Fire Code is adopted as Chapter 15.12 of the Code.

- Chapter 13.04 of the Code is the Sanitary Sewer and Industrial Waste Ordinance, which regulates the following:
  - Discharge, deposit, and disposal of all waste, including any material that may cause pollution of underground or surface waters, in, upon, or affecting the city.
  - The design, construction, alteration, use, and maintenance of public sewers and house laterals, industrial connection sewers, water pollution control plants, sewage pumping plants, industrial liquid-

waste pretreatment plants, dairy screen-chambers, sand and grease interceptors, and appurtenances.

  - The issuance of permits and the collection of fees thereof, and fees to pay the cost of checking plans, inspecting the construction, and making record plans of the facilities permitted.

- Chapter 13.08 of the Code establishes regulations for underground utility districts. Any business operation requesting the use, sale, or storage of hazardous materials would also be subject to Conditional Use Permit per IMC Subsection 17.80.030(27).

With respect to the freeways and railroad, the City has less control over such activities due to the interstate nature of this traffic. Communication with state and federal regulatory agencies is critical to reduce the risk of accidents and ensure that response to transportation-related hazardous materials incidents is immediate and effective. The California Highway Patrol (CHP) regulates the transportation of hazardous materials in California. Vehicles and drivers involved in the transportation of hazardous materials must obtain a hazardous materials transportation license from the CHP (CHP 2022).

Key Findings Related to Hazardous Materials

- All residential neighborhoods in the city that are located in or within the vicinity of industrial areas, including along Irwindale Avenue, Arrow Highway, and Cypress Street, are physically vulnerable to hazards caused by release of hazardous materials.
- Public safety issues involve the use, transportation, and disposal of chemicals and other hazardous substances within the city.
- CleanTech Environmental handles disposal of hazardous waste in the city.

Community Feedback

The City released a community survey to both residents and employees of Irwindale to obtain input on topics related to community hazards, pollution, hazardous materials, and air quality to get a better understanding of how the City can improve safety in Irwindale. Overall, respondents indicated the following relating to hazardous materials with respect to safety in Irwindale:

- Hazardous materials were identified as a primary hazard of concern, following crime, poor air quality, pandemic, and drought. Within the community survey, approximately 18 percent of residents and 22 percent of employees selected hazardous materials as a primary hazard concern.
- "Accountability from the City regarding co-ownership of properties that are in danger of hazardous substances."
- Approximately 19 percent of residents surveyed expressed concern with hazardous material and chemical waste dumping.

Law Enforcement and Crime

Introduction

The Irwindale Police Department is responsible for law enforcement, patrolling, traffic enforcement, emergency and disaster services, and regional coordination to address crime and safety in Irwindale. Established in November 1960, the Irwindale Police Department has grown from one police unit and five motorcycles to 38 staff across five bureaus:

- The **Administration Bureau** includes the police chief, captain, lieutenant, and public information officer, who manage the department's leadership activities.
- The **Communications Bureau** includes dispatchers and clerks, who are the first line of response to calls for service. Dispatchers and clerks monitor and maintain communication with law enforcement officers on duty, and support officers with information on criminal history, warrant, and vehicle record checks.
- The **Detective Bureau** conducts crime investigations, including those of theft and assault. Detective staff are trained in investigative and interview techniques and collaborate with county and federal task forces on narcotic, automobile, and theft investigations.
- The **Records Bureau** maintains documentation of all police incidents, provides support for court documentations, and processes public records requests.
- The **Patrol Bureau** includes sergeants, corporals, and sworn police officers. With the largest number of staff, the Patrol Bureau is the most visible bureau within the Police Department and regularly conducts preventive patrols and responds to services and requests. The primary responsibilities of the Patrol Bureau staff are to protect life and property, conduct arrests, and provide law enforcement.

The Irwindale Police Department is located at the southeast area of the city at 5050 N. Irwindale Avenue and has a response time of up to 5 minutes for most areas within the city. Through a mutual aid contract with the Los Angeles County Sheriff's Department, the City of Irwindale receives special weapons team services as necessary as well as other specialized equipment and services to assist with law enforcement. The City also has contracts with the West Covina Police Department and Baldwin Park Police Department for jail facility services and the

Foothill Air Support Team, hosted by Pasadena Police Department, for air support services.

Local Conditions

The Irwindale Police Department reports crime relating to five main offenses, which are violent crimes, property crimes, arson, burglary, larceny-theft, and motor vehicle theft. In Irwindale, property crime has the greatest number of reports followed by larceny-theft, while hate crime and arson have the least.

In 2020 there were 17 reports of violent crime, 182 of property crime, and no reported hate crimes.[4]

VIOLENT CRIME

Violent crimes involve force or threat of force and include four main offences: homicide (murder and non-negligent manslaughter), rape, robbery, and aggravated assault (FBI 2021). **Figure SAF-14** provides a chart illustrating violent crimes reported in the City of Irwindale from 2010 to 2020. Red represents all violent crimes reported, while blue represents crimes that have been cleared or closed. Violent crime rates in the past 10 years have fluctuated, with peaks in 2011, 2015, and most recently in 2019 (FBI 2021). The year 2015 saw the highest number of crimes, with 27 reports submitted. Overall, a total of 210 violent crimes were reported within this time period, averaging to 19 reported crimes per year. Approximately 44 percent of violent crimes in this time period have been cleared.[5]

In 2020, the total 17 violent crimes were reported, including aggravated assault (12 reports), robbery (3 reports), and rape (2 reports). No homicides were reported in 2020.

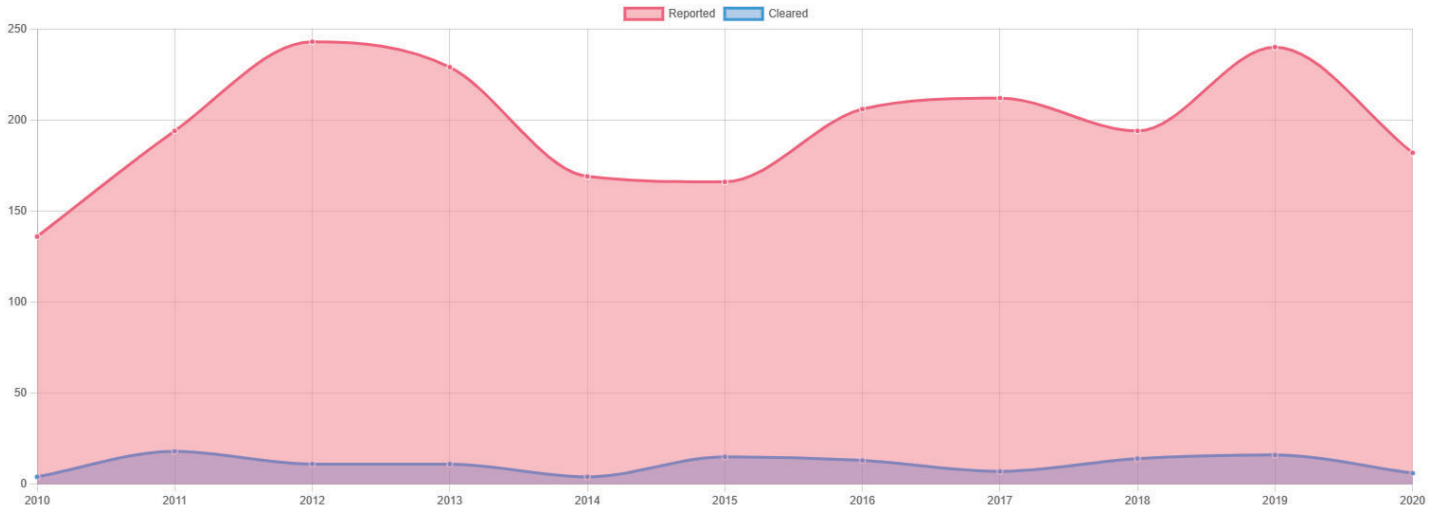
The City of Irwindale has a relatively higher violent crime rate (18th percentile) than the statewide average (4th percentile), which means there are more violent crimes per person reported in Irwindale than the state average (FBI 2019).

PROPERTY CRIME

Property crime refers to arson, burglary, larceny-theft, and motor-vehicle theft. **Figure SAF-15** illustrates reports of property crimes from 2010 to 2020. In total, 2,171 property crimes were reported from 2010 to 2020, with an annual average of 197 reports per year (FBI 2021). Of these, 5 percent have been cleared. The highest number of property crime was reported in 2019, with 240 reports.

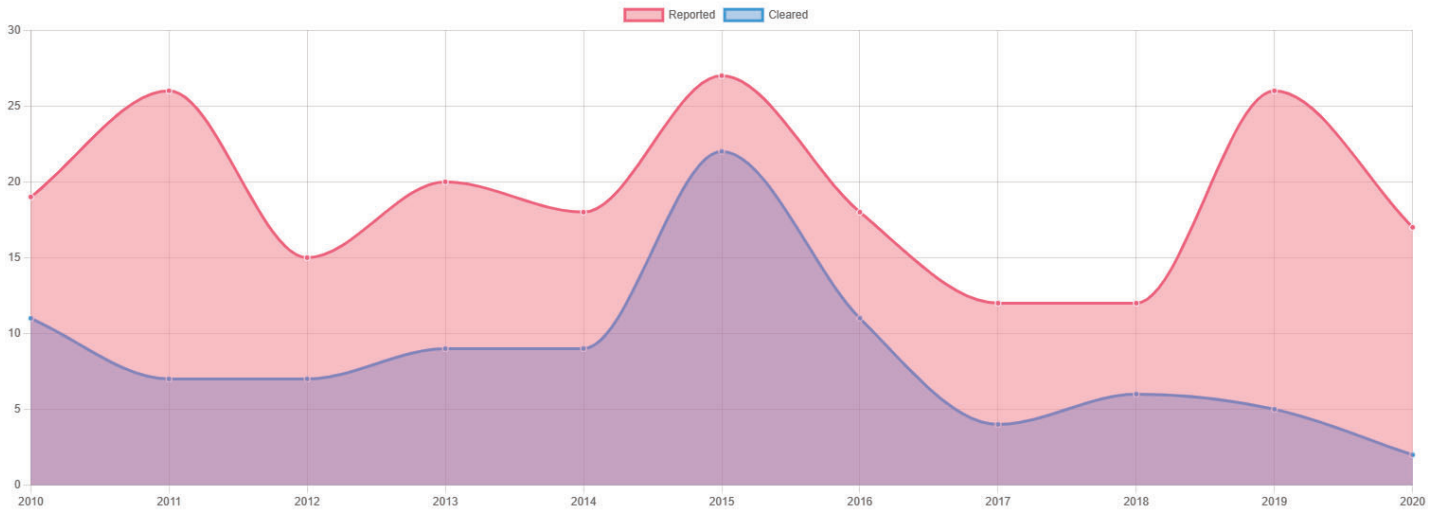
[4] Crime numbers refer exclusively to reported crimes only, and do not account for unreported crimes or crimes that do not meet certain data collection guidelines by the FBI (FBI 2021).

[5] Crimes may not be cleared in the year that they occur (FBI 2021).



SOURCE: FBI 2021

FIGURE SAF-14 **Violent Crime Chart**



SOURCE: FBI 2021

FIGURE SAF-15 **Property Crime Chart**

Property crimes in 2020 were greatest due to larceny-theft (104 reports), followed by burglary (52 reports), vehicle theft (26 reports), and arson (2 reports) (FBI 2021).

The city has a greater rate of property crime (16th percentile) compared to the state average (6th percentile) (FBI 2019).

HATE CRIME

Hate crimes are criminal offenses committed that are motivated in whole or in part by bias against race or ethnicity, nationality, disability, gender or gender identity, religion, sexual orientation, or associations with person(s) having these actual or perceived characteristics (DOJ 2021). In 2021, there were a total of 1,763 hate crimes reported in California and 630 reported in Los Angeles County, one of which occurred in Irwindale (DOJ 2021). Factors that influence reporting numbers in communities include population density, cultural diversity, community policing, and law enforcement training for identification of hate crimes.

Local Vulnerabilities

Neighborhoods with no or low crime contribute to healthier, safer, and more active communities. Vulnerable groups who experience and are targeted by more crime include persons of color and younger individuals, who are disproportionately impacted by violent crime. In 2020, the majority of homicide crime victims in California were Hispanic people (45.3%), followed by Black people (30.7%). Additionally, the majority of homicides occurred outdoors (38.7%) on a street or sidewalk (California DOJ 2021). Individuals affected by crime are more likely to experience post-traumatic stress and mental health impacts. Separately, physical structures and operations are also at risk of crime. The local police stations, dispatch centers, and emergency response facilities are critical facilities as they are involved in first response to crime situations.

Crime can cause secondary impacts on people, finances, and communities. Neighborhoods with higher levels of crime may have individuals less likely to spend time outdoors and use public/recreational amenities, including parks, playgrounds, and trails. High levels of reported crime can also impact real estate and economic development in cities.

Local Initiatives

The Irwindale Police Department provides essential services relating to law enforcement, patrol, investigative services, and public safety dispatch and communications, as well as serving as a first responder to support emergencies, disaster response, evacuations, and movement and escorting of people and vehicles. The Police Department also manages the City's emergency operations, serving as the lead organization for prevention, mitigation, preparedness, protection, response, and recovery relating to disasters (City of Irwindale 2021a). As part of this responsibility, the Police Department manages emergency response and alerts, and is responsible for coordinating with local and state agencies for public alerts and warnings. *See the Emergency Preparedness section for additional information.*

The following programs and operations are also maintained by the Irwindale Police Department:

- Managing the City's CivicReady services for public alerts on emergencies, warnings, and events through email, text messages, phone calls, and online platforms.
- Managing the Safe Medication Disposal Program and providing substance abuse services.
- Voluntary reporting of Police Department crime data to the FBI for violent crime, property crime, arson, burglary, larceny-theft, and hate crimes.
- Coordinating with local, regional, and state entities for safety services through mutual aid agreements for law enforcement, crime response, and other emergencies and situations.
- Engaging community members through events, including National Night Out.

Key Findings Related to Law Enforcement and Crime

- The Irwindale Police Department has existing agreements with the Los Angeles County Sheriff's Department, West Covina Police Department, Baldwin Park Police Department, and Pasadena Police Department for support services relating to law enforcement.
- The city has a relatively higher crime rate than the state average for violent crime and property crime.
- In 2020 the greatest reports of crime were property crimes with 182 reports, due primarily to larceny-theft (104 reports). Violent crime reports totaled 17, due primarily to aggravated assault (12 reports). There were no hate crimes reported in 2020.
- Approximately 44 percent of violent crimes reported from 2010 to 2020 have been

cleared, while only 5 percent of property crimes have been cleared.

- Populations vulnerable to crime include people of color, especially Hispanic and Black people, younger individuals, and individuals who spend more time outdoors.
- High crime areas can impact public spaces, social gathering, parks and recreation uses, active commuting and transportation, and public health. Real estate and businesses may also be impacted.
- The City regularly reviews law enforcement services and implements programs for increasing safety through its Neighborhood Watch.
- The Police Department shares information, warnings, and other alerts through its CivicReady public alert system, which provides updates and information to individuals through the internet, email, phone calls, and text messaging.
- The Police Department contracts with California Consulting to identify grant funding. As a result, the Police Department has received Office of Traffic Safety Grants for active transportation safety improvements.
- The Police Department conducts active shooter trainings for businesses and organizations in Irwindale.

Community Feedback

A community survey of a sample of the population revealed crime to be in the top three hazards of concern for both residents and employees of Irwindale. Community members noted shootings, larceny and theft, and lack of law enforcement and surveillance as significant issues. Community engagement with Irwindale residents and employees revealed information on sense of safety and crime in the city:

- Approximately 82 percent of community engagement participants said they feel safe in the city.
- Irwindale residents identified crime as the greatest hazard of concern (59 percent), followed by poor air quality and pandemic. Employees identified crime as the third-greatest (36 percent) concern, following poor air quality and pandemic.
- Approximately 55 percent of residents and 24 percent of employees said they do not feel safe from crime when they are walking or biking.
- Employees want increased law enforcement, especially in industrial areas, and fast response times to help address crime and increase safety.
- Community members would like to see increased security and surveillance at

businesses and other private properties to help discourage break-ins.

- Community members would like to see safety measures implemented in public spaces to help reduce crime, including more security and law enforcement, faster response times, surveillance/monitoring, and street lighting, particularly in alleyways and along Arrow Highway.

Wildfire

Introduction

Wildfires are a natural part of the landscape across California. In Southern California, fire has a critical role in ecosystem function for fire-adapted habitat types. In recent years, the fire season in California has gotten worse with more frequent and destructive fires. Recent fires in Los Angeles County have highlighted the direct and indirect impacts that fires can have on public health, property, and infrastructure. In Los Angeles County, hot, dry summer and fall weather combined with Santa Ana Winds and low fuel moisture levels often create severe wildfire conditions across the county. These conditions, which can lead to dangerous wildfire conditions, are expected to worsen with climate change.

In California, local, state, tribal, and federal organizations all have legal and financial responsibility for wildfire protection. Within Irwindale, the Santa Fe Dam Recreational Area falls under Los Angeles Parks and Recreation Department and is serviced primarily by the LACoFD. The California Department of Forestry and Fire Protection (CAL FIRE) has adopted Fire Hazard Severity Zone (FHSZ) mapping throughout the state. These maps rate wildfire hazards as "moderate," "high," or "very high" based on fuel loading, slope, fire weather, and other relevant factors.

Local Conditions

The City of Irwindale is relatively flat and does not have steep slopes, other than slopes created by sand and gravel mining. The vegetation in the undeveloped areas of the city that are designated as Very High Fire Hazard Severity Zones (VHFHSZs) is primarily alluvial scrub, which is an assortment of drought-tolerant shrubs and large evergreen woody shrubs that are flammable. Alluvial areas in Irwindale have been highly disturbed by sand and gravel extraction and other activities. Land cover in other areas of the city includes industrial uses, areas disturbed by sand and gravel mining, commercial and residential areas, and parks and open space (City of Irwindale 2008). There are no significant fuel loads in the city outside of the areas designated as VHFHSZs, which are located to the north and northeast.

Because of its mostly urban setting, large wildfires within the City of Irwindale are limited; however, brush fires do occur in areas of open space within the city limits, such as the Santa Fe Dam Recreation Area. For example, a brush fire

ignited on June 15, 2021, and burned approximately 50 acres.

Another brush fire was ignited on August 1, 2021, in the Santa Fe Dam Recreation Area burned approximately 26 acres. More recently, on May 11, 2022, a brush fire ignited at the Santa Fe Dam between the San Gabriel River Bike path and the San Gabriel River burned 2 acres. LACoFD responded quickly to these brush fires and no injuries and no structures were threatened or damaged in these fires (SGVCityWatch 2022).

Additionally, the city is approximately 1.5 miles from the base of the San Gabriel Mountains, which are located in a VHFHSZ and have a history of frequent wildfires as recorded by CAL FIRE (CAL FIRE 2021a). Recent larger wildfires in the nearby San Gabriel Mountains are listed in **Table SAF-5**.

TABLE SAF-5 **Wildfire Events near and in the City of Irwindale, 2000–2022**

DATE	EVENT NAME	SIZE (ACRES)	APPROXIMATE DISTANCE FROM IRWINDALE (MILES)
9/6/2020	Bobcat	115,796	2.2
8/132020	Ranch 2	4,119	1.8
7/30/2020	Dam	226	3.0
11/6/2020	San Dimas	131	12.0
6/20/2016	San Gabriel Complex (Fish Fire)	4,246	4.2
6/20/2016	San Gabriel Complex – Reservoir Fire	1,147	0.8
1/15/2014	Colby	1,952	1.6
9/2/2012	Williams	4,192	9.4
8/26/2009	Station Fire	160,833	7.2
8/25/2009	Morris	2,237	4.4
10/21/2003	Grand Prix	50,618	14.0
9/22/2002	Williams	38,199	3.1

SOURCE: CAL FIRE (2021a)

Local Vulnerabilities

Land use within the City of Irwindale is primarily urban; therefore, the majority of fire risk in the city is anticipated to be the risk of structure fires within the city. However, within the city boundary, there are large areas of open space that are susceptible to brush fires, particularly around the Santa Fe Dam.

As shown in **Figure SAF-16**, within the city boundary, approximately 2 square miles, or 1,321 acres, of land are designated by CAL FIRE as a VHFHSZ. This includes areas of open space east of I-605 and south of the I-210 freeways around the Santa Fe Dam Recreation Area and adjacent quarry (see Figure SAF-16).

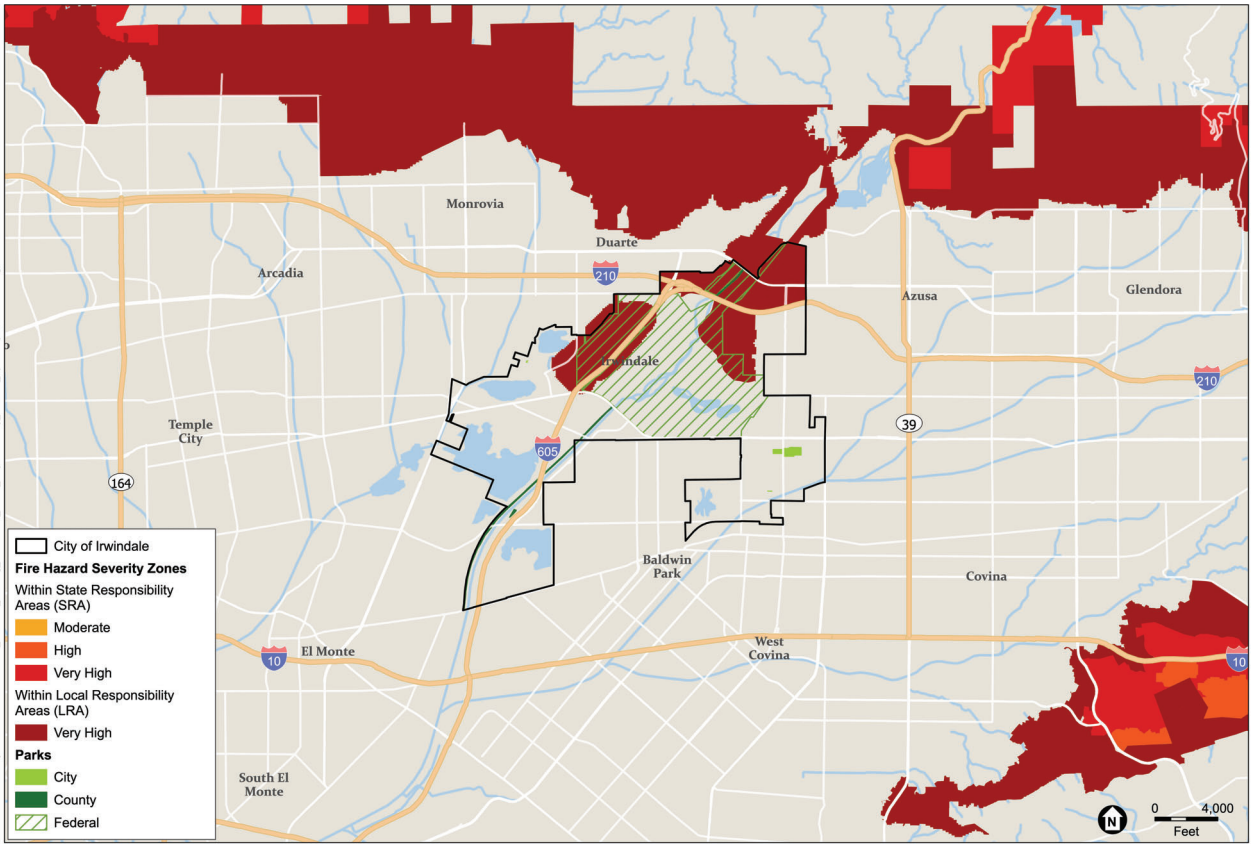
Individuals who live or work near the areas of the city designated as a VHFHSZ are the most vulnerable to the direct health and property loss impacts from wildfires. These areas include business areas east of Buena Vista Street and south of Village Road on the City of Hope Campus, residential areas east of Mountain Avenue between Meridian Street and Schrode Avenue on the western edge of the city, businesses north and northeast of the Santa Fe Dam, and business areas along and north of the I-210 freeway on the eastern edge of the city.

VULNERABLE DEVELOPMENT, CRITICAL FACILITIES, AND INFRASTRUCTURE

As defined in the state's Office of Planning and Research Guidelines, critical facilities include "facilities that either (1) provide emergency services or (2) house or serve many people who would be injured or killed in case of disaster damage to the facility." Examples include hospitals, fire stations, police or emergency service facilities, utilities, or communications facilities.

The following critical facilities and infrastructure are located in VHFHSZs in the City of Irwindale (**Figure SAF-17**):

- Two electrical substations near the western edge of the city
- An electrical transmission line that runs from the northeast corner of the city to the southwest corner of the city
- An urgent care clinic in the northeastern corner of the city
- The I-210 freeway and the I-605 freeway, which are critical transportation and access routes for the City of Irwindale



SOURCE: CAL FIRE 2022; ESRI 2022; ESA 2022

FIGURE SAF-16 **Fire Hazard Severity Zones**

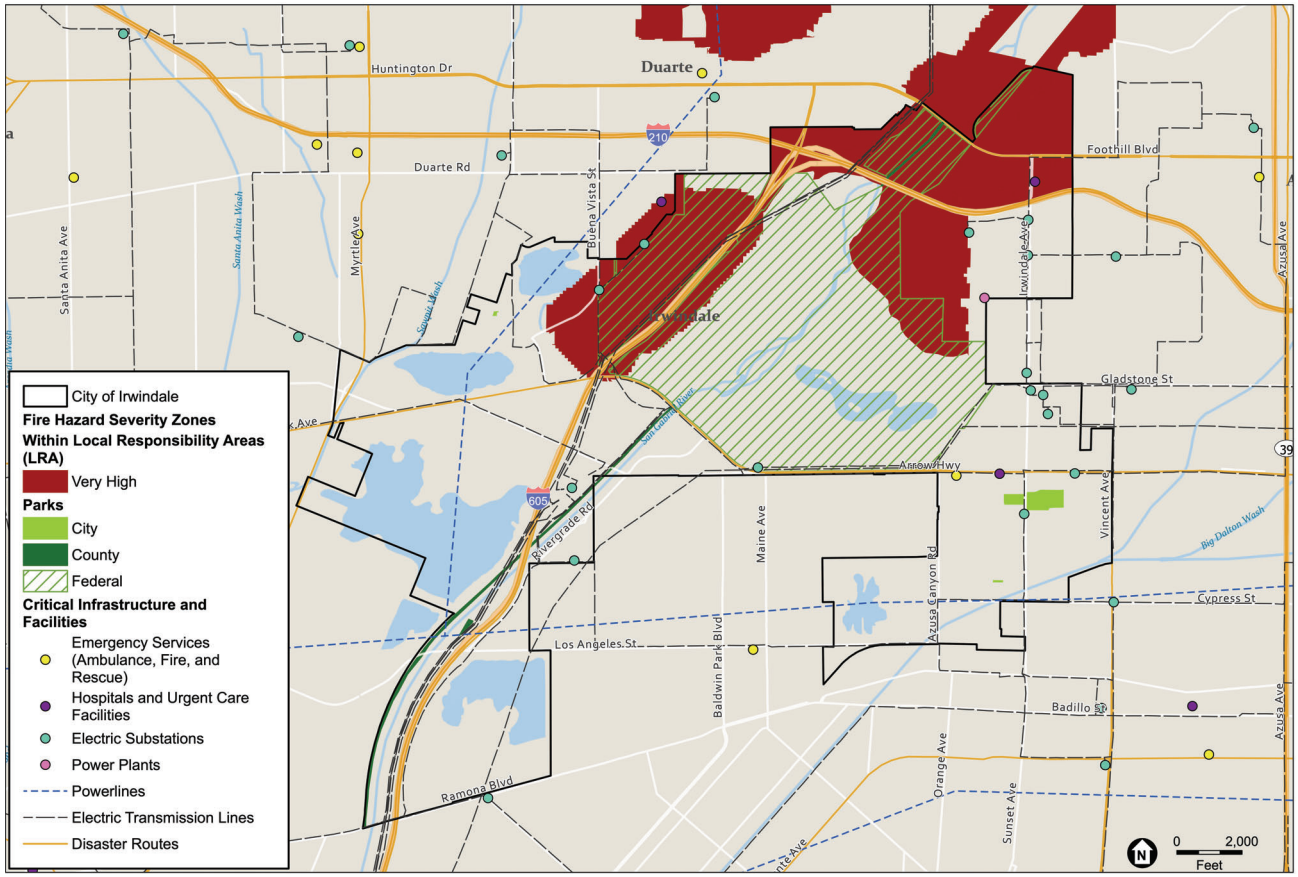
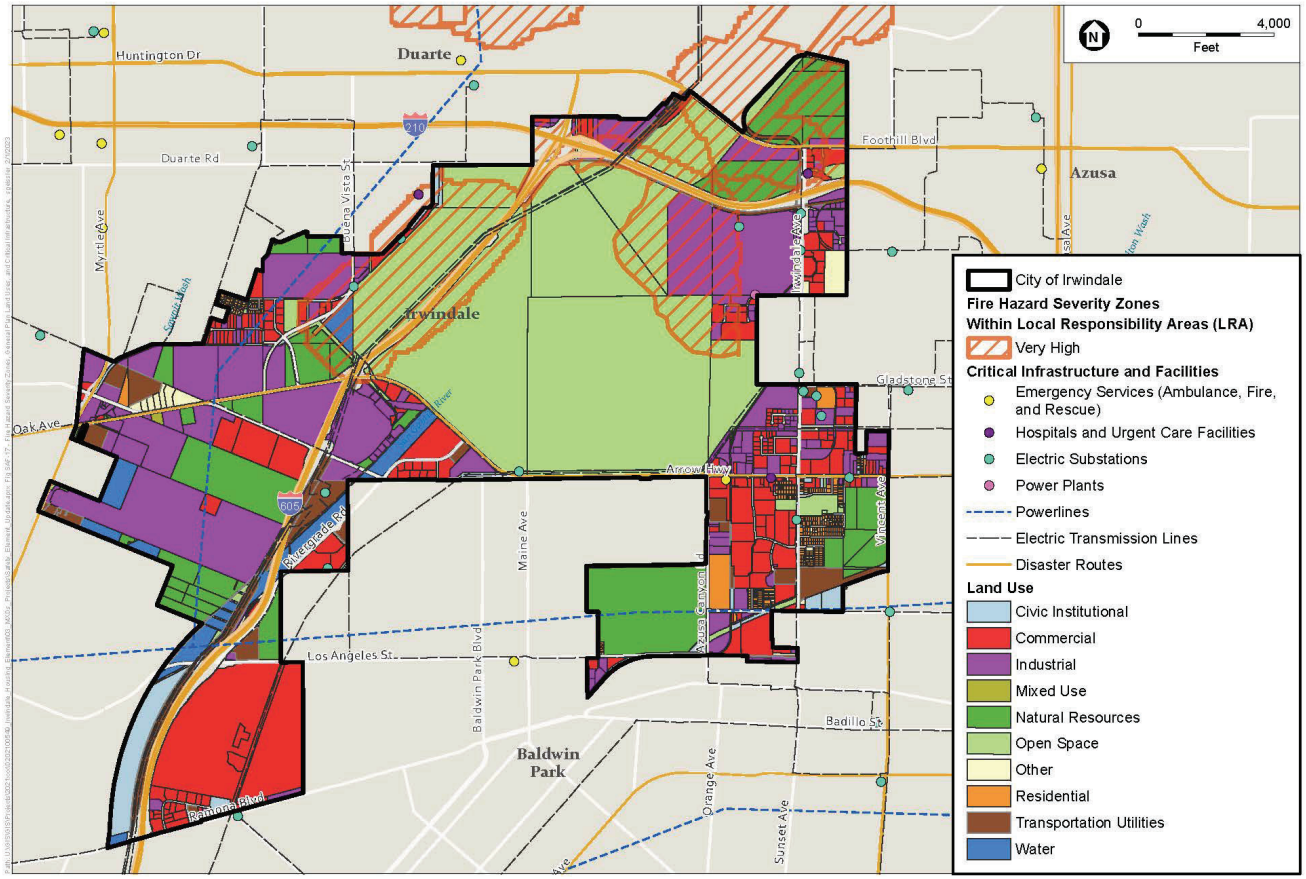


FIGURE SAF-17 **Fire Hazard Severity Zones, Critical Infrastructure**



SOURCE: CAL FIRE 2022; CEC 2022; DHS 2022; LA County DPW 2022; USEPA 2022; USGS 2022; ESRI 2022; ESA 2022

FIGURE SAF-18 **Fire Hazard Severity Zones, Critical Infrastructure, and Land Uses**

Emergency Access

Senate Bill (SB) 99 requires that the Safety Element include information to identify residential developments in hazard areas that have fewer than two emergency evacuation routes (CLI 2019). In essence, this legislation assists in identifying neighborhoods and households within a hazard area that have limited accessibility. Even though this legislative requirement applies specifically to designated hazard areas, this evacuation assessment has identified all residential developments in the city, including those that are not in a designated hazard area, that have only one emergency evacuation route. This is intended to assist the City with identifying opportunities to improve connectivity and evacuation capacity generally.

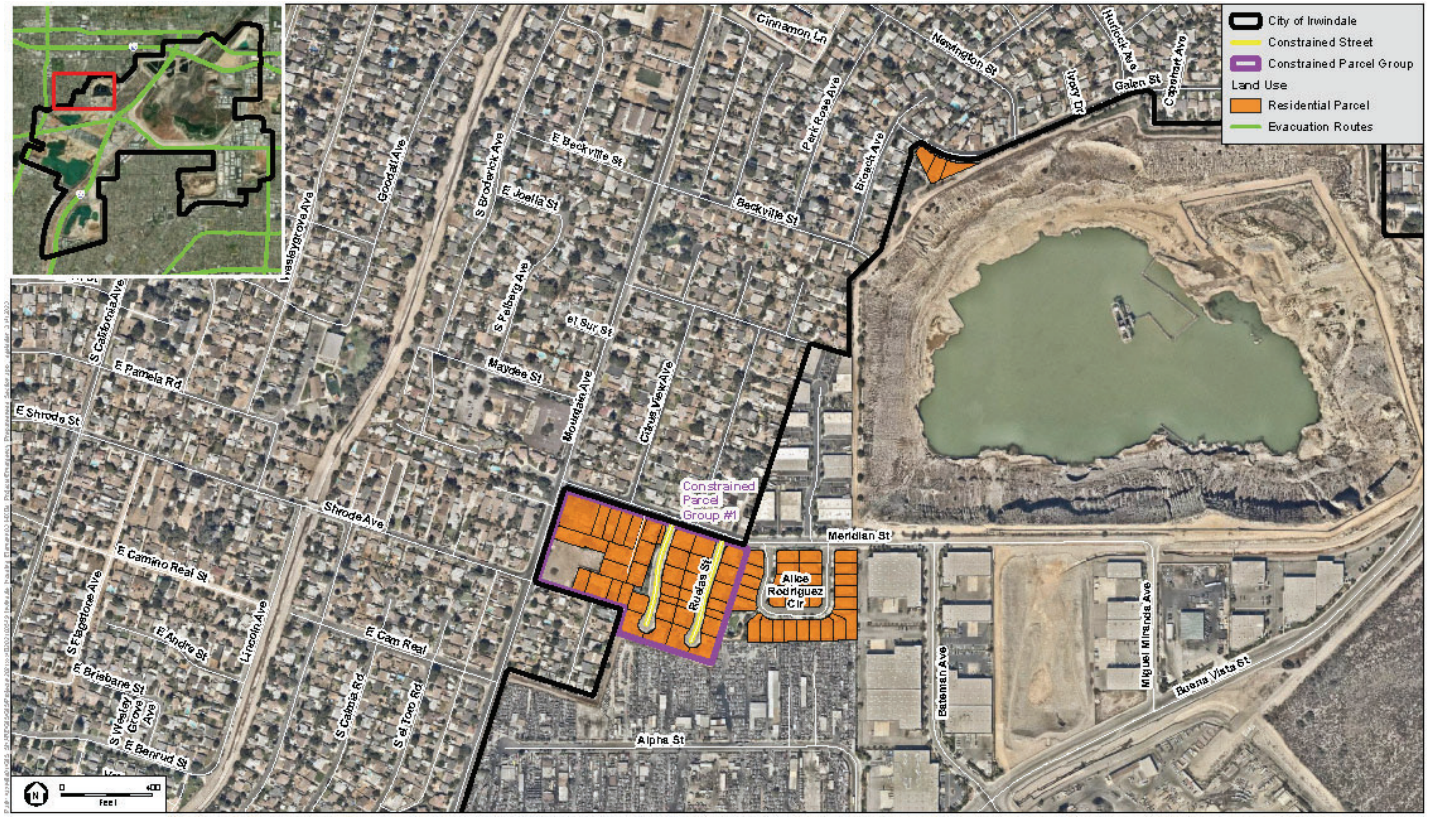
There are two residential areas highlighted in **Figure SAF-19** and **Figure SAF-20** that have fewer than two points of access to designated emergency evacuation routes. These include the neighborhood located east of Mountain Avenue and south of Meridian Street; and the neighborhood located on the eastern side of the city, including homes on Progress Lane, west of Allen Street. Emergency access routes adopted by the City are designated by Los Angeles County and also shown in Figure SAF-19 and Figure SAF-20 (see also **Figure SAF-21** in the *Emergency Preparedness* section below).

This Safety Element includes policies to improve emergency evacuation procedures throughout the city, including in the most vulnerable areas. Assembly Bill 747, which went into effect on January 1, 2022, requires cities to evaluate route capacity, safety, and viability under a range of emergency scenarios. This requirement will be addressed in the Hazard Mitigation Plan update.

Commented [SP1]: NOTE TO CITY: Please confirm that AB 747 will be addressed in the Hazard Mitigation Plan update.

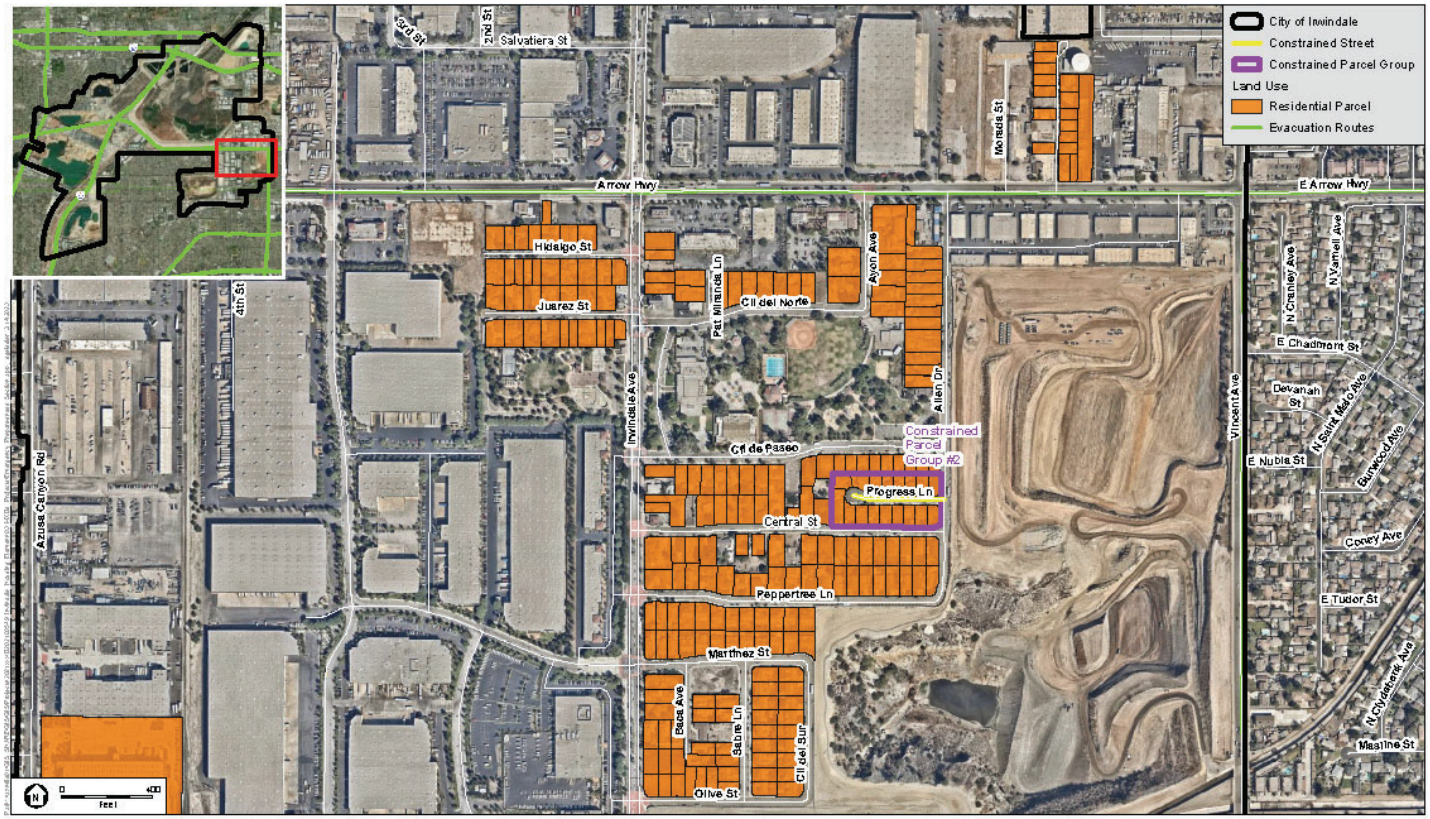
Local Initiatives

The city does not have its own fire department; therefore, it relies on fire protection services from LACoFD. Fire protection is provided by the LACoFD fire station located within the city on Arrow Highway. The fire station has 16 full-time firefighters and equipment. The city does have an emergency alert system, **CivicReady**, that could be used to alert residences of fire and smoke risk. Depending on the capacity of the LACoFD, if there are multiple fires or emergencies to respond to within an area, it may reduce the Fire Department's ability to provide fire protection services to the City of Irwindale.



SOURCE: ESA 2023

FIGURE SAF-19 **Constrained Parcel Groups and Street**



SOURCE: ESA 2023

FIGURE SAF-20 **Constrained Parcel Groups and Street**

With regard to reducing fire risk in the areas of the city that are designated as VHFHSZs, LACoFD works with a local task force to address the issue of hillside brush fires through vegetation removal to reduce fire hazard in the San Gabriel River Basin. In addition, the City ensures that new plant and landscape plans are reviewed by contracted landscape architects, which includes checking plant types for suitability and flammability.

The frequency and severity of wildfire will likely increase with climate change. California's Fourth Climate Change Assessment Los Angeles Regional Report stated that climate projections indicated a 60 percent increase in area burned as a result of Santa Ana driven wildfire events, and a 75 percent increase in non-Santa Ana driven events in the Los Angeles Region by the mid-21st century (California Governor's OPR 2022). In the nearby San Gabriel Mountains, climate change could increase the number of burned acres by 40 to 50 percent by mid-century (Cal-Adapt 2021). The City of Irwindale will continue to experience the impacts of fires within the areas of the city that are designated as VHFHSZs, as well as the potential for structure fires. The city is also at risk of potential fires in the San Gabriel Mountains to spread to Irwindale and to create far-reaching smoke impacts. The increase of wildfire with climate change may test the capacity of local and regional fire protection services.

Key Findings Related to Wildfire

- Areas designated by CAL FIRE as VHFHSZs are located to the north and northeast of the city, primarily around the Santa Fe Dam.
- Vegetation in the areas of the city that are designated as VHFHSZs are primarily alluvial scrub, which is an assortment of drought-tolerant shrubs and large evergreen woody shrubs that are flammable.
- Irwindale is located approximately 1.5 miles from the base of the San Gabriel Mountains, which are located in a VHFHSZ and have a history of frequent wildland fires.
- There are large areas of open space that are susceptible to brush fires, particularly around the Santa Fe Dam.
- Individuals who live or work near the areas of the city designated as a VHFHSZ are the most vulnerable to the direct health and property loss impacts from wildfires, including business areas east of Buena Vista Street and south of Village Road on the City of Hope Campus, residential areas east of Mountain Avenue between Meridian Street and Schrode Avenue on the western edge of the city, businesses north and northeast of the Santa Fe Dam, and business areas along and north of the I-210 freeway on the eastern edge of the city.

- There are critical facilities and infrastructure located in VHFHSZs.
- The neighborhood located on the western side of Galen Street; the neighborhood east of Mountain Avenue, south of Meridian Street; and the neighborhood located on the eastern part of Park Avenue, north of Los Angeles street, have fewer than two points of access to designated emergency evacuation routes.
- Due to climate change, Irwindale will continue to experience the impacts of fires within areas that are designated as VHFHSZs.
- The increase of wildfire with the progression of climate change may test the capacity of local and regional fire protection services.

Community Feedback

The City released a community survey to residents and employees of Irwindale to obtain input on topics related to community hazards, pollution, hazardous materials, and air quality to get a better understanding of how the City can improve safety in Irwindale.

Overall, respondents indicated the following relating to wildfire with respect to safety in Irwindale:

- Approximately 18 percent of residents and 14 percent of employees selected fire as a primary hazard concern.
- There was an overall concern with wildfire impacts expressed by the community.

Emergency Preparedness

Introduction

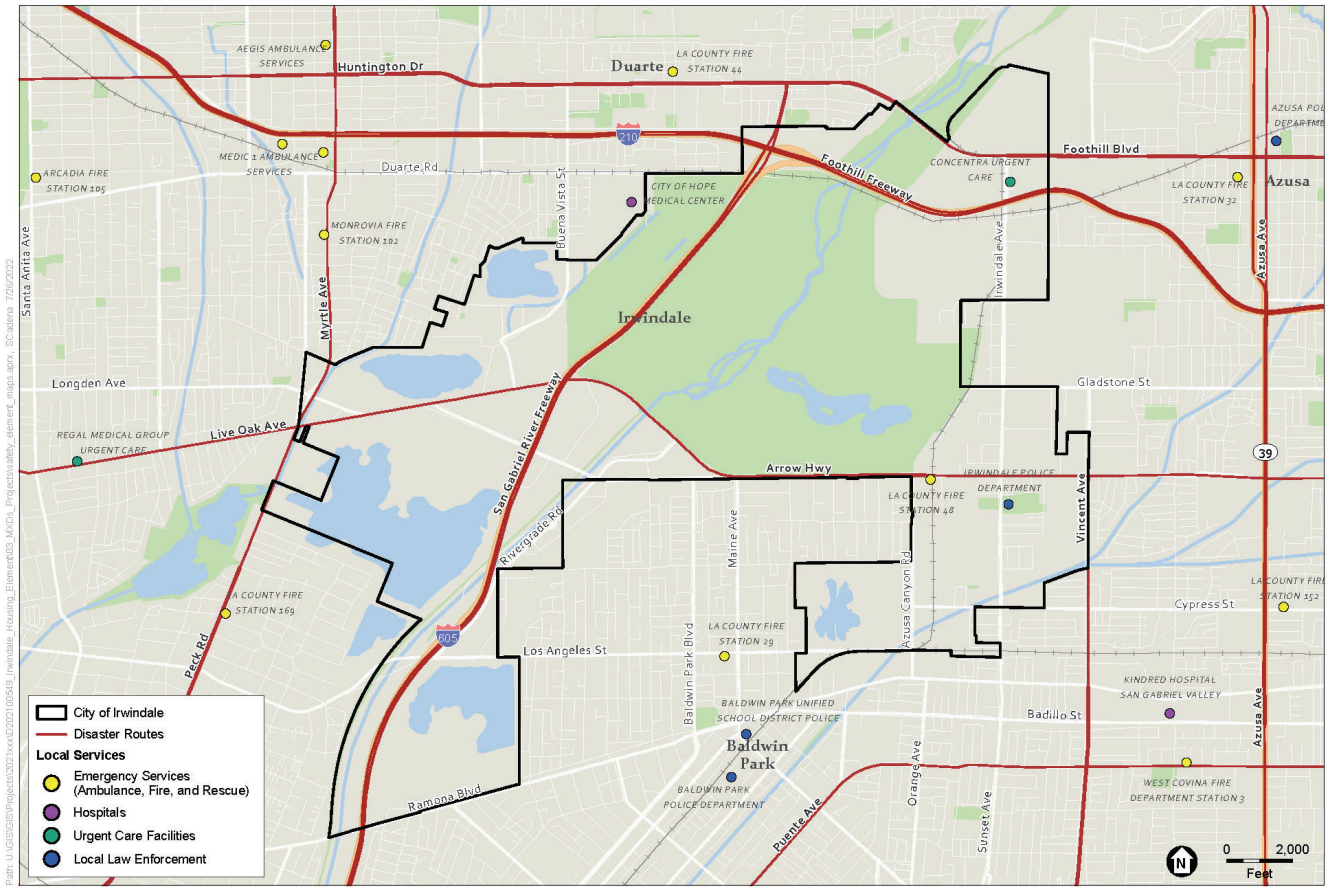
Emergency preparation is key to the safety of a community in the event of a disaster. Emergency situations can arise from natural disasters such as earthquakes, floods, and fires, or human-caused events like hazardous materials spills, security incidents, or train accidents. All of the hazards that are identified in this General Plan Element have the ability to affect the greater Irwindale community at varying intensities and would require consistent collaboration across city departments and private organizations to effectively address. This section identifies and describes the systems, organizations, policies, and programs that the City of Irwindale has in place to respond to hazards and ensure the preparedness, safety, and well-being of its residents.

City Capacity to Respond to Emergencies and Build Resilience

LAW ENFORCEMENT AND CRIME PREVENTION SERVICES

Law enforcement and crime prevention services in Irwindale are provided by the City of Irwindale Police Department. The Irwindale Police Department has a staff of 38 employees and is divided into five distinct bureaus, each of which has its own role within Irwindale Police operations—the Administration Bureau, the Patrol Bureau, the Detective Bureau, the Communications Bureau, and the Records Bureau. The sole police station in Irwindale is within Irwindale City Hall at 5050 N Irwindale Avenue, as shown in **Figure SAF-21**. Police personnel provide several programs and services focused on crime prevention, including Neighborhood Watch, Substance Medication Disposal, and Air Support. The Irwindale Police Department also uses the **CivicReady** system to issue urgent notifications, critical information, emergency instructions, public safety warnings, and other communications to subscribed users via email, text message, and voicemail.

For more detailed information on law enforcement services and crime in Irwindale, refer to the *Law Enforcement and Crime* section above.



SOURCE: HIFLD 2022; LA County 2022; ESRI 2022; ESA 2022

FIGURE SAF-21 **Emergency Preparedness**

FIRE PROTECTION

To provide a high level of cost-effective fire protection and prevention services to residents and the business community, the City contracts with LACoFD. In addition to emergency operation services such as firefighting, urban search and rescue, hazardous materials response, and homeland security, LACoFD conducts wildfire prevention activities and administers special programs to make communities more resilient to the effects of wildfire.

LACoFD operates Station 48, located at 15546 E Arrow Highway in Irwindale; see Figure SAF-21. The Station serves not only the City of Irwindale, but also the cities of Azusa, Baldwin Park, Covina, and Duarte.

HOSPITALS

Two major hospital complexes serve the City of Irwindale, Kaiser Permanente and Citrus Valley Health Partners. In addition, there are three industrial medical clinics in the city, Trans-Valley Medical Clinic, Foothill Medical Clinic, and Irwindale Industrial Medical Clinic. The City of Hope medical complex and hospital is located in nearby Duarte and also serves Irwindale residents.

Emergency Access

Wildfires can isolate areas of the city and create severe health and safety risks. Senate Bill (SB) 99, adopted August 2020, requires identification of neighborhoods that have fewer than two emergency evacuation routes (CLI 2019). The Wildfire subsection of the Safety Element provides information regarding fire risk in the community and analysis of emergency evacuation routes, pursuant to SB 99.

EMERGENCY SHELTERS

According to the Los Angeles County Office of Emergency Management, an evacuation shelter may be set up by the Red Cross at the request of the County if an area must be evacuated for an extended amount of time. In general, however, the location for an evacuation shelter will be announced by local officials once a safety assessment is complete and the shelter is ready to accept those affected by the evacuation. Currently, the City of Irwindale does not have any emergency shelters designated within the city in the event of a natural disaster or emergency.

Additional City Safety Services

AIR SUPPORT

The Foothill Air Support Team, otherwise known as FAST, is a partnership between the cities of Alhambra, Arcadia, Covina, Glendora, Irwindale, Monrovia, Pasadena, Pomona, San Marino, Sierra Madre, and South Pasadena.

FAST helicopter crews monitor police radio calls within the FAST cities, and they respond on calls where an airborne response would prove beneficial to officers on the ground. Once overhead, the air crew provides an aerial platform for ground operations.

CIVICREADY

Public safety organizations in Irwindale, such as the Irwindale Police Department, use the **CivicReady** service to deliver important and timely information at no cost to the community.

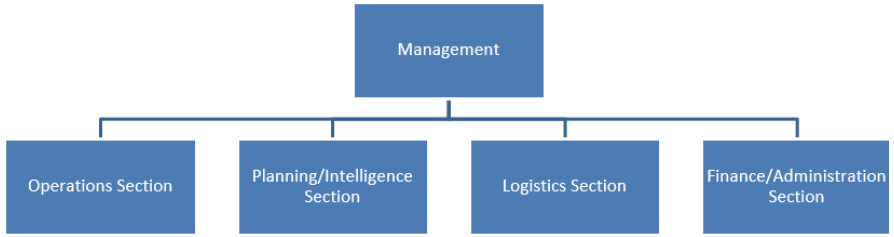
EMERGENCY OPERATIONS CENTER

According to the city's Emergency Operations Plan, when a threat or potential threat is first detected, the city's Emergency Operations Center (EOC) is activated to a level appropriate to the magnitude of the event. The Irwindale EOC is organized in accordance with the California Standardized Emergency Management System (SEMS) and has five standard functions, as detailed in the chart below.

The City's response effort is then initiated through the City Emergency Organization, which comprises designated Emergency Support Function (ESF) Coordinators from tasked city departments, non-governmental organizations, and volunteer organizations.

CivicReady is an alert notification system used by the City to issue urgent notifications, critical information, emergency instructions, public safety warnings, and other communications to subscribed users via email, text message, and voicemail. Non-English speakers have the option of automatically translating messages into one of over 100 languages.

CivicReady



EMERGENCY PREPAREDNESS RESOURCES

The City also encourages residents and businesses to be prepared for natural or major disasters by providing education and awareness on the city's Emergency Preparedness webpage (https://www.irwindaleca.gov/118/Emergency-Preparedness). The City recommends that everyone be prepared to provide for their care and safety before and after a hazard or emergency event through proper planning and preparedness. The city's Emergency Preparedness webpage includes information related to different types of hazards, such as an earthquake preparedness flyer from LACoFD, as well as links and resources to other local, state, and federal agency emergency preparedness guides.

MUTUAL AID AGREEMENTS

The City currently maintains inter-agency cooperation agreements for police and fire services with the cities of Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, La Puente, La Verne, Monrovia, Pomona, Rosemead, San Dimas, Sierra Madre, South El Monte, Temple City, Walnut and West Covina.

HAZARD MITIGATION PLAN

In 2014, the City adopted the Hazard Mitigation Plan, developed in accordance with the Disaster Mitigation Act of 2000 (DMA 2000) and guidance from FEMA's Local Hazard Mitigation Plan. The Hazard Mitigation Plan identifies hazards, potential losses, mitigation needs, goals, and strategies for the Mitigation Planning process. In addition to profiling hazards in the city, the Plan offers an inventory of critical assets, assesses risks, and provides a vulnerability analysis. Implementing the mitigation strategies outlined in the plan, which include short- and long-term strategies, involves planning, policy changes, programs, projects, and other activities. Many of these mitigation measures have been incorporated into the goals and policies of this Safety Element.

Key Findings Related to Emergency Preparedness

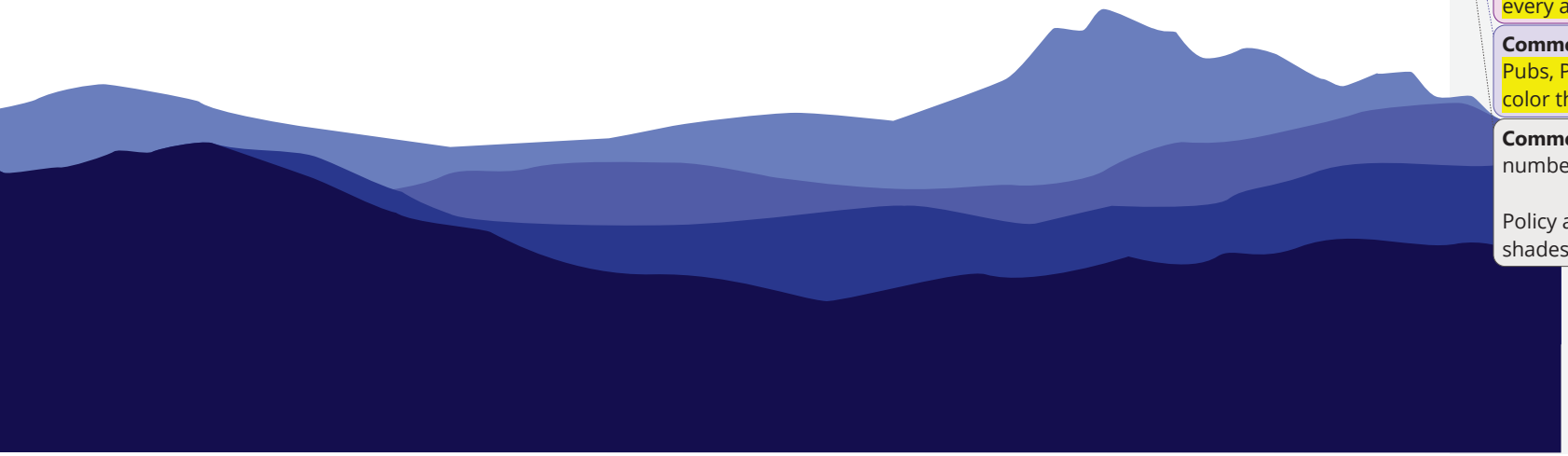
- Irwindale has a robust emergency management system in place.
- Irwindale engages in partnerships with neighboring communities and county agencies to collaboratively reduce exposure to hazards and ensure effective response and quick recovery following an incident.

- The City encourages residents and business to be better prepared for disasters through education and preparedness programming.

Community Feedback

- The City released a community survey to elicit input on topics related to natural disasters to get a better understanding of how the City can improve safety in Irwindale.
- Employee respondents indicated that increased law enforcement presence will be helpful in responding to future emergencies and hazards.
- There was no other community input regarding hazards related to emergency preparedness systems and related efforts in Irwindale.

SECTION 3 Goals, Policies, and Actions



Commented [SP2]: TO ESA TEAM: Please do not add bolded titles to goals/actions. It is my understanding that we are only adding titles to policies. Please remove.

Commented [SP3R2]: SHANNON: Please confirm actions do not need titles.

Commented [SP4R2]: Publications: Global edit, actions should be consistent with associated policies. Ex. Instead of 15.A, should be 15.1A and lettering restarts for every action under a new policy

Commented [SW5R2]: Confirmed – Also, Pubs, Please make Action headers a different color than policies

Commented [JM6R2]: Leaving action numbering (to match EJ Element).

Policy and Action labels are already different shades of purple. ☺

Air Quality

Goal SAF1.
A safe environment with quality air that ensures a healthy and sustainable quality of life for current and future generations.

Policy SAF1.1

Air Quality Planning and Collaboration. Continue to participate in regional planning efforts led by the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) to develop and implement strategies for improving air quality and mitigating pollution from freight, truck traffic, industrial facilities expansions, and other land uses that contribute to poor air quality.

Resource Management Element Policy 23: *The City of Irwindale will actively participate in decisions on the site or expansion of facilities of land uses (e.g., freeway expansions), to ensure the inclusion of air quality mitigation measures.*

Action SAF1.A

Monitor Assembly Bill (AB) 617 Community Air Protection Program implementation in nearby communities (East LA/Boyle Heights/West Commerce and San Bernardino/Muscoy) that affect local and regional air quality, including particulate matter. As feasible, participate in stakeholder discussions for AB 617 communities that may influence air pollution in Irwindale.

Action SAF1.B

Seek opportunities for City leadership and staff to participate in the San Gabriel Valley Council of Governments' programs for monitoring and improving air quality (such as the Public Works Working Group and the Energy, Environment, and Natural Resources Committee, which receives regular updates from the SCAQMD on regional programs, projects, and incentives). Additionally, lend support to the COG's legislative priorities for increasing funding for pollution reduction and locally-based air quality programs.

Policy SAF1.2

Air Quality Monitoring. Continue to monitor air quality through the city's Aquatic Centers' outdoor programming and ensure readings are accessible on the City's webpage for community members to be informed of elevated risks and poor air quality days. Ensure that community members have access to information on daily air quality levels and safety measures for days with elevated exposure.

See the Resource Management Element for related policies on air quality.

Resource Management Element Policy 30: *The City of Irwindale will provide regional and local air quality information on the City's website, including the SCAQMD's 1-800-CUT-SMOG number for the public to report air pollution complaints to the SCAQMD.*

Resource Management Element Policy 22: *The City of Irwindale will facilitate communications among residents, businesses, and the South Coast Air Quality Management District (SCAQMD) to quickly resolve air pollution nuisance complaints. The City will distribute information to advise residents on how to register a complaint with SCAQMD (SCAQMD's — "Cut Smog" program).*

Action SAF1.C

Track reporting of average air quality levels for ozone and particulate matter through the USEPA AQI on a monthly basis to develop a long-term tracker for assessing trends in local air quality levels. (Currently use the South Coase Air Quality Management District App to track daily air quality. Aquatics Division puts up a flag outside its building to inform the community of the air quality [green, yellow, orange, red]. Aquatics closes if air quality is red.)

Policy SAF1.3

Climate Action and Adaptation. Develop a climate action and adaptation plan to bring the city into compliance with state carbon emission reduction mandates, further improve air quality conditions and increase community resilience, particularly for vulnerable populations who are most at risk to the impacts of climate change.

Resource Management Element Policy 19: *The City of Irwindale will consider environmental justice issues as they are related to potential health impact associated with air pollution and ensure that all land use decisions, including enforcement actions, are made in an equitable fashion to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location from the health effects of air pollution.*

Action SAF1.D
Seek grant funding to support the preparation of a climate action and adaptation plan. Work with local and regional agencies to identify funding opportunities for local governments.

Policy SAF1.4
Local Health Services. Seek partnerships with local health departments and health care agencies to inform community members of physical and mental health impacts relating to air pollution and expand awareness support programs that provide resources and services to community members, such as health screenings, air filters, and smoking cessation.

Action SAF1.E
Track public health data through annual reporting from the CDC to monitor respiratory illnesses (asthma, bronchitis, pulmonary diseases, pneumonia, and other infections), cardiovascular illnesses (heart disease, heart failure, and cardiac arrest), non-skin cancers, and low birth-weight of infants, in order to track conditions over time and for use in comparing with air quality trends (see **Action SAF1.C**).

Action SAF1.F
Expand the existing Resident Benefit program to provide educational resources from local hospitals, clinics, and other health organizations for increasing safety to air pollution, especially during periods of Moderate to Hazardous air quality, as reported by the AQI.

Goal SAF2.
A community with complementary uses that reduce air pollution exposure and prioritize the health and safety of people and the environment.

Policy SAF2.1
Sensitive Uses near Pollution Sources. Require new residential developments and sensitive uses (e.g., schools, daycares, community centers, senior centers, parks) in proximity to pollution sources to incorporate design elements that provide mitigation or buffers, such as urban greening and landscaping, air conditioning, and ventilation. Where feasible, expand requirements for existing developments to incorporate such design elements.

See the Resource Management Element for additional policies relating to air quality.

Resource Management Element Policy 21: *The City of Irwindale will encourage the applicant for sensitive land uses (e.g., residences, schools, daycare facilities, playgrounds, and medical facilities) to incorporate design features (e.g., pollution prevention, pollution reduction, barriers, landscaping, ventilation systems, or other measures) in the planning process to minimize the potential pollution impacts on sensitive receptors.*

Action SAF2.A

Update design guidelines to facilitate sustainable landscaping and promote greater density of urban greening, with increased minimum landscaping requirements and promotion of integrated natural solutions. Create design templates and a checklist to accompany guidelines for sustainable materials.

Policy SAF2.2

Protection from Polluting Sites. Implement pollution mitigation measures to protect community members against air pollution from industrial and commercial uses, including the use of natural buffers, urban canopy, and air filtration. Prioritize residential areas and sensitive uses that are in proximity of industrial land uses.

See the Hazardous Materials section for additional information and policies.

Policy SAF2.3

Natural Buffers in New Developments. Require natural buffers in new industrial developments and along designated truck routes to separate polluting sources from residential and commercial uses, and other sensitive uses, to maximize their protection and reduce pollution exposure to the community.

Action SAF2.B

Evaluate existing, designated truck routes to prioritize locations for new and improved buffers, prioritizing routes near residential and sensitive uses, including homes, community centers, parks, and other social gathering places.

Policy SAF2.4

Residential and Industrial Interface. Protect existing residential neighborhoods from industrial land use activities that may affect public health and air quality through added adequate landscaping, urban greening, and ventilation systems to minimize negative impacts to surrounding neighborhoods and development.

Goal SAF3.
A community that maximizes natural elements in design and infrastructure to promote quality air and mitigate pollution.

Policy SAF3.1
New Parks. Promote the creation of new parks, including pocket parks, with a mix of amenities (trees, trails, ponds, exercise equipment, benches, picnic tables), throughout the community, with priority for areas with residential and sensitive uses such as community centers, social gathering places, and schools. Ensure new park sites are environmentally safe from hazards prior to development.

Action SAF3.A
Identify potential sites within existing parks or the public right-of-way for new tree plantings in the western and northern areas of the city, where there is currently lower existing tree canopy and where there is greater exposure to pollution from major corridors. Prioritize tree plantings in residential areas including parkways along I-605, I-210, Arrow Highway, Rivergrade Road, Los Angeles Street, Buena Vista Street, Azusa Canyon Road, and northern Irwindale Avenue.

Policy SAF3.2
Preservation of Parks and Open Spaces. Preserve existing parks and open space areas, including the Santa Fe Dam Recreation Area, from development.

Policy SAF3.3
Private Open Spaces. Develop incentives for private businesses and properties to engage in voluntary creations of open spaces and new tree plantings that promote good air quality.

Drought

Goal SAF4.
A sustainable current and long-term supply of water resources that meet domestic, industrial, and recreational needs.

Policy SAF4.1
Interagency Collaboration. Participate in coordinated local, regional, and statewide water planning programs to support water management, conduct monitoring for groundwater, and improve water resiliency for all users.

Action SAF4.A
Continue to support the development and implementation of the Upper San Gabriel Valley Municipal Water District Urban Water Management Plan, for long-term resource planning and storage of water supplies to meet existing and future needs.

Action SAF4.B
Seek opportunities to participate in regional initiatives through the San Gabriel Valley Council of Governments', including the Water Committee and Water Working Group. Remain informed of local and regional water initiatives to improve watershed management and water resiliency.

Policy SAF4.2
Potable Water Conservation. Encourage the use of provisions that conserve potable water for domestic uses. Small-scale interventions for conservation of potable water include watershed restoration, resources for sustainable landscaping, and other home-based interventions.

Policy SAF4.3
Interagency Collaboration for Water Conservation. Coordinate with local, state, and federal agencies and other local nonprofits to identify and obtain sources of funding for water conservation efforts.

Policy SAF4.4
Water Resource Protection Partnerships. Partner with local organizations, agencies, and water purveyors that service Irwindale to protect groundwater and surface water resources that are vulnerable to climate change and to ensure a safe and reliable supply of water for future generations.

Action SAF4.C
Implement green infrastructure measures (e.g., greenways, community forest, linear parks, vegetated swales, miniparks) to be incorporated into all new development and redevelopment applications to facilitate groundwater recharge. This includes all projects (four units or fewer) that have a land disturbance activity and add, create, or replace more than 500 square feet of impervious area.

Policy SAF4.5
Compliance with LA County Building Code. Ensure that city's building, zoning, and subdivision ordinances remain in compliance with LA County Building Code.

Action SAF4.D
Create city programs as feasible to incentivize the use of reclaimed wastewater, water conserving appliances, drought-tolerant landscaping, and other water conservation techniques.

Action SAF4.E
Install drought-tolerant landscaping at City-owned facilities within the next 5 years.

Goal SAF5.
A community that is educated about the effects of drought.

Policy SAF5.1
Water Conservation Education. Support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

Action SAF5.A
Collaborate with the Upper San Gabriel Valley Municipal Water District, Valley County Water District, Azusa Light and Water, and California American Water to develop an educational program to inform residents and employees of the status of the drought and water supply in the state and city, the importance of conservation (and how to conserve) as well as maintaining personal household and/or business emergency water supplies. Components of this program may include informational flyers, community workshops, and participation at community events.

Extreme Weather

Goal SAF6.
A resilient community with effective adaptation measures to address extreme weather hazards.

Policy SAF6.1

Extreme Weather Safety. Reduce the impacts of extreme weather on people and places through safe buildings, public shelters, cooling centers, sustainable materials, tree canopy, and other measures that promote safety and mitigate hazards.

Action SAF6.A

Review current design guidelines for areas of opportunity to increase standards that promote urban heat mitigation (see **Action SAF2.A**).

Action SAF6.B

Seek funding opportunities for climate adaptation to reduce the urban heat island effect with natural solutions and green infrastructure, such as increasing urban tree plantings, greenways, landscaping, cool roofs, cool pavements, green walls, and other elements that help increase cooling in the community and reduce hazards to people from heat impacts.

Action SAF6.C

Promote local and regional agency and utility programs (such as the Efficient San Gabriel Valley (eSGV) Program, EASY Program assessment, and SGV GO Green) that provide assessments and assistance to businesses, schools, and households for weatherization improvements, including insulation, air sealing, window and door replacements, air filter replacements, window shading, and other methods.

See the Housing Element for related policies on extreme weather.

Housing Element, Program No. 9: *Promotion of Energy and Water Conservation to Existing Residents and in City Sponsored Housing Projects.*

Policy SAF6.2

Public Improvements. Enhance existing community infrastructure and amenities, including bus shelters, shading trees, landscaping, public streets, and public facilities, to promote safety and relief from extreme weather hazards. Prioritize improvements to infrastructure that is older or in poor quality or has heat-absorbing materials.

Action SAF6.D
Adopt and enforce the latest building and municipal codes to increase resiliency of the built environment in Irwindale and minimize impacts from extreme weather hazards on people, property, and life.

Action SAF6.E
Install weatherproof shelters, such as awnings and sunshades, and increase tree canopy in the public right of way that protect residents and visitors from extreme weather, including heat, rainfall, and wind, and that help reduce the urban heat island effect. Prioritize locations for improvements (such as transit stops, active transportation corridors, pedestrian paths, bike lanes, safe routes to school, and outdoor gathering spaces) by assessing level of use and potential benefit to users through community outreach and engagement.

Action SAF6.F
Identify facilities where cool roofs, green roofs, and/or green facades can be installed to help reduce the urban heat island effect and daytime temperatures. Seek grant funding for planning and implementation of urban heat island mitigation projects.

Goal SAF7.
A community with parks and open spaces, greenways, and trees that help to reduce the urban heat island effect, mitigate extreme heat, and reduce impacts to the community.

Policy SAF7.1
Urban Greening Amenities. Increase parks, open space amenities, and tree canopy in residential and commercial areas and near schools, community centers, and other social gathering areas.

See Environmental Justice – Public Facilities for additional information on parks, open spaces, and tree canopy.

Action SAF7.A
Identify park needs in the community, assessing residential neighborhoods that are farther than a half-mile or 10-minute walk from a park or open space area.

Action SAF7.B
Maintain a list of drought-tolerant and heat-resistant trees that are suitable for planting for Southern California's weather and soil conditions. Consider partnerships with local and regional organizations for the success of the urban canopy, including the Arbor Day Foundation and TreePeople.

Action SAF7.C
Develop guidelines to support "right tree, right place" plantings, where appropriate and approved species are planted according to best practices to avoid conflicts with power lines, buildings, sidewalks, and other issues that risk long-term success of the urban canopy. Consider the space, height, canopy spread, shape, growth rate, growth requirements, and maintenance requirements of trees for plantings.

Flooding

Goal SAF8.
A community that is protected from flood hazards, with adequate safety protections in areas subject to inundation.

Policy SAF8.1
Annual Flood Hazard Mapping. Maintain current floodplain mapping, data, and information throughout the city on a yearly basis, using the latest information available from FEMA.

Policy SAF8.2
Development within Flood Hazard Areas. Require development within mapped flood hazard areas to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life loss resulting from flood hazards.

Policy SAF8.3
New Development. Require new development to incorporate low-impact designs and nature-based solutions to minimize stormwater impacts on drainage and flood control facilities and promote groundwater recharge, where feasible.

Policy SAF8.4
Storm Drain Master Plan. Prepare, evaluate, and implement the storm drain master plan study to look for and address deficiencies in the storm drain infrastructure.

Action SAF8.A
Prioritize storm drain studies and maintenance on areas that are identified for disaster relief such as the Senior Center & Dan Diaz Recreation Center.

Goal SAF9.
Minimized personal injury and property damage losses resulting from dam failure.

Policy SAF9.1
Dam Failure Inundation Mapping. Work with the US Army Corps of Engineers and Los Angeles County Flood Control District to maintain and expand dam failure inundation area mapping, as relevant to the City of Irwindale.

Policy SAF9.2
New Development in Dam Failure Inundation Areas. Minimize development in areas at risk of dam-inundation, to the extent possible, in order to protect public safety and reduce potential property damage due to dam-failure-induced flooding.

Action SAF9.A
Develop a local dam failure evacuation plan in cooperation with the Los Angeles County Flood Control District and US Army Corps of Engineers.

Action SAF9.B
Identify secondary evacuation routes that are susceptible to dam-failure-related impacts to ensure adequate evacuation access is available

Action SAF9.C
Amend the zoning ordinance to create provisions that protect or restrict sensitive uses (e.g., schools, daycares, community centers, senior centers, and parks), and critical uses (e.g., emergency service facilities, public utilities, or communications facilities) within flood hazard areas and designated dam inundation areas.

Action SAF9.D
Identify and retrofit existing city assets that are subject to dam failure.

Policy SAF9.3
County Coordination. Work with Los Angeles County Parks and Recreation to protect recreational uses around the Santa Fe Dam Recreation Area from dam-failure-related flooding.

Policy SAF9.4
Interagency Cooperation for Flood Standards and Regulations. Cooperate with the Los Angeles County Flood Control District, Federal Emergency Management Agency, and US Army Corps of Engineers every 5 years in preparing and implementing flood standards and regulations.

Geologic and Seismic Hazards

Goal SAF10.
community protected from seismic and geologic hazards that ensures public health and safety as well as city infrastructure and services are maintained.

Policy SAF10.1
Building Codes. Ensure that new and retrofitted buildings comply with the most recently adopted applicable city, county, and state building codes governing seismic safety to minimize the potential for damage from earthquakes.

Policy SAF10.2
Geotechnical Study. Require detailed geologic, geotechnical, or soil investigations in areas of potential seismic or geologic hazards as part of the environmental and/or development review process.

Policy SAF10.3
Structural Hazards. Mitigate structural hazards related to seismic events through appropriate methods such as excavating and refilling land with engineered fill, slope stabilization, and other appropriate mitigation.

Action SAF10.A
Implement slope stabilization projects in the highest risk areas, particularly around the existing 17 mines in the city.

Policy SAF10.4
Critical Facilities. Ensure that police and fire stations, emergency operations centers, communications centers, reservoirs, medical facilities, and other essential structures and facilities located in geologic and seismic hazard areas remain safe and in a state of readiness for earthquakes.

Action SAF10.B
Retrofit City-owned critical facilities and buildings to increase their capability to withstand earthquakes.

Policy SAF10.5
SMARA Regulations. Continue to enforce Surface Mining and Reclamation Act (SMARA) regulations with regard to the mining pits in the city to ensure proper handling of slopes, mining depths, runoff, environmental impacts, and the filling and ultimate development of the site.

See the Resource Management Element for related policies on mining and reclamation.

Resource Management Element Policies:

The City will consider the establishment of a systematic environmental monitoring program for mining and landfill operations, and for the strengthening of the existing annual inspection program, including assessments of slope stability, public safety hazards, air and water quality, noise, and security.

The City will continue to pursue alternative means to secure adequate financial assurances from mining operator's, through its Joint Powers Authority composed of the City and its Community Development Agency, which benefit from using anticipated fill revenues to offset the amount of financial assurances required to be posted, as well as maintenance of its reclamation fund to further secure reclamation obligations.

The City will revise the zoning code to specify post-mining land use designations, with a quarry overlay zone to establish uniform mine operation and reclamation standards.

The City will implement improved reclamation planning at targeted sites to ensure post-mining land uses consistent with the City's long-term planning and economic development goals.

The City should implement all available measures to update and improve reclamation planning for new entitlements, and to address inadequacies in current reclamation plans. These actions may include more vigorous requirements for identifying end uses and detailed standards for related slope, vegetation, and infrastructure actions for reclamation, and more accurate determination of financial assurances.

Hazardous Materials

Goal SAF11.
A safe and healthy Irwindale that minimizes public health risks and threats from hazardous materials and wastes.

Policy SAF11.1
Hazardous Materials Risk Reduction. Continue coordination with the Los Angeles County Fire Department to reduce the risk of hazardous materials accidents through conscientious land use planning.

Policy SAF11.2
Hazardous Materials Businesses. Improve intentional and safe siting of businesses that use, store, or transport hazardous materials and waste near residential neighborhoods and sensitive areas unless mitigation measures comply with Los Angeles County Fire Department standards.

Policy SAF11.3
Hazardous Materials Handlers. Continue to require businesses, such as CleanTech Environmental, that store, generate, use, or transport large or toxic quantities of hazardous materials or wastes to comply with Los Angeles County Fire Department standards.

Policy SAF11.4
Household Hazardous Waste. Encourage the proper reduction of household hazardous waste and disposal through comprehensive public education, recycling efforts, and collection programs.

Policy SAF11.5
Transportation. Work with governmental agencies, such as Caltrans and the San Gabriel Valley COG, to ensure that transporters of hazardous materials and wastes redesignate truck routes away from residential neighborhoods and sensitive areas where spills may occur.

Action SAF11.A
Identify and establish specific travel routes for the transport of hazardous materials and wastes, focusing on the capacity to safely accommodate additional truck traffic, avoidance of residential neighborhoods and areas, and use of interstate or state highways as preferred routes.

Policy SAF11.6
Hazardous Waste Spills and Cleanup. Continue to proactively contain and supervise the cleanup of spills on city streets, catch basins, storm drains, and storm channels, and work with property owners to reduce hazardous materials accidents.

Action SAF11.B
Post informational resources on the City's website that link to the websites of the county, state, and federal agencies that regulate hazardous materials.

Action SAF11.C
Create a program to work with property owners to identify hazardous materials risks and ensure remediation of hazardous building materials such as asbestos and lead.

Policy SAF11.7
Certified Unified Program Agency (CUPA) Coordination. Continue to work with the Los Angeles County Fire Department to administer and enforce state and federal hazardous materials regulations.

Action SAF11.D
In cooperation with the CUPA, inventory and regularly inspect buildings and facilities in which hazardous materials accidents would pose a threat to the community. Work with the owners to develop and implement programs for reducing risks associated with these buildings and facilities.

Policy SAF11.8
Existing Mining Pits. Identify and publicize the status of the mining pits in the city.

See the Resource Management Element for related policies on mining and reclamation.

Resource Management Element Policies:

The City of Irwindale will continue to work with the mine operators and other regulatory agencies to facilitate their reclamation.

The City of Irwindale will require that ongoing mining activities adhere to any pertinent regulatory controls as a means to protect the public's safety and health.

The City of Irwindale will work with the quarry owners and/or operators and regulatory agencies to help facilitate their timely reclamation.

The City of Irwindale will continue to protect the use of the area's resources through appropriate land use controls and planning.

Action SAF11.E
Require the planned reclamation of the mining pits with consideration of the land's potential for recreational, scenic uses, residential, or commercial development.

Action SAF11.F
Seek grant opportunities and partnerships with state and federal agencies (e.g., U.S. Environmental Protection Agency) to expedite the full cleanup of the remaining sites.

Action SAF11.G
Ensure all necessary City staff has Surface Mining and Reclamation Act (SMARA) training to address hazardous materials releases created through mining operations to help ensure that potential hazards are mitigated at the source.

Action SAF11.H
In conjunction with **Action SAF11.B**, create a City website that lists the mining pits, operation status, reclamation plans, and other applicable information for residents to access and be aware of the operational timeline of the mining pits.

Action SAF11.I
Require that all mining operations are adequately reviewed during the reclamation and closing processes to minimize, to the greatest degree possible, all identified impacts, especially impacts to water quality.

Law Enforcement and Crime

Goal SAF12.
A resourced police department with sufficient staffing, equipment, resources, and readiness to address crime, respond to local emergencies, and increase community safety.

Policy SAF12.1

Police Services Management. Continue regular review of staffing, equipment, and resources of the police department to ensure continuous and responsive service for law enforcement, crime reduction, monitoring, investigations, emergency, and other critical operations. Identify potential gaps and needs to carry out services and prioritize capacity-building for the Irwindale Police Department to be able to respond to crime reports and increase safety.

Action SAF12.A

Review existing mutual aid agreements with partnering agencies providing police and fire services from city departments to assess the need for increased support to reduce crime in the city. Current mutual aid agreements are in place with the cities of Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, La Puente, La Verne, Monrovia, Pomona, Rosemead, San Dimas, Sierra Madre, South El Monte, Temple City, Walnut, and West Covina.

Commented [TO7]: Need to verify that we have agreements with all of these agencies.

Commented [SP8R7]: **NOTE TO CITY:** Please review the revisions here. This action was updated to reflect mutual aid agreements described in the email provided by Lisa and Irwindale PD on 1/31.

Action SAF12.B

Assess Police Department resources and support needed for clearing and/or closing crimes and increasing percentage of crimes cleared. Consider staff capacity, tools, funding, and other resources that may pose barriers for addressing safety and crime in the community.

Policy SAF12.2

Patrolling and Surveillance. Evaluate need for increased patrolling and surveillance through additional officers or increased frequency of patrols using crime reports and feedback from the community to enhance safety in areas of concern within the city.

Action SAF12.C
Engage with local businesses, employers, organizations, schools, neighborhood groups, and other community members through public workshops to hear community concerns regarding perceptions of unsafe areas in Irwindale, and discuss increasing surveillance and patrolling such as Neighborhood Watch and Business Watch.

Action SAF12.D Conduct a yearly evaluation of local businesses' reliance on police services to assess their usage levels. If certain businesses consistently demand a disproportionate share of police time and resources, require them to employ private security.

Policy SAF12.3
Business Watch. The Irwindale Police Department will establish and facilitate a Business Watch Program to promote crime prevention, community engagement, and emergency preparedness among businesses within Irwindale.

Action SAF12.E Designate a city official or law enforcement liaison as the point of contact for Business Watch Groups.

Action SAF12.F Establish a dedicated communication channel for reporting incidents and feedback from community members.

Action SAF12.G Provide training sessions on crime prevention, emergency preparedness, and other relevant topics for Business Watch members.

Action SAF12.H Promote the Business Watch Program through public awareness campaigns, social media, and local news outlets, encouraging participation and community support.

Action SAF12.I Schedule regular meetings to discuss safety concerns, share information, and incorporate community and law enforcement feedback.

Goal SAF13.
An engaged and responsive community that contributes to reporting, information sharing, and crime reduction.

Policy SAF13.1
Voluntary Reporting. Maintain voluntary crime reporting from the Police Department to the FBI for federally monitored offenses, including violent crime, property crime, arson, burglary, larceny-theft, and hate crime to help evaluate trends over time.

Policy SAF13.2

Police and Community. Continue to build positive relationships between community members and the Irwindale Police Department through programs, mentorship, education, and events that provide opportunities for engagement and connection.

Action SAF13.A

Involve the Police Department in community events and programs where officers can engage with community members on information, discussions, and other activities that promote a positive relationship and increase the sense of safety.

Action SAF13.B

Conduct regular (monthly, bi-monthly, or quarterly) meetings at public facilities, such as the community center, parks, and city facilities that are near residential neighborhoods and places of employment, to share updates on crime and hear community member concerns.

Action SAF13.C

Implement the Park Watch Program to support residents with regular maintenance and patrolling of parks and open spaces. Assess feasibility to implement an **Adopt-a-Park** program under the Park Watch and in collaboration with the Neighborhood Watch, to allow individual neighborhoods, businesses, and organizations to assist with park maintenance, identifying improvements and financing, and security.

Policy SAF13.3

Public Alerts. Maintain the CivicReady service for public alerts, warnings, events, and other information that promote safety and foster a positive relationship between law enforcement and community members.

Goal SAF14.
A built environment that improves public safety, discourages, and prevents crime, and instills a sense of community ownership for people and property in Irwindale.

Policy SAF14.1

Urban Design. Promote the design of safe neighborhoods to enhance public safety and discourage crime. Require that buildings, streets, and public spaces be designed with safety elements, including lighting, as well as "eyes on the street" and "crime prevention through urban design" features such as gathering areas, sidewalks, walkways and bicycle lanes, street-fronting uses, large and open windows, attractive designs, and other elements that help to connect people in public spaces and maintain public sight.

Action SAF14.A

Create citywide objective design standards that address crime prevention through urban design. In the interim, require the following for new developments:

- Require buildings to orient toward public areas, including the street, where they can facilitate surveillance of exterior areas. Ensure doorways, entryways, and emergency exits are located where they are visible to other people and properties.
- Require that new developments expand open spaces and social gathering areas in the city, including plazas, outdoor eating, farmer's markets, and other public uses and activities that bring people together and foster community ownership.
- Ensure that new tree plantings and landscaping maintain sight lines and do not block visibility. Low hedges, flowerbeds, and tall trees can help maintain sight lines of entryways, streets, and properties (see **Actions SAF2.A** and **SAF6.A**).
- Require businesses to adequately maintain landscaping in and along their property, particularly overgrown palm trees.

Policy SAF14.2

Safe Public Events. Promote events and social gathering in public spaces in the city to help with "eyes on the street." Encourage shared use of public facilities, including parks, playgrounds, open spaces, and parking lots.

Policy SAF14.3

Implementation of Safety Features. Identify areas of the city in need of additional safety features, including lighting and surveillance technology. Prioritize areas of employment, residential neighborhoods, schools, major roads, and alleyways.

Adopt-a-Park is a collaborative effort between the County of Los Angeles Department of Parks and Recreation, the Los Angeles County Parks Foundation, a 501(c)(3) non-profit foundation, and the private sector for the purpose of adopting a new or existing scholastic, recreational, beautification, maintenance project, or unmet needs project for any park, hiking trail, nature area, or garden in Los Angeles County or unincorporated area.

Involvement from the City of Irwindale will enhance visibility and promote the City's commitment to meeting the needs of the residents who utilize county parks. Funding augments, rather than supplants public funding. Adopt a Park programs have a significant impact within communities that implement them.

Adopt-a-Park

Action SAF14.B
Assess current street lighting fixtures, with focus on industrial areas, residential neighborhoods, active transportation routes, commuting routes, parking lots, and routes to school, to prioritize needs for increased and/or improved lighting and help deter theft. Identify number, location, and quality of fixtures to help determine where new fixtures may be beneficial.

Action SAF14.C
Ensure that minimum standards for streetlights are met, and update standards as necessary for implementing best practices for safety lighting.

Wildfire

Goal SAF15.
A city where residents and businesses are safe from wildfires and are prepared for the hazard associated with wildfire spread.

Policy SAF15.1
Fire Prevention and Suppression Needs. Coordinate with Valley County Water District, as well as other water service providers within the city and neighboring cities and fire agencies in neighboring cities to plan for future fire prevention and suppression needs including identifying future water supply for fire suppression needs.

Policy SAF15.2
Emergency Evacuation Route Adequacy. Coordinate with state agencies and local fire districts to ensure the maintenance and reliability of current evacuation routes that may be compromised by wildfire, and publicly disclose development locations without sufficient emergency route access or capacity.

Policy SAF15.3
Maintenance of Emergency Evacuation Routes. Proactively manage vegetation along roadsides of emergency/evacuation routes to prevent wildfires.

Policy SAF15.4
Fire Codes. Ensure that the latest versions of regional and state Fire Codes are adopted and enforced to build resiliency and minimize the potential for damage, personal injury, and loss from fire hazards.

Action SAF15.A
Update local zoning and subdivision codes to designate wildfire hazard overlay zones that are designated by CAL FIRE as VHFHSZs to ensure new development within the overlay will meet all state and local requirements for building and vegetation management. Update, as necessary, associated conditional use, site development standards, and design criteria to mitigate wildfire hazards and reduce hazards to new development within the overlay zones.

Policy SAF15.5
Consistency with California Codes. Ensure that new residential, commercial, and industrial construction and development maintain consistency with California Code of Regulations Title 14, Natural Resources, Division 1.5, Department of Forestry, Chapter 7, Fire Protection.

Action SAF15.B
Review and update the city's municipal code as necessary to bring it into compliance with California Code of Regulations Title 14, Natural Resources Division 1.5, Department of Forestry, Chapter 7, Fire Protection.

Action SAF15.C
Adopt the most recent County of Los Angeles Fire Department Strategic Fire Plan.

Policy SAF15.6
Existing Structures in VHFHSZ. Support the retrofitting of existing structures in VHFHSZs built prior to modern fire safety codes or wildfire hazard mitigation guidance to help reduce the hazard of structural and human loss due to wildfire.

Action SAF15.D
Prioritize public and private funding for fire risk reduction to assist private landowners in implementing safety measures to achieve a low-hazard condition, specifically for businesses within or near VHFHSZs in the city.

Policy SAF15.7
Development in the VHFHSZ. Avoid or minimize new residential development in the VHFHSZ. If new development occurs within or near the VHFHSZ, ensure projects comply with all applicable state or local fire safety and defensible space regulations or standards, and any applicable fire protection or hazard-reduction measures identified in locally adopted plans. Discourage land uses that could exacerbate the hazard of ignitions in the VHFHSZ, such as outdoor storage of hazardous or highly flammable materials, automobile service stations, or gas stations.

Policy SAF15.8
New Development Fire Safety Standards. Require that all new development, including new development in the VHFHSZ, prepare a fire protection plan that complies with established fire safety standards. Require that ingress and egress routes be constructed using the most current state Fire Safe Regulations, Fire Code, and or City Code that meets these minimum requirements. Fire protection plans shall be referred to the appropriate fire agency and other public agencies for comment as to:

1) Risk analysis
2) Location of anticipated water supply
3) Adequacy of water supply for new development (i.e., maintenance and long-term integrity)

4) Adequacy of fire flow (gallons per minute) to extinguish a fire at the proposed development
5) Fire response capabilities including site design for fire department access in and around structures
6) Ability for a safe and efficient fire department response
7) Traffic flow and ingress/egress for residents and emergency vehicles
8) Mitigation measures and design considerations for non-conforming fuel modification
9) Potential impacts to emergency services and fire department response
10) Wildfire education maintenance and limitations

Policy SAF15.9

Proper Addressing and Signage. Implement proper addressing and signage for all streets and homes in compliance with the Los Angeles County Fire Department to assist in fire emergencies.

Policy SAF15.10

Vegetation Maintenance Agreement. Continue to require new development to enter into a long-term vegetation maintenance agreement with the City for defensible space and fuel modification.

Policy SAF15.11

Flammable Plant Species. Reduce highly flammable plant species that have a low drought tolerance and easily spread.

Action SAF15.E

Work with certified arborists or organizations to identify plant species that are highly flammable and pose hazard to the community, with an inventory of their location and hazard level. Prioritize more vulnerable locations (those within VHFHSZ to the north) for removal or replacement of flammable plant species to reduce the hazard of brush fires.

Action SAF15.F

Adopt a fire-resistant landscape ordinance to ensure existing flammable vegetation is removed and replaced with fire-adaptive landscaping.

Policy SAF15.12

Defensible Space. Ensure that defensible space is maintained around residential located in very high fire hazard severity zones, as per Los Angeles County Fire Department guidelines.

Policy SAF15.13

Fire Prevention Techniques. Preserve and maintain existing fire trails, defensible space and community fire breaks and maintain public and private road clearance.

Action SAF15.G
Coordinate with CAL FIRE, Fire Safe Councils, public works, fire districts, and other community organizations to ensure proper maintenance of fire breaks; seek funding opportunities (both federal and state), for fire breaks and their long-term maintenance.

Action SAF15.H
Work with the Los Angeles County Fire Department to maintain open spaces within and around the Santa Fe Dam Recreation Area and San Gabriel River Basin so that ground fuels do not promote the spread of wildfire and aerial fuels do not allow the spread of a fire through the tree canopy.

Policy SAF15.14
Location of Public Facilities. All essential public facilities shall be located outside high fire hazard areas, where feasible.

Policy SAF15.15
Non-Conforming Development. Mitigate existing non-conforming development to contemporary fire safe standards, in terms of road standards and vegetative hazards, as feasible.

Action SAF15.I
Identify existing non-conforming development, prioritizing sensitive uses within Very High Fire Hazard areas, and work with CAL FIRE to create a program for homeowners and business within these areas to bring their properties into conformance, learn about the fire hazard and how to reduce that hazard through fuel modification.

Emergency Preparedness

Goal SAF16.
A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage, and disruption to the social and economic life of the city.

Policy SAF16.1
Emergency Response Planning. In cooperation with City emergency response providers, maintain and regularly update emergency plans for floods, earthquakes, fires, hazardous materials, and other disasters. Plans should be consistent with the California Standardized Emergency Management System protocol.

Action SAF16.A
Review and update the city's Local Hazard Mitigation Plan every 5 years in accordance with federal planning regulations to reduce loss of life and property by minimizing disaster impacts, and ensure the City is eligible to access funding for disaster assistance, pre-disaster planning, and other grant programs for safe community planning.

Policy SAF16.2
Interagency Coordination. Cooperate with other public agencies, nearby cities, community groups, and private enterprises in developing comprehensive disaster preparedness, assistance, and post-disaster recovery plans in order to maximize mutual aid response. Actively collaborate with regional state and federal fire agencies to coordinate and implement wildfire mitigation measures. Participate in regularly scheduled disaster exercises and emergency response drills to better prepare Police, Fire, Public Works, and other city department employees for disaster response.

Policy SAF16.3
Private Sector Collaboration. Engage the private sector (business community) in disaster response planning and coordination through planning outreach and engagement that fosters stronger connections with the business community, increases information sharing on emergency management, and facilitates public-private partnerships. Ensure input from the business community informs the planning process, emergency response strategies, and post-disaster recovery efforts, including short- and long-term restoration of services and operations, and economic recovery.

Policy SAF16.4

Assessment of Future Emergency Service Needs. Prepare an assessment and projection of future emergency service needs as part of the city's future General Plan Land Use Element Update and Master Fire Plan, and ensure that future growth projections are coordinated with emergency and fire service capacity and delivery.

Policy SAF16.5

Post-Disaster Evaluation. Following disasters, conduct an evaluation of the extent of damage and the need for redevelopment, particularly after large fires.

Action SAF16.B

Ensure post-fire redevelopment complies with the most current version of the California Building Codes and California Fire Code.

Policy SAF16.6

Community Capacity. Involve volunteers, community groups, and civic organizations in emergency response activities, including planning and program development to prepare for disasters and disaster recovery. Individuals and businesses should have access to up-to-date information that allows them to engage with the City, regional agencies, and community-based organizations to expand communications, to coordinate hazard preparation and response, and be able to make informed decisions about potential safety hazards and the level of risk they are willing to accept.

Action SAF16.C

Collaborate with city departments and public service providers such as the Department of Public Works and the Los Angeles County Fire Department to implement hazard awareness, education, and preparation programming for Irwindale residents and businesses to learn about natural hazards, risks, and risk reduction strategies.

Action SAF16.D
Seek partnerships with neighboring jurisdictions and community-based organizations to develop a program for building community safety awareness, with an ongoing series of informational public meetings or seminars, and a community guide on disaster preparedness and procedures. The program should be about minimizing hazards in the home, wildfire mitigation and disaster planning, earthquake preparedness and housing retrofit programs, and developing disaster preparedness and evacuation plans. The program should be promoted through existing community newsletters and in the ongoing emergency preparedness column within the local newspaper.

Policy SAF16.7
Utilities. Work with local gas, electric, cable, water, sewer, and other utility providers to maintain their facilities and ensure their ability to function (or be quickly restored) during and following a disaster.

Policy SAF16.8
Critical Facilities. Ensure that critical public facilities and infrastructure that support community health and safety (such as police and fire stations, and water and sewer facilities) are designed to maximize their resilience and ability to function during and after a natural disaster.

Action SAF16.E
Collaborate with community-serving utilities and public facilities that are critical to effective disaster response and evaluate their ability to operate efficiently after a major disaster. Support and incentivize emergency action planning for these facilities to ensure they are well prepared for disaster and are accessible during emergencies. Work with the utilities and public facilities to designate alternative facilities for post-disaster assistance in the event that primary facilities are impacted.

Policy SAF16.9
Technology. Support the use of communication technologies to transmit information to other agencies and the public during emergencies, including:

- CivicReady emergency alert system.
- Social media operated by the Los Angeles County Fire Department, Irwindale Police Department, and other public safety agencies and municipalities.
- Other systems to provide outreach to residents without telephone or Internet service.

Policy SAF16.10
Emergency Evacuation. Ensure the transportation system provides adequate capacity for safe, efficient, and quick evacuations in the event of an emergency or natural disaster.

Action SAF16.F
Provide evacuation information to residents, businesses, and visitors, particularly at-risk populations, to help improve emergency preparedness. Evacuation materials should identify shelter locations, evacuation routes, defensible space and procedures for storing valuable items or taking such items with them.

Action SAF16.G
Continue to work with local emergency response providers in Irwindale to review, evaluate, and update emergency evacuation routes upon each update of the city's Safety Element or Local Hazard Mitigation Plan, as understanding of hazard impacts improve and climate change impacts continue.

Action SAF16.H
Upon the next update of the Local Hazard Mitigation Plan, update city maps that address the adequacy of evacuation routes and their capacity, safety, and viability in the event of natural hazards and other emergencies that meet Assembly Bill 747 requirements.

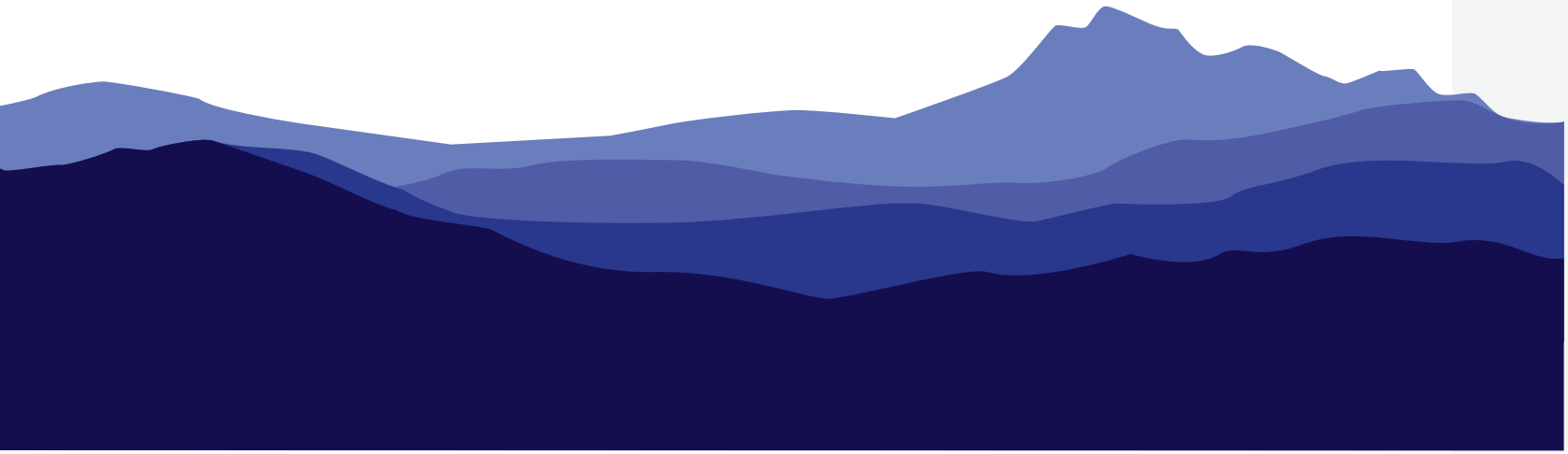
Action SAF16.I
Consider including the following actions in conjunction with established fire standards when formalizing plans for potential or imminent evacuation routes, particularly in the VHFHSZ:

- Increase capacity through use of contraflow lanes or shoulders
- Manage traffic control, including through turn restrictions and route or ramp closures, to minimize outflows from evacuation areas
- Prohibit or restrict street parking on high-hazard days
- Continually improve communication systems and implement strategies that improve disaster alerts
- Instigate dynamic route guidance and monitoring
- Implement phased evacuations
- Promote reductions in vehicle volumes during evacuations, such as by encouraging households to use only one vehicle to evacuate
- Closely monitor power issues that could affect traffic signals and slow down evacuations

Action SAF16.J
The Dan Diaz Recreation Center is designated as a disaster relief center for major disasters. The Senior Center is open as a disaster relief center during smaller emergencies and disasters such as storms and heat waves.

INTENTIONALLY BLANK

SECTION 4 Implementation



This section provides a framework for systematically implementing the actions associated with each policy presented in the Safety Element. It will be used during the City's planning and budgeting processes to understand safety priorities and how and when to effectively allocate funding and resources to achieve the city's safety goals. Collectively, these actions work to ensure that the City and community are prepared for a hazardous event and can effectively respond to and recover from a hazardous event. They also work to increase community safety and improve community health and resilience.

Table SAF-6 presents the implementing actions for the Safety Element. The actions are organized as presented in Section 3: Goals, Policies, and Actions.

Each of the components of the implementation table are described below.

Lead Agency. This column identifies the lead agency responsible for managing the implementation of the action. While other city departments may support its implementation, the lead agency is primarily responsible for determining next steps and moving the action forward and could include state agencies such as the California Air Resources Board.

Partnerships. This column identifies the local and regional agencies, city departments, and organizations that have authority, influence, or knowledge to assist with implementation of the associated action. In some cases, several coordinating partners are shown as there may be joint responsibility and/or interest for implementation.

Relative Cost. This column provides a relative cost for implementing the associated action using dollar signs ($). One dollar sign ($) indicates that the action is lower cost, based on the assumption that it would require the use of existing staff time. Two-dollar signs ($$) indicate the action may require additional time and resources, such as hiring new staff. Three-dollar signs ($$$) indicate the action may be part of a capital improvement project and/or include construction.

Implementation Timeframe. This column identifies the target timeframe for the action to be implemented. A "short" timeframe indicates the action should be implemented in the near term or within one to three years of adoption. A

"mid" timeframe indicates that the action should be completed within 3 to 5 years of adoption. A "long" timeframe indicates a period of 5 to 10 years or longer for implementation. The exact targeted time to complete an action will be determined during the City's planning and budgeting processes. An action referred to as "ongoing" indicates that the action should occur periodically.

TABLE SAF-6 **Action Implementation Information**

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Air Quality					
Goal SAF1. A safe environment with continuously good air quality (i.e., air quality index value of 50 or below) that ensures a healthy and sustainable quality of life for current and future generations.					
Policy SAF1.1: Air Quality Planning and Collaboration. Continue to participate in regional planning efforts led by the South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) to develop and implement strategies for improving air quality and mitigating pollution from freight, truck traffic, industrial facilities expansions, and other land uses that contribute to poor air quality.					
SAF1.A	Monitor Assembly Bill (AB) 617 Community Air Protection Program implementation in nearby communities (East LA/Boyle Heights/West Commerce and San Bernardino/Muscoy) that affect local and regional air quality, including particulate matter. As feasible, participate in stakeholder discussions for AB 617 communities that may influence air pollution in Irwindale.	Community Development Department	CARB, SCAQMD	$	Short
SAF1.B	Seek opportunities for City leadership and staff to participate in the San Gabriel Valley Council of Governments' programs for monitoring and improving air quality (such as the Public Works Working Group and the Energy, Environment, and Natural Resources Committee, which receives regular updates from the SCAQMD on regional programs, projects, and incentives). Additionally, lend support to the COG's legislative priorities for increasing funding for pollution reduction and locally-based air quality programs.	Administration Department	SGVCOG, Public Services Department, Community Development Department	$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF1.2: Air Quality Monitoring. Continue to monitor air quality through the city's Aquatic Centers' outdoor programming and ensure readings are accessible on the City's webpage for community members to be informed of elevated risks and poor air quality days. Ensure that community members have access to information on daily air quality levels and safety measures for days with elevated exposure.					
SAF1.C	Track reporting of average air quality levels for ozone and particulate matter through the USEPA AQI on a monthly basis to develop a long-term tracker for assessing trends in local air quality levels. (Currently use the South Coase Air Quality Management District App to track daily air quality. Aquatics Division puts up a flag outside its building to inform the community of the air quality [green, yellow, orange, red]. Aquatics closes if air quality is red.)	Community Development Department	Public Services Department (Recreation & Aquatics divisions), USEPA	$	Short
Policy SAF1.3: Climate Action and Adaptation. Develop a climate action and adaptation plan to bring the city into compliance with state carbon emission reduction mandates, further improve air quality conditions and increase community resilience, particularly for vulnerable populations who are most at risk to the impacts of climate change.					
SAF1.D	Seek grant funding to support the preparation of a climate action and adaptation plan. Work with local and regional agencies to identify funding opportunities for local governments.	Community Development Department	Public Works, SCAG, San Gabriel Valley Council of Governments	$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF1.4: Local Health Services. Seek partnerships with local health departments and health care agencies (such as Kaiser Permanente, Citrus Valley Health Partners, Irwindale Industrial Medical Clinic, Foothill Medical Clinic, and Trans-Valley Medical Clinic) to inform community members of physical and mental health impacts relating to air pollution and expand awareness of support programs that provide resources and services to community members, such as health screenings, air filters, and smoking cessation.					
SAF1.E	Track public health data in Irwindale through annual reporting from the CDC to monitor respiratory illnesses (asthma, bronchitis, pulmonary diseases, pneumonia, and other infections), cardiovascular illnesses (heart disease, heart failure, and cardiac arrest), non-skin cancers, and low birth-weight of infants, in order to track conditions over time and for use in comparing with air quality trends (see **Action SAF1.C**).	Community Development Department	CARB, SCAQMD	$	Short
SAF1.F	Expand the existing Resident Benefit program to provide educational resources from local hospitals, clinics, and other health organizations for increasing safety to air pollution, especially during periods of Moderate to Hazardous air quality, as reported by the AQI.	Administration Department	SCAQMD, CARB, Community Development Department	$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Goal SAF2. A community with complementary uses that reduce air pollution exposure and prioritize the health and safety of people and the environment.					
Policy SAF2.1: Sensitive Uses near Pollution Sources. Require new residential developments and sensitive uses (e.g., schools, daycares, community centers, senior centers, parks) in proximity to pollution sources to incorporate design elements that provide mitigation or buffers, such as urban greening and landscaping, air conditioning, and ventilation. Where feasible, expand requirements for existing developments to incorporate such design elements.					
SAF2.A	Update design guidelines to facilitate sustainable landscaping and promote greater density of urban greening, with increased minimum landscaping requirements and promotion of integrated natural solutions. Create design templates and a checklist to accompany guidelines for sustainable materials.	Community Development Department	LA County	$$	Short
Policy SAF2.2: Protection from Polluting Sites. Implement pollution mitigation measures to protect community members against air pollution from industrial and commercial uses, including the use of natural buffers, urban canopy, and air filtration. Prioritize residential areas and sensitive uses that are in proximity of industrial land uses.					
Policy SAF2.3: Natural Buffers in New Developments. Require natural buffers in new industrial developments and along designated truck routes to separate polluting sources from residential and commercial uses, and other sensitive uses, to maximize their protection and reduce pollution exposure to the community.					
SAF2.B	Evaluate existing, designated truck routes to prioritize locations for new and improved buffers, prioritizing routes near residential and sensitive uses, including homes, community centers, parks, and other social gathering places.	Public Services Department and City Engineering	SCAQMD EJ Department	$$	Short
Policy SAF2.4: Residential and Industrial Interface. Protect existing residential neighborhoods from industrial land use activities that may affect public health and air quality through added adequate landscaping, urban greening, and ventilation systems to minimize negative impacts to surrounding neighborhoods and development.					

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Goal SAF3. A community that maximizes natural elements in design and infrastructure to promote quality air and mitigate pollution.					
Policy SAF3.1: New Parks. Promote the creation of new parks, including pocket parks, with a mix of amenities (trees, trails, ponds, exercise equipment, benches, picnic tables), throughout the community, with priority for areas with residential and sensitive uses such as community centers, social gathering places, and schools. Ensure new park sites are environmentally safe from hazards prior to development.					
SAF3.A	Identify potential sites within existing parks or the public right-of-way for new tree plantings in the western and northern areas of the city, where there is currently lower existing tree canopy and where there is greater exposure to pollution from major corridors. Prioritize tree plantings in residential areas including parkways along I-605, I-210, Arrow Highway, Rivergrade Road, Los Angeles Street, Buena Vista Street, Azusa Canyon Road, and northern Irwindale Avenue.	Public Services Department	Community Development Department, Los Angeles County Parks and Recreation	$	Mid
Policy SAF3.2: Preservation of Parks and Open Spaces. Preserve existing parks and open space areas, including the Santa Fe Dam Recreation Area, from development.					
Policy SAF3.3: Private Open Spaces. Develop incentives for private businesses and properties to engage in voluntary creations of open spaces and new tree plantings that promote good air quality.					
Drought					
Goal SAF4. A sustainable supply of water resources that meet current and long-term community needs for domestic, industrial, and recreational needs.					
Policy SAF4.1: Interagency Collaboration. Participate in coordinated local, regional, and statewide water planning programs to support water management, conduct monitoring for groundwater, and improve water resiliency for all users.					
SAF4.A	Continue to support the development and implementation of the Upper San Gabriel Valley Municipal Water District Urban Water Management Plan, for long-term resource planning of water supplies to meet existing and future needs.	Public Works Engineering Department	Upper District	$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF4.B	Seek opportunities to participate in regional initiatives through the San Gabriel Valley Council of Governments', including the Water Committee and Water Working Group. Remain informed of local and regional water initiatives to improve watershed management and water resiliency.	Public Works Engineering Department	Administration, SGVCOG, Upper San Gabriel Valley Municipal Water District	$	Mid
Policy SAF4.2: Potable Water Conservation. Encourage the use of provisions that conserve potable water for domestic uses. Small-scale interventions for conservation of potable water include watershed restoration, resources for sustainable landscaping, and other home-based interventions.					
Policy SAF4.3: Interagency Collaboration for Water Conservation. Coordinate with local, state, and federal agencies and other local nonprofits to identify and obtain sources of funding for water conservation efforts.					
Policy SAF4.4: Water Resource Protection Partnerships. Partner with local organizations, agencies, and water purveyors that service Irwindale to protect groundwater and surface water resources that are vulnerable to climate change and to ensure a safe and reliable supply of water for future generations.					
SAF4.C	Implement green infrastructure measures (e.g., greenways, community forest, linear parks, vegetated swales, miniparks) to be incorporated into all new development and redevelopment applications to facilitate groundwater recharge. This includes all projects (four units or fewer) that have a land disturbance activity and add, create, or replace more than 500 square feet of impervious area.	Community Development Department	Public Services Department, and Public Engineering, Upper San Gabriel Valley Municipal Water District	$	Long
Policy SAF4.5: Compliance with LA County Building Code. Ensure that the city's building, zoning, and subdivision ordinances remain in compliance with LA County Building Code.					
SAF4.D	Create city programs as feasible to incentivize the use of reclaimed wastewater, water conserving appliances, drought-tolerant landscaping, and other water conservation techniques.	Public Services Department, Public Services Department	Community Development Department, LA County, Upper San Gabriel Valley Municipal Water District	$$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF4.E	Install drought-tolerant landscaping at City-owned facilities within the next 5 years.	Public Services Department	Community Development Department, LA County, Upper San Gabriel Valley Municipal Water District	$$$	Mid
Goal SAF5. A community that is educated about the effects of drought.					
Policy SAF5.1: Water Conservation Education. Support educational programs targeted at reducing water consumption and enhancing groundwater recharge.					
SAF5.A	Collaborate with the Upper San Gabriel Valley Municipal Water District, Valley County Water District, Azusa Light and Water, and California American Water to develop an educational program to inform residents and employees of the status of the drought and water supply in the state and city, the importance of conservation (and how to conserve) as well as maintaining personal household and/or business emergency water supplies. Components of this program may include informational flyers, community workshops, and participation at community events.	Public Services Department	Upper San Gabriel Valley Municipal Water District, Valley County Water District, Azusa Light and Water, California American Water	$$	Long
Extreme Weather					
Goal SAF6. A resilient community with effective adaptation measures to address extreme weather hazards.					
Policy SAF6.1: Extreme Weather Safety. Reduce the impacts of extreme weather on people and places through safe buildings, public shelters, cooling centers, sustainable materials, tree canopy, and other measures that promote safety and mitigate hazards.					
SAF6.A	Review current design guidelines for areas of opportunity to increase standards that promote urban heat mitigation (see **Action SAF2.A**).	Community Development Department	Public Works Engineering Department, LA County	$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF6.B	Seek funding opportunities for climate adaptation to reduce the urban heat island effect with natural solutions and green infrastructure, such as increasing urban tree plantings, greenways, landscaping, cool roofs, cool pavements, green walls, and other elements that help increase cooling in the community and reduce hazards to people from heat impacts.	Community Development Department	Public Works Engineering Department, Los Angeles County Parks and Recreation	$	Mid
SAF6.C	Promote local and regional agency and utility programs (such as the Efficient San Gabriel Valley (eSGV) Program, EASY Program assessment, and SGV GO Green) that provide assessments and assistance to businesses, schools, and households for weatherization improvements, including insulation, air sealing, window and door replacements, air filter replacements, window shading, and other methods.	Community Development Department and Public Services Department	SGVCOG, SoCalGas, Southern California Edison, CARB, SCAQMD, LA County, Caltrans	$	Mid
Policy SAF6.2: Public Improvements. Enhance existing community infrastructure and amenities, including bus shelters, shading trees, landscaping, public streets, and public facilities, to increase safety and relief from extreme weather hazards. Prioritize improvements to infrastructure that is older or in poor quality, or has heat-absorbing materials.					
SAF6.D	Adopt and enforce the latest building codes to increase resiliency of the built environment in Irwindale and minimize impacts from extreme weather hazards on people, property, and life.	Code Enforcement	Los Angeles County	$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF6.E	Install weatherproof shelters, such as awnings and sunshades, and increase tree canopy in the public right of way that protects residents and visitors from extreme weather, including heat, rainfall, and wind, and that helps to reduce the urban heat island effect. Prioritize locations for improvements (such as transit stops, active transportation corridors (pedestrian paths, bike lanes), safe routes to school, and outdoor gathering spaces) by assessing level of use and potential benefit to users through community outreach and engagement.	Public Works Engineering, Public Services Department	Community Development Department, Recreation, Caltrans, CARB, SCAQMD	$$$	Mid
SAF6.F	Identify facilities where cool roofs, green roofs, and/or green facades can be installed to help reduce the urban heat island effect and daytime temperatures. Seek grant funding for planning and implementation of urban heat island mitigation projects.	Public Services Department	Community Development Department, Los Angeles County Parks and Recreation	$	Mid
Goal SAF7. A community with parks and open spaces, greenways, and trees that help to reduce the urban heat island effect, mitigate extreme heat, and reduce impacts to the community.					
Policy SAF7.1: Urban Greening Amenities. Increase parks, open space amenities, and tree canopy in residential and commercial areas and near schools, community centers, and other social gathering areas.					
SAF7.A	Identify park needs in the community, assessing residential neighborhoods that are farther than a half-mile or 10-minute walk from a park or open space area.	Community Development Department	Los Angeles County Parks and Recreation, Trust for Public Land, Public Works, Public Services Department	$	Long

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF7.B	Maintain a list of drought-tolerant and heat-resistant trees that are suitable for planting for Southern California's weather and soil conditions. Consider partnerships with local and regional organizations for the success of the urban canopy, including the Arbor Day Foundation and TreePeople.	Public Services Department	Community Development Department, Recreation, Tree People, Los Angeles County Parks and Recreation	$	Short
SAF7.C	Develop guidelines to support "right tree, right place" plantings, where appropriate and approved species are planted according to best practices to avoid conflicts with power lines, buildings, sidewalks, and other issues that risk long-term success of the urban canopy. Consider the space, height, canopy spread, shape, growth rate, growth requirements, and maintenance requirements of trees for plantings.	Public Services Department	TreePeople, LA County, Southern California Edison	$$	Short
Flooding					
Goal SAF8. A community that is protected from flood hazards, with adequate safety protections in areas subject to potential inundations.					
Policy SAF8.1: Annual Flood Hazard Mapping. Maintain current floodplain mapping, data, and information throughout the city on a yearly basis, using the latest information available from FEMA.					
Policy SAF8.2: Development within Flood Hazard Areas. Require development within mapped flood hazard areas to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life loss resulting from flood hazards.					
Policy SAF8.3: New Development. Require new development to incorporate low-impact designs and nature-based solutions to minimize stormwater impacts on drainage and flood control facilities and promote groundwater recharge, where feasible.					

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF8.4: Storm Drain Master Plan. Prepare, evaluate, and implement the storm drain master plan study to look for and address deficiencies in the storm drain infrastructure.					
SAF8.A	Prioritize storm drain studies and maintenance on areas that are identified for disaster relief such as the Senior Center & Dan Diaz Recreation Center.	Public Works Engineering Department & Public Services Department	$	Mid	
Goal SAF9. Minimized personal injury and property damage losses resulting from dam failure.					
Policy SAF9.1: Dam Failure Inundation Mapping. Work with the US Army Corps of Engineers and Los Angeles County Flood Control District to maintain and expand dam failure inundation area mapping, as relevant to the City of Irwindale.					
Policy SAF9.2: New Development in Dam Failure Inundation Areas. Minimize development in areas at risk of dam inundation, to the extent possible, in order to protect public safety and reduce potential property damage due to dam-failure-induced flooding.					
SAF9.A	Develop a local dam failure evacuation plan in cooperation with the Los Angeles County Flood Control District and US Army Corps of Engineers.	Public Works Engineering Department	Us Army Corps of Engineers	$$	Short
SAF9.B	Identify secondary evacuation routes that are susceptible to dam-failure-related impacts to ensure adequate evacuation access is available.	Public Works Engineering Department	Us Army Corps of Engineers, LACoFD	$	Short
SAF9.C	Amend the zoning ordinance to create provisions that protect or restrict sensitive uses (e.g., schools, daycares, community centers, senior centers, and parks), and critical uses (e.g., emergency service facilities, public utilities, or communications facilities) within flood hazard areas and designated dam inundation areas.	Community Development Department	Public Works Engineering Department	$	Short
SAF9.D	Identify and retrofit existing city assets that are subject to dam failure.	Public Works Engineering Department	TBD	$$$	Long

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF9.3: County Coordination. Work with Los Angeles County Parks and Recreation to protect recreational uses around the Santa Fe Dam Recreation Area from dam-failure-related flooding.					
Policy SAF9.4: Interagency Cooperation for Flood Standards and Regulations. Cooperate with the Los Angeles County Flood Control District, Federal Emergency Management Agency, and US Army Corps of Engineers every 5 years in preparing and implementing flood standards and regulations.					
Geologic and Seismic Hazards					
Goal SAF10. A community protected from seismic and geologic hazards that ensures public health and safety as well as city infrastructure and services are maintained.					
Policy SAF10.1: Building Codes. Ensure that new and retrofitted buildings comply with the most recently adopted applicable city, county, and state building codes governing seismic safety to minimize the potential for damage from earthquakes.					
Policy SAF10.2: Geotechnical Study. Require detailed geologic, geotechnical, or soil investigations in areas of potential seismic or geologic hazards as part of the environmental and/or development review process.					
Policy SAF10.3: Structural Hazards. Mitigate structural hazards related to seismic events through appropriate methods such as excavating and refilling land with engineered fill, slope stabilization, and other appropriate mitigation.					
SAF10.A	Implement slope stabilization projects in the highest risk areas, particularly around the existing 17 mines in the city.	Public Works Engineering Department		$$$	Long
Policy SAF10.4: Critical Facilities. Ensure that police and fire stations, emergency operations centers, communications centers, reservoirs, medical facilities, and other essential structures and facilities located in geologic and seismic hazard areas remain safe and in a state of readiness for earthquakes.					
SAF10.B	Retrofit City-owned critical facilities and buildings to increase their capability to withstand earthquakes.	Public Works Engineering Department		$$$	Long
Policy SAF10.5: SMARA Regulations. Continue to enforce Surface Mining and Reclamation Act (SMARA) regulations with regard to the mining pits in the city to ensure proper handling of slopes, mining depths, runoff, environmental impacts, and the filling and ultimate development of the site.					

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Hazardous Materials					
Goal SAF11. A safe and healthy community that minimizes public health risks and threats from hazardous materials and wastes.					
Policy SAF11.1: Hazardous Materials Risk Reduction. Continue coordination with the Los Angeles County Fire Department to reduce the risk of hazardous materials accidents through conscientious land use planning.					
Policy SAF11.2: Hazardous Materials Businesses. Improve intentional and safe siting of businesses that use, store, or transport hazardous materials and waste near residential neighborhoods and sensitive areas, and enforce mitigation measures to comply with Los Angeles County Fire Department standards.					
Policy SAF11.3: Hazardous Materials Handlers. Continue to require businesses, such as CleanTech Environmental, that store, generate, use, or transport large or toxic quantities of hazardous materials or wastes to comply with Los Angeles County Fire Department standards.					
Policy SAF11.4: Household Hazardous Waste. Encourage the proper reduction of household hazardous waste and disposal through comprehensive public education, recycling efforts, and collection programs.					
Policy SAF11.5: Transportation. Work with governmental agencies, such as Caltrans and the San Gabriel Valley COG, to ensure that transporters of hazardous materials and wastes redesignate truck routes away from residential neighborhoods and sensitive areas where spills may occur.					
SAF11.A	Identify and establish specific travel routes for the transport of hazardous materials and wastes, focusing on the capacity to safely accommodate additional truck traffic, avoidance of residential neighborhoods and areas, and use of interstate or state highways as preferred routes.	Community Development Department	Public Works Engineering Department, LACoFD	$	Short
Policy SAF11.6: Hazardous Waste Spills and Cleanup. Continue to proactively contain and supervise the cleanup of spills on city streets, catch basins, storm drains, and storm channels, and work with property owners to reduce hazardous materials accidents.					
SAF11.B	Post informational resources on the City's website that link to the websites of the county, state, and federal agencies that regulate hazardous materials.	Public Works Engineering Department	Community Development Department	$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF11.C	Create a program to work with property owners to identify hazardous materials risks and ensure remediation of hazardous building materials such as asbestos and lead.	Code Enforcement Department	Community Development Department	$$	Short
Policy SAF11.7: Certified Unified Program Agency (CUPA) Coordination. Continue to work with the Los Angeles County Fire Department to administer and enforce state and federal hazardous materials regulations.					
SAF11.D	In cooperation with the CUPA, inventory and regularly inspect buildings and facilities in which hazardous materials accidents would pose a threat to the community. Work with the owners to develop and implement programs for reducing risks associated with these buildings and facilities.	Public Works Engineering Department	CUPA	$$	Mid
Policy SAF11.8: Existing Mining Pits. Identify and publicize the status of the mining pits in the city.					
SAF11.E	Require the planned reclamation of the mining pits with consideration of the land's potential for recreational, scenic uses, residential, or commercial development.	Public Works Engineering Departments	Community Development Department	$$$	Mid
SAF11.F	Seek grant opportunities and partnerships with state and federal agencies (e.g., U.S. Environmental Protection Agency) to expedite the full cleanup of the remaining sites.	Public Works Engineering Department	USEPA, DTSC	$$	Mid
SAF11.G	Ensure all necessary city staff has Surface Mining and Reclamation Act (SMARA) training to address hazardous materials releases created through mining operations to help ensure that potential hazards are mitigated at the source.	Public Works Engineering Department	Community Development Department	$$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF11.H	In conjunction with **Action SAF11.B**, create a City website that lists the mining pits, operation status, reclamation plans, and other applicable information for residents to access and be aware of the operational timeline of the mining pits.	Public Works Engineering Department	Administration	$	Short
SAF11.I	Require that all mining operations are adequately reviewed during the reclamation and closing processes to minimize, to the greatest degree possible, all identified impacts, especially impacts to water quality.	Public Works Engineering Department	Community Development Department	$	Short
Law Enforcement and Crime					
Goal SAF12. A resourced police department with sufficient staffing, equipment, resources, and readiness to address crime, respond to local emergencies, and increase community safety.					
Policy SAF12.1: Police Services Management. Continue regular review of staffing, equipment, and resources of the police department to ensure continuous and responsive service for law enforcement, crime reduction, monitoring, investigations, emergency, and other critical operations. Identify potential gaps and needs to carry out services and prioritize capacity-building for the Irwindale Police Department to be able to respond to crime reports and increase safety.					
SAF12.A	Review existing mutual aid agreements with partnering agencies providing police and fire services from city departments to assess the need for increased support to reduce crime in the city. Current mutual aid agreements are in place with the cities of Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, La Puente, La Verne, Monrovia, Pomona, Rosemead, San Dimas, Sierra Madre, South El Monte, Temple City, Walnut, and West Covina.	Police Department	LA County Fire, cities of Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, La Puente, La Verne, Monrovia, Pomona, Rosemead, San Dimas, Sierra Madre, South El Monte, Temple City, Walnut, and West Covina	$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF12.B	Assess Police Department resources and support needed for clearing and/or closing crimes and increasing percentage of crimes cleared. Consider staff capacity, tools, funding, and other resources that may pose barriers for addressing safety and crime in the community.	Administration	Police Department	$	Mid
Policy SAF12.2: Patrolling and Surveillance. Evaluate need for increased patrolling and surveillance through additional officers or increased frequency of patrols using crime reports and feedback from the community to enhance safety in areas of concern within the city.					
SAF12.C	Engage with local businesses, employers, organizations, schools, neighborhood groups, and other community members through public workshops to hear community concerns regarding perceptions of unsafe areas in Irwindale, and discuss needs for surveillance and patrolling such as Neighborhood Watch and Business Watch.	Police Department	LA County Fire, Administration	$	Short
SAF12.D	Conduct a yearly evaluation of local businesses' reliance on police services to assess their usage levels. If certain businesses consistently demand a disproportionate share of police time and resources, require them to employ private security.	Police Department		$	Ongoing
Policy SAF12.3: Business Watch. The Irwindale Police Department will establish and facilitate a Business Watch Program to promote crime prevention, community engagement, and emergency preparedness among businesses within Irwindale.					
SAF12.E	Designate a city official or law enforcement liaison as the point of contact for Business Watch Groups.	Police Department			
SAF12.F	Establish a dedicated communication channel for reporting incidents and feedback from community members.	Police Department			

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF12.G	Provide training sessions on crime prevention, emergency preparedness, and other relevant topics for Business Watch members.	Police Department			
SAF12.H	Promote the Business Watch Program through public awareness campaigns, social media, and local news outlets, encouraging participation and community support.	Police Department			
SAF12.I	Schedule regular meetings to discuss safety concerns, share information, and incorporate community and law enforcement feedback.	Police Department			
Goal SAF13. An engaged and responsive community that contributes to reporting, information sharing, and crime reduction.					
Policy SAF13.1: Voluntary Reporting. Continue voluntary crime reporting from the Police Department to the FBI for federally monitored offenses, including violent crime, property crime, arson, burglary, larceny-theft, and hate crime to help evaluate trends over time.					
Policy SAF13.2: Police and Community. Continue to build positive relationships between community members and the Irwindale Police Department through programs, mentorship, education, and events that provide opportunities for engagement and connection.					
SAF13.A	Involve the Police Department in community events and programs where officers can engage with community members on information, discussions, and other activities that promote a positive relationship and increase the sense of safety.	Recreation	Police Department	$	Ongoing
SAF13.B	Conduct regular (monthly, bi-monthly, or quarterly) meetings at public facilities, such as the community center, parks, and city facilities that are near residential neighborhoods and places of employment, to share updates on crime and hear community member concerns.	Police Department	Public Services Department	$	Ongoing

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF13.C	Implement the Park Watch Program to support residents with regular maintenance and patrolling of parks and open spaces. Assess feasibility to implement an **Adopt-a-Park** program under the Park Watch and in collaboration with the Neighborhood Watch, to allow individual neighborhoods, businesses, and organizations to assist with park maintenance, identifying improvements and financing, and security.	Public Services Department	Police Department, Public Works	$$	12 months to implement Park Watch Program
Policy SAF13.3: Public Alerts. Maintain the CivicReady service for public alerts, warnings, events, and other information that promote safety and foster a positive relationship between law enforcement and community members.					
Goal SAF14. A built environment that improves public safety, discourages and prevents crime, and instills a sense of community ownership for people and property in Irwindale.					
Policy SAF14.1: Urban Design. Promote the design of safe neighborhoods to enhance public safety and discourage crime. Require that buildings, streets, and public spaces be designed with safety elements, including lighting, as well as "eyes on the street" and "crime prevention through urban design" features such as gathering areas, sidewalks, walkways and bicycle lanes, street-fronting uses, large and open windows, attractive designs, and other elements that help to connect people in public spaces and maintain public sight.					
SAF14.A	Create citywide objective design standards that address crime prevention through urban design. In the interim, require the following for new developments: • Require buildings to orient toward public areas, including the street, where they can facilitate surveillance of exterior areas. Ensure doorways, entryways, and emergency exits are located where they are visible to other people and properties. • Require that new developments expand open spaces and social gathering areas in the city, including plazas, outdoor eating, farmer's	Community Development Department	Public Works, Code Enforcement, Public Services	$$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
	markets, and other public uses and activities that bring people together and foster community ownership. • Ensure that new tree plantings and landscaping maintain sight lines and do not block visibility. Low hedges, flowerbeds, and tall trees can help maintain sight lines of entryways, streets, and properties (see **Actions SAF2.A** and **SAF6.A**). • Require businesses to adequately maintain landscaping in and along their property, particularly overgrown palm trees.				
Policy SAF14.2: Safe Public Events. Promote events and social gathering in public spaces in the city to help with "eyes on the street." Encourage shared use of public facilities, including parks, playgrounds, open spaces, and parking lots.					
Policy SAF14.3: Implementation of Safety Features. Identify areas of the city in need of additional safety features, including lighting and surveillance technology. Prioritize areas of employment, residential neighborhoods, schools, major roads, and alleyways.					
SAF14.B	Assess current street lighting fixtures, with focus on industrial areas, residential neighborhoods, active transportation routes, commuting routes, parking lots, and routes to school, to prioritize needs for increased and/or improved lighting and help deter theft. Identify number, location, and quality of fixtures to help determine where new fixtures may be beneficial.	Public Works Engineering Department & Public Services Department	Community Development Department, Recreation	$	Short
SAF14.C	Ensure that minimum standards for streetlights are met, and update standards as necessary for implementing best practices for safety lighting.	Public Works Engineering Department & Public Services Department		$$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Wildfire					
Goal SAF15. A city where residents and businesses are safe from wildfires and are prepared for the hazards associated with wildfire spread.					
Policy SAF15.1: Fire Prevention and Suppression Needs. Coordinate with Valley County Water District, as well as other water service providers within the city and neighboring cities and fire agencies in neighboring cities to plan for future fire prevention and suppression needs including identifying future water supply for fire suppression needs.					
Policy SAF15.2: Emergency Evacuation Route Adequacy. Coordinate with state agencies and local fire districts to ensure the maintenance and reliability of current evacuation routes that may be compromised by wildfire, and publicly disclose development locations without sufficient emergency route access or capacity.					
Policy SAF15.3: Maintenance of Emergency Evacuation Routes. Proactively manage vegetation along roadsides of emergency/evacuation routes to prevent wildfires.					
Policy SAF15.4: Fire Codes. Ensure that the latest versions of regional and state Fire Codes are adopted and enforced to build resiliency and minimize the potential for damage, personal injury, and loss from fire hazards.					
SAF15.A	Update local zoning and subdivision codes to designate wildfire hazard overlay zones that are designated by CAL FIRE as VHFHSZs to ensure new development within the overlay will meet all state and local requirements for building and vegetation management. Update, as necessary, associated conditional use, site development standards, and design criteria to mitigate wildfire hazards and reduce risks to new development within the overlay zones.	Community Development Department	CAL FIRE	$$	Short
Policy SAF15.5: Consistency with California Codes. Ensure that all residential, commercial, and industrial construction and development maintain consistency with California Code of Regulations Title 14, Natural Resources, Division 1.5, Department of Forestry, Chapter 7, Fire Protection.					
SAF15.B	Review and update the city's municipal code as necessary to bring it into compliance with California Code of Regulations Title 14, Natural Resources Division 1.5, Department of Forestry, Chapter 7, Fire Protection.	Community Development Department	CAL FIRE	$$	Short

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF15.C	Adopt the most recent County of Los Angeles Fire Department Strategic Fire Plan.	Community Development Department	LA County Fire	$	Short
Policy SAF15.6: Existing Structures in VHFHSZ. Support the retrofitting of existing structures in VHFHSZs built prior to modern fire safety codes or wildfire hazard mitigation guidance to help reduce the risk of structural and human loss due to wildfire.					
SAF15.D	Prioritize public and private funding for fire risk reduction to assist private landowners in implementing safety measures to achieve a low-risk condition, specifically for businesses within or near VHFHSZs in the city.	Community Development Department	LA County Fire	$	Ongoing
Policy SAF15.7: Development in the VHFHSZ. Avoid or minimize new residential development in the VHFHSZ. If new development occurs within or near the VHFHSZ, ensure projects comply with all applicable state or local fire safety and defensible space regulations or standards, and any applicable fire protection or risk-reduction measures identified in locally adopted plans. Discourage land uses that could exacerbate the risk of ignitions in the VHFHSZ, such as outdoor storage of hazardous or highly flammable materials, automobile service stations, or gas stations.					
Policy SAF15.8: New Development Fire Safety Standards. Require that all new development prepare a fire protection plan that complies with established fire safety standards. Require that ingress and egress routes be constructed using the most current state Fire Safe Regulations, Fire Code, and or City Code that meets these minimum requirements. Fire protection plans shall be referred to the appropriate fire agency and other public agencies for comment as to: 1) Risk analysis 2) Location of anticipated water supply 3) Adequacy of water supply for new development (i.e., maintenance and long-term integrity) 4) Adequacy of fire flow (gallons per minute) to extinguish a fire at the proposed development 5) Fire response capabilities including site design for fire department access in and around structures 6) Ability for a safe and efficient fire department response 7) Traffic flow and ingress/egress for residents and emergency vehicles 8) Mitigation measures and design considerations for non-conforming fuel modification 9) Potential impacts to emergency services and fire department response 10) Wildfire education maintenance and limitations					

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF15.9: Proper Addressing and Signage. Implement proper addressing and signage for all streets and homes in compliance with the Los Angeles County Fire Department to assist in fire emergencies.					
Policy SAF15.10: Vegetation Maintenance Agreement. Continue to require new development to enter into a long-term vegetation maintenance agreement with the City for defensible space and fuel modification.					
Policy SAF15.11: Flammable Plant Species. Reduce highly flammable plant species that have a low drought tolerance and easily spread.					
SAF15.E	Work with certified arborists or organizations to identify plant species that are highly flammable and pose risks to the community, with an inventory of their location and risk level. Prioritize more vulnerable locations (those within VHFHSZ to the north) for removal or replacement of flammable plant species to reduce the risk of brush fires.	Public Services Department	TreePeople, Recreation, Community Development	$	Ongoing
SAF15.F	Adopt a fire-resistant landscape ordinance to ensure existing flammable vegetation is removed and replaced with fire-adaptive plants.	Community Development	Public Works Engineering Department, Public Services Department	$	Short
Policy SAF15.12: Defensible Space. Ensure that a defensible space is maintained around residential located in high or very high wildfire hazards zones, as per Los Angeles County Fire Department guidelines.					
Policy SAF15.13: Fire Prevention Techniques. Preserve and maintain existing fire trails, defensible space and community fire breaks and maintain public and private road clearance.					
SAF15.G	Coordinate with CAL FIRE, Fire Safe Councils, public works, fire districts, and other community organizations to ensure proper maintenance of fire breaks; seek funding opportunities (both federal and state) for fire breaks and their long-term maintenance.	Public Works Engineering Department & Public Services Department	CAL FIRE, LA County Fire	$$	Ongoing

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF15.H	Work with the Los Angeles County Fire Department to maintain open spaces within and around the Santa Fe Dam Recreation Area and San Gabriel River Basin so that ground fuels do not promote the spread of wildfire and aerial fuels do not allow the spread of a fire through the tree canopy.	Public Works Engineering Department & Public Services Department	Community Development Department	$$	Ongoing
Policy SAF15.14: Location of Public Facilities. All essential public facilities shall be located outside high fire risk areas, where feasible.					
Policy SAF15.15: Non-Conforming Development. Mitigate existing non-conforming development to contemporary fire safe standards, in terms of road standards and vegetative hazards, as feasible.					
SAF15.I	Identify existing non-conforming development, prioritizing sensitive uses within Very High Fire Hazard areas, and work with CAL FIRE to create a program for homeowners and business within these areas to bring their properties into conformance, learn about the fire risk and how to reduce that risk through fuel modification.	Public Works Engineering Department & Public Services Department	CAL FIRE, Community Development Department	$$	Ongoing

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Emergency Preparedness					
Goal SAF16. A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage, and disruption to the social and economic life of the city.					
Policy SAF16.1: Emergency Response Planning. In cooperation with City emergency response providers, maintain and regularly update emergency plans for floods, earthquakes, fires, hazardous materials, and other disasters. Plans should be consistent with the California Standardized Emergency Management System protocol.					
SAF16.A	Review and update the city's Local Hazard Mitigation Plan every 5 years in accordance with federal planning regulations to reduce loss of life and property by minimizing disaster impacts, and ensure the City is eligible to access funding for disaster assistance, pre-disaster planning, and other grant programs for safe community planning.	Community Development Department	LA County, FEMA	$$	Ongoing
Policy SAF16.2: Interagency Coordination. Cooperate with other public agencies, nearby cities, community groups, and private enterprises in developing comprehensive disaster preparedness, assistance, and post-disaster recovery plans in order to maximize mutual aid response. Participate in regularly scheduled disaster exercises and emergency response drills to better prepare Police, Fire, Public Works, and other city department employees for disaster response.					
Policy SAF16.3: Private Sector Collaboration. Engage the private sector (business community) in disaster response planning and coordination through planning outreach and engagement that fosters stronger connections with the business community, increases information sharing on emergency management, and facilitates public-private partnerships. Ensure input from the business community informs the planning process, emergency response strategies, and post-disaster recovery efforts, including short- and long-term restoration of services and operations, and economic recovery.					
Policy SAF16.4: Assessment of Future Emergency Service Needs. Prepare an assessment and projection of future emergency service needs as part of the city's future General Plan Land Use Element Update and Master Fire Plan and ensure that future growth projections are coordinated with emergency and fire service capacity and delivery.					

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF16.5: Post-Disaster Evaluation. Following disasters, conduct an evaluation of the extent of damage and the need for redevelopment, particularly after large fires.					
SAF16.B	Ensure post-fire redevelopment complies with the most current version of the California Building Codes and California Fire Code.	Fire Department	Public Works Engineering Department	$	Ongoing
Policy SAF16.6: Community Capacity. Involve volunteers, community groups, and civic organizations in emergency response activities, including planning and program development to prepare for disasters and disaster recovery. Individuals and businesses should have access to up-to-date information that allows them to engage with the City, regional agencies, and community-based organizations to expand communications, coordinate hazard preparation and response, and be able to make informed decisions about potential safety hazards and the level of risk they are willing to accept.					
SAF16.C	Collaborate with city departments and public service providers, such as the Department of Public Works and the Los Angeles County Fire Department, to implement hazard awareness, education, and preparation programming for Irwindale residents and businesses to learn about natural hazards, risks, and risk reduction strategies.	Community Development Department	Public Works Engineering Department, Public Services, Department, Police Department, LA County Fire	$$	Ongoing

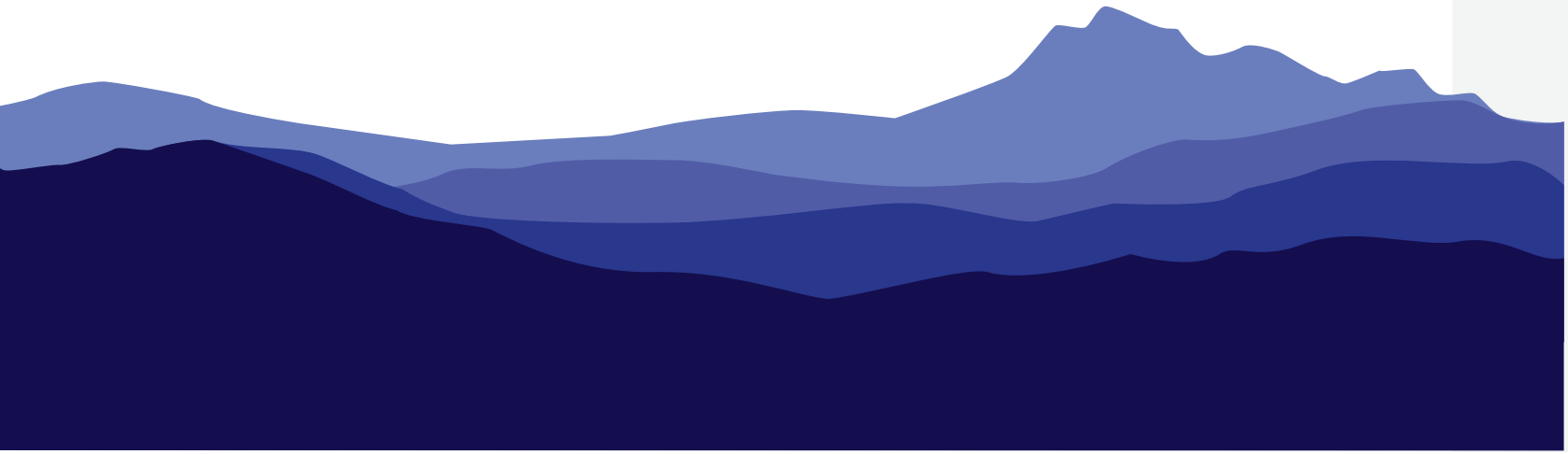
ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
SAF16.D	Seek partnerships with neighboring jurisdictions and community-based organizations to develop a program for building community safety awareness, with an ongoing series of informational public meetings or seminars and a community guide on disaster preparedness and procedures. The program should be about minimizing hazards in the home; wildfire mitigation and disaster planning; earthquake preparedness and housing retrofit programs; and developing disaster preparedness and evacuation plans. The program should be promoted through existing community newsletters and in the ongoing emergency preparedness column within the local newspaper.	Community Development Department	Public Services Department, Police Department, Police Department, LA County, SGVCOG	$$	Ongoing
Policy SAF16.7: Utilities. Work with local gas, electric, cable, water, sewer, and other utility providers to maintain their facilities and ensure their ability to function (or be quickly restored) during and following a disaster.					
Policy SAF16.8: Critical Facilities. Ensure that critical public facilities and infrastructure that support community health and safety (such as police and fire stations, and water and sewer facilities) are designed to maximize their resilience and ability to function during and after a natural disaster.					
SAF16.E	Collaborate with community-serving utilities and public facilities that are critical to effective disaster response to evaluate their ability to operate efficiently after a major disaster. Support and incentivize emergency action planning for these facilities to ensure they are well prepared for disaster and are accessible during emergencies. Work with the utilities and public facilities to designate alternative facilities for post-disaster assistance in the event that primary facilities are impacted.	Community Development Department	Public Works Engineering Department, Police Department, Public Services Department, LA County, SoCalGas, Southern California Edison	$$	Ongoing

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
Policy SAF16.9: Technology. Support the use of communication technologies to transmit information to other agencies and the public during emergencies, including: • CivicReady emergency alert system • Social media operated by the Los Angeles County Fire Department, Irwindale Police Department, and other public safety agencies and municipalities • Other systems to provide outreach to residents without telephone or Internet service					
Policy SAF16.10: Emergency Evacuation. Ensure the transportation system provides adequate capacity for safe, efficient and quick evacuations in the event of an emergency or natural disaster.					
SAF16.F	Provide evacuation information to residents, businesses, and visitors to help improve emergency preparedness. Evacuation materials should identify shelter locations, evacuation routes, defensible space and procedures for storing value items or taking such items with them.	Community Development Department	Public Works Engineering Department, Public Services Department, Police Department, LA County Fire	$	Short
SAF16.G	Continue to work with local emergency response providers in Irwindale to review, evaluate, and update emergency evacuation routes upon each update of the city's Safety Element or Local Hazard Mitigation Plan, as understanding of hazard impacts improve and climate change impacts continue.	Community Development Department	Police Department, LA County Fire	$	Ongoing
SAF16.H	Upon the next update of the Local Hazard Mitigation Plan, update city maps that address the adequacy of evacuation routes and their capacity, safety, and viability in the event of natural hazards and other emergencies that meet Assembly Bill 747 requirements.	Community Development Department	Police Department, LA County Fire	$$	Mid
SAF16.I	Consider including the following actions in conjunction with established fire standards when	Fire Department	Public Works Engineering Department & Public Services Department	$$	Mid

ACTION NO.	ACTION	LEAD AGENCY	PARTNERSHIPS	RELATIVE COST	IMPLEMENTATION TIMEFRAME
	formalizing plans for potential or imminent evacuation routes, particularly in the VHFHSV: • Increase capacity through use of contraflow lanes or shoulders. • Manage traffic control, including through turn restrictions and route or ramp closures, to minimize outflows from evacuation areas. • Prohibit or restrict street parking on high-hazard days. • Continually improve communication systems and implement strategies that improve disaster alerts. • Instigate dynamic route guidance and monitoring. • Implement phased evacuations. • Promote reductions in vehicle volumes during evacuations, such as by encouraging households to use only one vehicle to evacuate. • Closely monitor power issues that could affect traffic signals and slow down evacuations.				
SAF16.J	The Dan Diaz Recreation Center is designated as a disaster relief center for major disasters. The Senior Center is open as a disaster relief center during smaller emergencies and disasters such as storms and heat waves.	Administration Department and Public Services Department	Community Development Department	$$	Ongoing

INTENTIONALLY BLANK

SECTION 5 References



Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. (California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission). 2018. Statewide Summary Report. California's Fourth Climate Change Assessment. Publication number: SUMCCCA4-2018-013.

Cal-Adapt. 2018. Local Climate Change Snapshot for Irwindale. [Temperature: Annual Average Maximum Temperature and Extreme Heat Days. Precipitation: Maximum Length of Dry Spell and Annual Precipitation. High Emissions (RCP 8.5)]. Cal-Adapt website developed by University of California at Berkeley's Geospatial Innovation Facility under contract with the California Energy Commission. Accessed July 20, 2022. https://cal-adapt.org/tools/local-climate-change-snapshot.

———. 2021. Wildfire Data for Select geographies. Accessed August 2022. https://cal-adapt.org/tools/wildfire/.

California Department of Forestry and Fire Protection (CAL FIRE). 2021a. CAL FIRE Geographical Information System (GIS).

———. 2021b. *Fuels Reduction Guide*. www.ReadyForWildfire.Org, www.FIRE.CA.Gov. Accessed July 2022. https://www.fire.ca.gov/media/4jqerfjh/fuels-reduction-guide-final-2021-interactive.pdf.

———. 2022. Fire and Fuels Treatment. Accessed July 2022. https://www.fire.ca.gov/programs/resource-management/resource-protection-improvement/wildfire-resilience/forest-stewardship/fire-and-fuels-treatment/.

California Department of Justice (DOJ). 2021. 2021 Hate Crime in California. Accessed July 20, 2022. https://oag.ca.gov/system/files/attachments/press-docs/Hate%20Crime%20In%20CA%202021%20FINAL.pdf.

California Governor's Office of Emergency Services (OES). 2018. *California State Hazard Mitigation Plan*. September 2018. Accessed August 2022. https://www.caloes.ca.gov/wp-content/uploads/002-2018-SHMP_FINAL_ENTIRE-PLAN.pdf.

California Governor's Office of Planning and Research (OPR). 2022. *Fire Hazard Planning Technical Advisory*. General Plan Technical Advice Series. August 2022. Accessed August 2022. https://opr.ca.gov/docs/20220817-Fire_Hazard_Planning_TA.pdf.

California Highway Patrol (CHP). 2022. Partners in Safety – HazMat Information for Shippers and Carriers. Accessed June 2022. https://www.chp.ca.gov/programs-services/programs/commercial-vehicle-section/partners-in-safety-hazmat-information-for-shippers-and-carriers.

California Legislative Information (CLI). 2019. SB-99 General plans: safety element: emergency evacuation routes. Accessed February 2023. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB99

Centers for Disease Control and Prevention (CDC). 2019. PLACES: Local Data for Better Health. National Center for Chronic Disease and Health Promotion, Division of Population Health, Atlanta, GA. Accessed July 20, 2022. https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65.

City of Irwindale. 2008. *2020 General Plan*. Safety Element. June 2008, page 143.

———. 2014. *2014 Hazard Mitigation Plan*. Final Draft. April 30, 2014.

———. 2021a. *Emergency Operations Plan, Part I: Base Plan, A Strategy for Citywide Response and Recovery to Major Emergencies and Disasters*. Last Revised January 18, 2021.

———. 2021b. *Irwindale Active Transportation Plan*. January 2021. Accessed July 20, 2022. https://www.irwindaleca.gov/DocumentCenter/View/6532/IrwindaleActiveTransportationPlan-012021?bidId=.

Department of Toxic Substances Control (DTSC). 2021. EnviroStor Database. Accessed August 2022. https://www.envirostor.dtsc.ca.gov/public/.

Federal Bureau of Investigations (FBI). 2019. Crime in the United States. [Table 4, Crime in the United States by Region, Geographic Division, and State, 2018-2019, and Table 8, California Offenses Known to Law Enforcement by City, 2019]. Accessed July 20, 2022. https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables.

———. 2021. *Uniform Crime Reporting Program, Crime Data Explorer 4.0.1.* Summary Crime reported by the Irwindale Police Department 2010–2020 [All Violent Crimes, All Property Crimes, Arson, Burglary, Larceny-theft, and Motor vehicle theft]. September 27, 2021. Accessed July 20, 2022. https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/crime-trend.

Los Angeles County Fire Department (LACoFD). 2022. *Certified Unified Program Agency (CUPA)*. Accessed August 2022. https://fire.lacounty.gov/cupa-programs/.

National Oceanic and Atmospheric Administration (NOAA). 2020. NOAA's National Weather Service Storm Prediction Center. Accessed October 2021. https://www.spc.noaa.gov/misc/about.html.

Office of Environmental Health Hazard Assessment (OEHHA). 2021. California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0. October 20, 2021. Accessed July 20, 2022. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.

SGVCityWatch. 2022. Irwindale. Accessed August 2022. https://www.sgvcitywatch.com/irwindale/category/brush-fire.

Southern California Association of Governments (SCAG). 2020. *Southern California Adaptation Planning Guide*. Accessed August 2022. https://scag.ca.gov/sites/main/files/file-attachments/socaladaptationplanningguide_oct2020_0.pdf.

State Water Resources Control Board (SWRCB). 2021a. GeoTracker Database search for Irwindale, CA. Accessed August 2022. http://geotracker.waterboards.ca.gov/.

———. 2021b. Underground Storage Tank (UST) Program of the Los Angeles Regional Water Quality Control Board Webpage. Accessed August 2022. https://www.waterboards.ca.gov/losangeles/water_issues/programs/ust/.

TreePeople and Loyola Marymount University Center of Urban Resilience (LMU CURes). 2022. Los Angeles County Tree Canopy Map Viewer. Accessed July 20, 2022. https://www.treepeople.org/los-angeles-county-tree-canopy-map-viewer/.

Trust for Public Land (TPL). 2022. ParkServe. Accessed July 20, 2022. https://www.tpl.org/City/irwindale-california.

United States Geological Survey (USGS). 2021. Santa Ana Winds. Accessed October 2021. https://www.usgs.gov/media/images/santa-ana-winds.

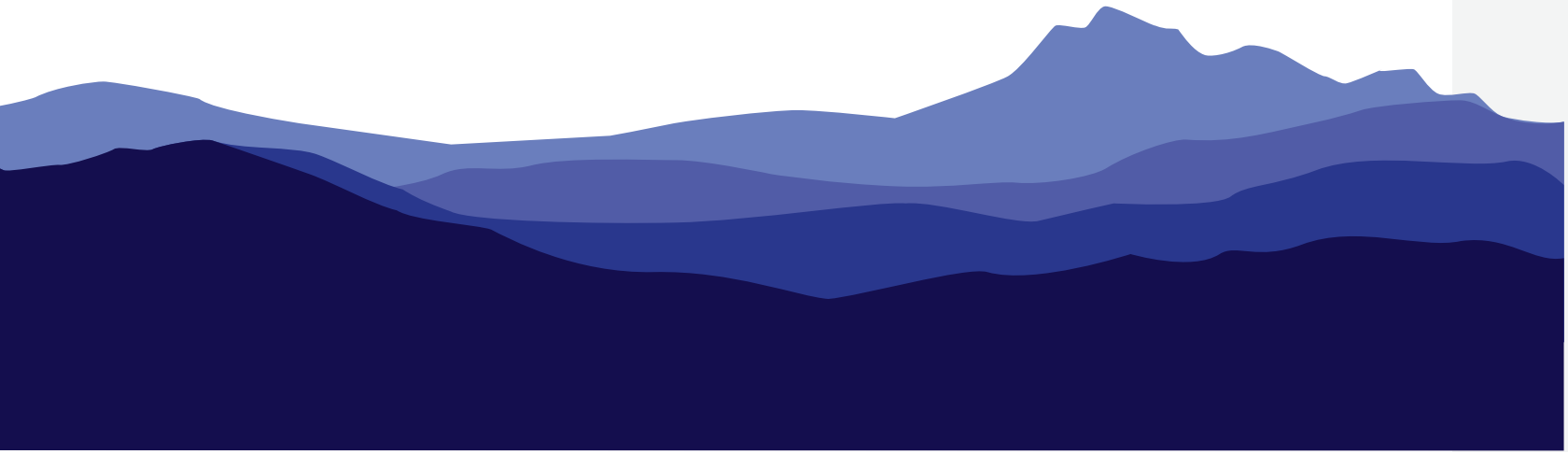
United Stated Environmental Protection Agency (USEPA). 2016. Climate Change and Extreme Heat: What You Can Do to Prepare. Accessed August 2022. https://www.epa.gov/sites/default/files/2016-10/documents/extreme-heat-guidebook.pdf.

———. 2021. TRI Search. Accessed August 2022. https://www.epa.gov/enviro/tri-search.

———. 2022. *Causes of Climate Change*. Las updated on February 23, 2022. Accessed July 2022. https://www.epa.gov/climatechange-science/causes-climate-change.

APPENDIX A

Existing Conditions Report



APPENDIX B

Community Engagement Report