



Public Health and Safety Element





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5.0 PUBLIC HEALTH AND SAFETY

5.1 INTRODUCTION

A primary role for a city is the protection of the people who live and work within its limits as well as their property. Natural disasters are a common occurrence throughout Southern California. This has placed an emphasis on cities taking appropriate measures to identify and protect against these hazards and to provide for the public's safety. The Public Health and Safety Element of the General Plan identifies these natural and man-made hazards and provides goals and policies to protect the general public.

5.1.1 Purpose and Function

The Public Health and Safety Element is used to identify specific natural and man-made hazards within the City limits. These hazards affect decisions made on land uses and activities that could be impacted by the identified hazards. Hazards that may affect the health and safety of the general public include:

- Geologic conditions (e.g. seismic, landslides and slope stability, liquefaction)
- Flooding
- High fire risk
- Hazardous materials
- Emergency preparedness
- Airport land use compatibility

This Element provide for the identification of specific hazards, their specific locations within the City, and goals and policies designed to minimize the social, economic, and environmental disruption from hazardous events.

5.1.2 Relationship to Other Elements

The Public Health and Safety Element is directly tied to other elements of the General Plan. The types and locations of land uses are directly affected by the location and type of natural or man-made hazards. The placement of elements of the circulation system may be affected by the presence of hazards while the circulation system also serves as evacuation routes during hazardous conditions. The location of public services such as schools and hospitals are also influenced by the location of hazards. Areas of hazardous conditions may also be designated as open space thereby influencing the Open Space and Conservation Element.

5.1.3 Related Plans and Programs

Federal, state, and local regulations also regulate and influence public health and safety within the City. These include:



- California Environmental Quality Act (CEQA)
- California Government Code
- National Pollutant Discharge Elimination System (NPDES)
- San Bernardino County Flood Control Master Drainage Plan
- San Bernardino County Fire Management Plan
- City of Grand Terrace Municipal Code

5.2 EXISTING CONDITIONS

5.2.1 Geologic Hazards

Areas throughout Southern California, including the City of Grand Terrace, are subject to seismic hazards. The City of Grand Terrace is located near three major zones; the San Andreas Fault Zone, the San Jacinto Fault Zone, and the Elsinore Fault Zone. In addition to the potential for earthquakes resulting in shaking and ground rupture, seismic activity may result in landslides on unstable slopes and liquefaction in areas of high groundwater and loose soils. This section describes the geologic setting of the City of Grand Terrace, the specific geologic hazards that may affect the City.

Geology

The City of Grand Terrace consists of three distinct topographic regions. The majority of the city is located on a broad alluvial fan extending east from Blue Mountain. The second area is the steep slope of Blue Mountain, while a third area in the northwest portion of the City is located within the Santa Ana River floodplain. Elevations in the City range from 900 above sea level to 2,428 feet at the top of Blue Mountain.

Soils within the City correspond to the three topographic regions. The majority of the City located on the slope of Blue Mountain is characterized by older undifferentiated alluvial fan deposits and decomposed clay-rich alluvium from the Pleistocene age. The steep slopes of Blue Mountain are characterized by gray, medium to coarse-grained quartz diorite of the Cretaceous age. Finally, the Santa Ana River area is characterized by alluvium consisting of unconsolidated sand.

Seismicity

There are seven known fault zones located near the City of Grand Terrace that could result in a seismic hazard to the City. These include:

- Chino-Elsinore Fault – 20 miles southwest
- Cucamonga Fault – 13.5 miles north
- San Andreas Fault – 9 miles north
- Loma Linda Fault – 2.4 miles north



- San Jacinto Fault – 0.75 miles north
- Rialto-Colton Fault – 0.65 miles northeast
- An unnamed fault – 0.47 miles northeast

There are no known faults within the Grand Terrace City limits. However, the Alquist-Priolo Special Study Zone for the San Jacinto Fault lies approximately 2,800 feet north east of the City. Earthquakes along any active fault in Southern California are capable of causing damage within the City of Grand Terrace. Primary hazards result directly from ground motion including ground rupture and ground shaking. Secondary hazards result from the interaction of the ground shaking with existing ground instabilities. These may result in settlement, landslides or liquefaction.

The placement of sensitive land uses in areas where seismic activity or associated secondary hazards may exist must be considered at all times. Although current California building requirements place special emphasis on seismic protection, there continue to be risks associated with land use and seismic hazards. The level of risk in seismic events will vary depending upon the specific land use. The State of California uses a classification system to determine areas at risk of seismic hazards. The City of Grand Terrace is located within Classifications IV, V, and VI. Table 5.1 summarizes acceptable risks by various land use types for each of these classifications.

**Table 5.1
Seismic Risk By Land Use**

	Building/Land Use Types	Risk Zone		
		IV	V	VI
I	Electrical Power Systems	GU	GU	GU
II	Schools, hospitals, fire stations, police stations, Emergency communication facilities, critical transportation facilities including bridges and overpasses, small dams, major utility facilities	PS	PS	PS
III	Churches, large or high rise buildings, places with large concentrations of people including civic centers, large commercial and office building, and major roads	PS	PS	PS
IV	Residential (single and multi-family), most commercial and minor public services and facilities	PS	PS	PS
V	Most industrial, warehousing, minor commercial	PS	PS	PS
VI	Agriculture, marinas, mineral extraction and processing, parks, open space	GS	GS	GS

¹ Development may be feasible in land slide areas, not directly within potential active fault zone areas, if adequate provisions are made for stabilization.

² This chart is for general land use planning purposes only. The actual suitability of specific uses on a specific site is subject to detailed geotechnical analysis.

³ Symbols
 GS = Generally Suitable
 PS = Provisionally Suitable
 GU = Generally Unsuitable



Liquefaction

Liquefaction is a seismically induced form of ground failure resulting from loose, granular materials at depths of less than 50 feet with a silt and clay content of less than 30 percent that are saturated by relatively shallow groundwater. The shaking of these soils and mixing with groundwater may result in ground failure that may cause a subsidence and actual sinking of structures. However, all three factors must be present for liquefaction to occur. In the City of Grand Terrace, groundwater is at approximately 140 feet below surface and soils are generally stable. As indicated in Exhibit 5-1, areas located along the Santa Ana River may be subject to potential liquefaction hazards. However, these areas are not located within areas considered to be developable within the City of Grand Terrace. Therefore, liquefaction is not considered a direct hazard to the City of Grand Terrace.

Slope Stability

Slope stability is determined using a number of factors including:

- Relative angle of the slope
- Soil characteristics
- Geologic formation and bedrock conditions
- Precipitation
- Erosion
- Vegetative cover including damage from wildland fires
- Alteration by humans such as grading

The majority of the City has been urbanized. With the construction of homes and businesses, slopes throughout the urban area have been stabilized using modern engineering. However, undeveloped slopes continue to exist on the slopes of Blue Mountain. Additional slopes occur along the Santa Ana River floodplain.

Landslides

Landslides are defined as the fast downward movement of earth and rocks. Landslides may be the result of seismic activity or the infiltration of water into unstable soil. As illustrated in Exhibit 5-1, landslide hazards are present on the slopes of Blue Mountain.





5.2.2 Flood Hazards

Floodplains

Hazards associated with flooding may result in personal injury and property damage. The primary flood hazard in Grand Terrace is the Santa Ana River located along the northwest corner of the City. This floodplain has been mapped by the Federal Emergency Management Agency (FEMA) which assesses the flooding potential. As indicated in Exhibit 5.2, FEMA has designated a strip along the Santa Ana River as a 100-year floodplain. This indicates that the subject area has a potential of a major flood sometime within a span of 100 years. The potential elevation of floodwaters from the 100-year event is also provided. A secondary area with a potential for flooding within a 500-year time span is also indicated.

The placement of various land uses within a 100-year floodplain are dependent upon the specific use. Table 5.2 summarizes the compatibility of specific land uses within a floodplain.

Local Flood Hazards

In addition to flooding from a river, flood hazards may exist due to intense rainfall on steep slopes. The majority of the City of Grand Terrace is located on the alluvial fan of Blue Mountain. There is a general grade of approximately 7 percent from the base of Blue Mountain to the southwest corner of the City. During times of heavy rainfall, the potential for storm runoff from the slopes of Blue Mountain increases. Urban development of the City has also greatly increased the amount of impermeable surface (i.e. roof tops and paved streets) that has greatly increased the amount of run off from the urban areas of the City. These two major sources of run off combined with steep slopes may result in a potential for flooding within the City.



Exhibit 5-1 – Geological Hazards

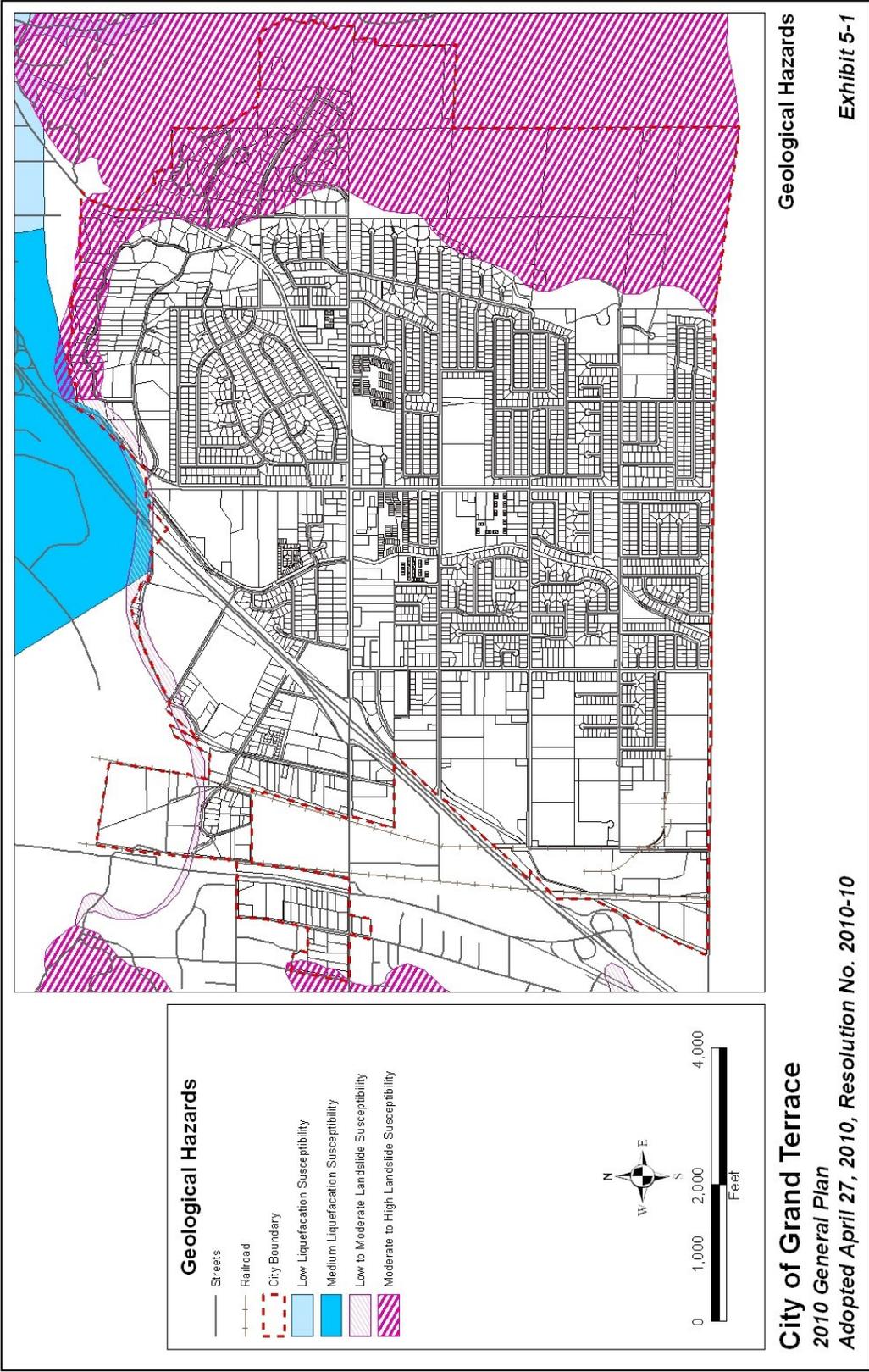
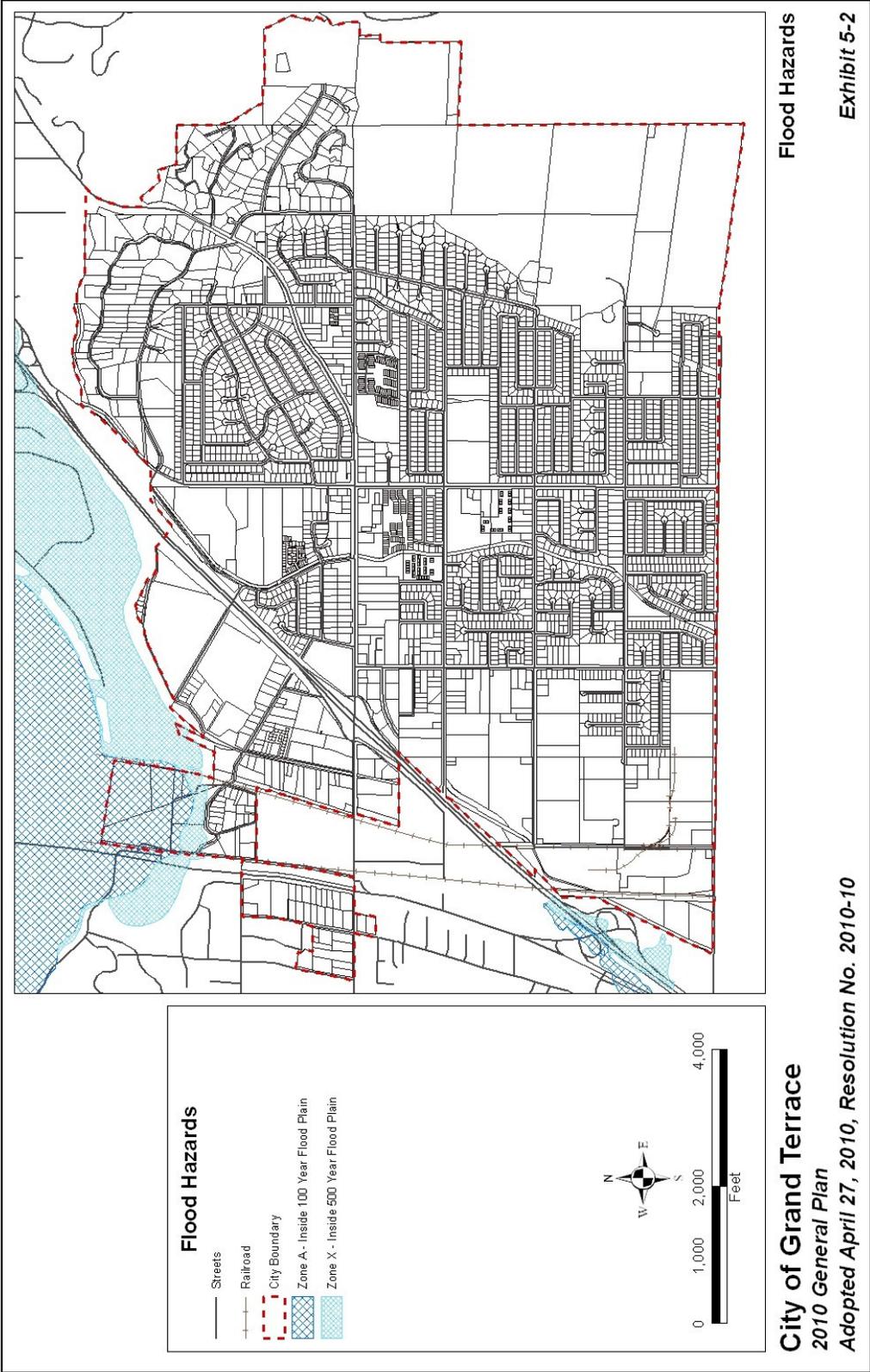




Exhibit 5-2 – Flood Hazards





Dam Inundation

There are no major dams located within the City of Grand Terrace. The only major dam that could impact the City is the Seven Oaks Dam located northeast of the City of Highland. In the event that this dam failed, it would eventually enter the Santa Ana River floodplain as it passes Grand Terrace. This increased water volume could potentially flood the lower elevations of the northwest corner of the City along the river's course.

Table 5.2
100-Year Floodplain Compatibility

Use Designation	Land Uses	Compatibility
Critical	Nuclear power facilities, major dams, hazardous materials manufacturing, storage or handling, hospitals	Restricted
Essential	Emergency services (police & fire), emergency operations centers, power facilities, sewage treatment plants, water works, gas and power lines, major highways, public assembly facilities (300+ capacity), schools	Restricted
High Occupancy	Multi-family residential (20+ units)major commercial centers, large hotels, health clinics, heavy industry, gas stations, convalescent homes	Generally Incompatible
Normal Risk	Single family residential, multi-family residential (-20 units), small hotels, light industry, warehousing	Generally Incompatible
Low Risk	Open Space, agriculture	Generally compatible

¹ Restricted refers to uses restricted unless alternative sites are not available or feasible and a site investigation demonstrates that hazards can be adequately mitigated.

² Generally incompatible refers to uses that are restricted unless a site investigation demonstrates that a site is suitable or the flood hazard can be adequately mitigated.

5.2.3 Hazardous Materials

The evaluation of hazardous materials includes activities involved in the manufacture, storage, transportation, use, and disposal of hazardous materials and hazardous wastes. The potential health hazards and environmental damage that may occur from the careless use of these materials or their accidental release is a cause of great concern to any community.

Hazardous materials are regulated at all levels of government. Agencies directly involved in their regulation include:

- United State Environmental Protection Agency (USEPA)
- California Environmental Protection Agency (CALEPA)
- California Department of Toxic Substance Control (DTSC)
- San Bernardino County Fire Protection District
- United States Department of Transportation (USDOT)



- California Department of Transportation (Caltrans)
- California Highway Patrol (CHP)
- California Emergency Management Agency (CalEMA)
- South Coast Air Quality District (SCAQMD)
- State Water Quality Control Board (SWQCB)
- City of Grand Terrace

The San Bernardino Fire Protection District, Hazardous Materials Division, was granted authority by the California Environmental Protection Agency (CalEPA) to become the Certified Unified Program Agency (CUPA) for San Bernardino County. The CUPA is directly involved in the inspection, permitting, and enforcement of hazardous materials manufacturers, hazardous waste generators. USDOT and the CHP regulate the transportation of hazardous materials while the DTSC is actively involved in the storage of hazardous materials and the cleanup of hazardous waste sites.

The City of Grand Terrace is actively involved in the regulation of land uses using hazardous materials. The City may also regulate the transportation of hazardous materials within the City limits. The City has also adopted a City Hazardous Waste Management Plan in accordance with State law. The HWMP regulates all businesses that use or generate hazardous materials within the City and requires them to inventory amounts and types of hazardous materials used by their business. The CUPA requires businesses meeting requirements pursuant to California Health and Safety Code, Section 25503.5 to establish and implement a Hazardous Materials Business Plan in accordance with the section.

5.2.4 Fire Hazards

Fires have a potential to threaten human life, property, natural resources, and wildlife. They may occur in urban areas, wildland areas or in the interface of both areas.

Urban fires typically involve structures and are often caused by sources within the structures. Urban fires have the highest potential to impact people due to the high concentration in urban areas. Property values are also much higher in urban areas than in others resulting in the potential for loss of life and expensive property damage. The fast response by fire fighting services is essential in limiting the damage to property and loss of life. Effective fire protection in urban areas is based upon the:





- Age and general condition of structures
- Efficiency of the local circulation system that allows fire units to quickly reach the fire
- Availability of adequate water quantities at adequate pressure
- Staffing

Fire protection services for the City are provided by the San Bernardino County Fire Protection District. Fire protection services include:

- Structural Fire Suppression
- Wildland Fire Suppression including County hand crews, bulldozers, and helicopter suppression services
- Emergency Medical Services including basic life support
- Technical Rescue Services
- Hazardous Materials Mitigation
- Incident Command and Control including Battalion Chiefs, Division Chiefs, and a County Incident Management Team
- Code Enforcement through the California Building Code and California Fire Code
- Pre-Fire Planning Services
- Public Education Services

The majority of the City of Grand Terrace is urbanized. The City is primarily single family residential neighborhoods with urban and industrial centers. The City of Grand Terrace is staffed by the County of San Bernardino Fire Department and provides fire protection services for the citizens of the area. Fire Station Number 23, located at 22582 Center City Court is responsible for providing fire protection to the community of Grand Terrace. Daily staffing includes one career Fire Captain and one Limited-term firefighter. The daily staffing is augmented by a force of 20 paid-call firefighters. An additional firefighter augments the daily staffing during fire season (May-December), however funding for seasonal positions is reviewed annually and not guaranteed. During major fire emergencies, additional fire protection units may be called in from other surrounding city and county fire departments via Automatic or Mutual Aid.

Wildland fires typically occur in large undeveloped areas. They may be caused by natural sources such as lightning strikes or by humans, either intentionally or unintentionally. They result in the destruction of grasses, shrubs, and trees and can destroy both vegetation and animal life. The results can leave barren hillsides that are susceptible to erosion and mudslides. Often, wildland fires occur on steep hillsides that are difficult to access for fire fighters and are distant from major water sources that could be used to fight the fires. Seasonal conditions also affect the potential for wildfires. High summer temperatures, low humidity, and high winds result in dry brush and atmospheric conditions that can accelerate fires through steep terrain.

Wildland-urban interface fires may occur in areas where urban land uses abut native areas. Under these conditions, wildfires may threaten urban uses. In the City of Grand Terrace, the California Department of Forestry and Fire Protection (CALFIRE) has identified a Very High



Fire Hazard Severity Zone within the City. Residential uses have been constructed along these areas that back up to an area of natural vegetation that is highly susceptible to fires. Exhibit 5-3 illustrates the limits of the Very High Fire Hazard Severity Zone for the City. Construction in the Very High Fire Hazard Severity Zone will be required to meet the requirements of Chapter 7A of the California Building Code relating to fire resistant rated construction.

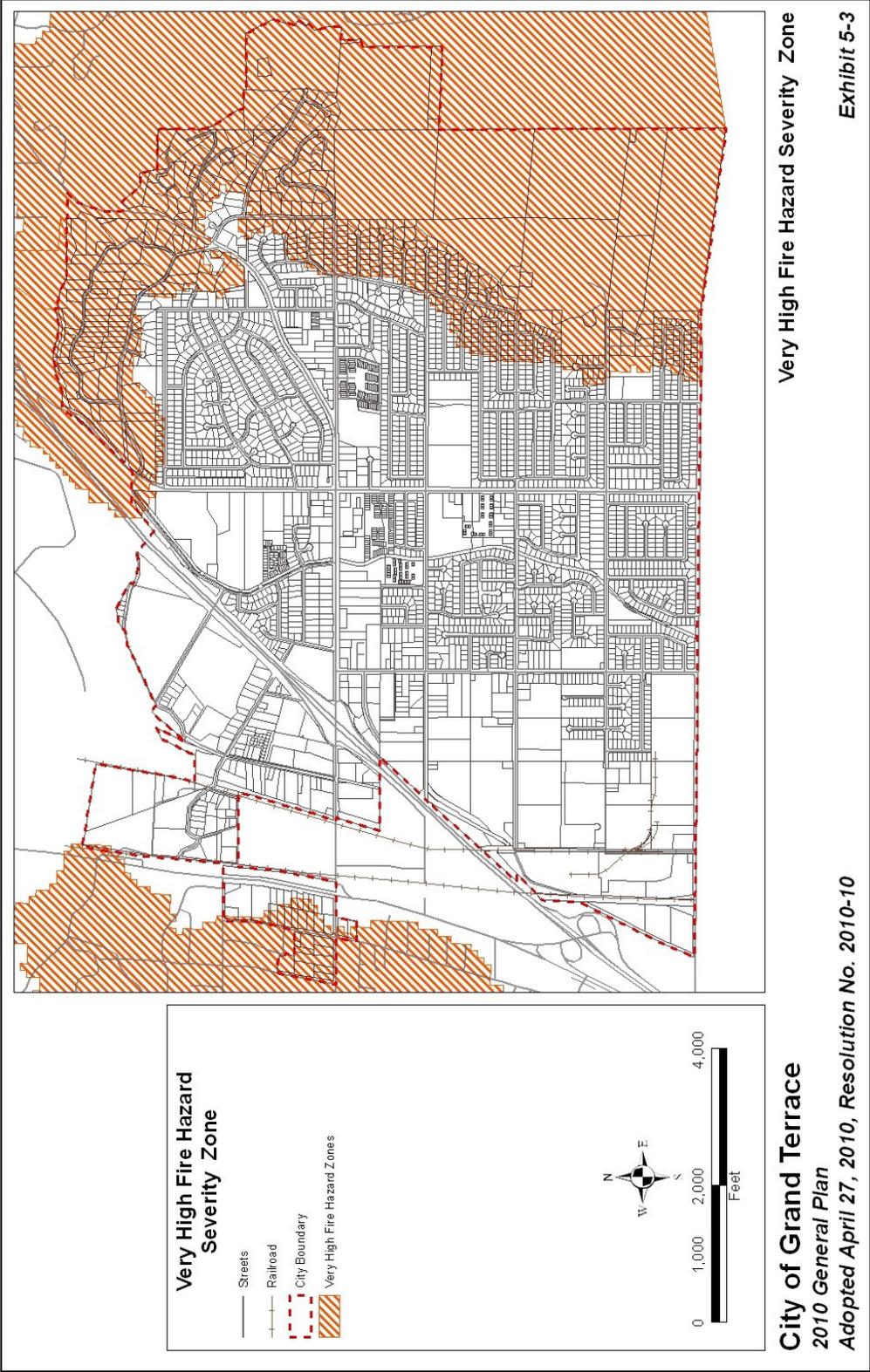
Peak Water Demand and Supply

The primary source of fire suppression is water. Most structures and wildland fires are suppressed by the direct application of water. Therefore, an adequate supply of available water at a high pressure is critical in fighting fires. Water to the City of Grand Terrace is provided by the Riverside Highland Water Company (RHWC). RHWC maintains a series of wells, reservoirs, and transmission mains to provide water for domestic and fire fighting purposes.

The San Bernardino County Fire Protection District has established general fire flow requirements for new development in accordance with the California Fire Code, which takes into consideration occupancy type and building size.



Exhibit 5-3 – Very High Fire Hazard Severity Zone





5.2.5 Emergency Preparedness

In the event of an emergency, all cities are required to be adequately prepared to respond in a timely manner. Emergency response directly relates to the protection of human health and safety as well as the welfare of the general public in times of natural or man-made emergency situations. Emergencies that may require a city response include:

- Major floods or dam inundation
- Earthquakes
- High winds
- Wildfires
- Hazardous materials accidents
- Major transportation accidents
- Industrial explosions

The City of Grand Terrace maintains an emergency operations center that is staffed by the Emergency Operations Committee, a team of volunteers and City staff trained to in emergency response. The City also maintains a Community Emergency Response Team (CERT) program.

The CERT program provides participants with "hands-on" practical training that will enable them to effectively plan for and respond to an earthquake, or other emergencies in and around their neighborhood. CERT is about readiness, people helping people, rescuer safety, and doing the greatest good for the greatest number. CERT was first established by the Los Angeles City Fire Department in 1986. In 1993, the Federal Emergency Management Agency (FEMA), using LAFD's model, began promoting nationwide use of the CERT concept. Since then, CERT has been established in all 50 states. The City regularly conducts



CERT training for those volunteers that wish to become CERT certified. In addition, the City participates in the Statewide Master Mutual Aid Agreement as well as Mutual Aid Agreements with San Bernardino County and surrounding cities. The Federal Emergency Management Agency (FEMA) also provides emergency response services at a federal level.

The American Red Cross also provides emergency support services ranging from a single displaced family at a residential fire to community-wide disaster relief. The Red Cross designates area disaster team coordinators who can immediately coordinate with local emergency service agencies and school districts to establish emergency shelters for displaced



families. The Red Cross also assists in evacuations, identifying missing persons, and reuniting displaced families.

Evacuation Routes

The San Bernardino County General Plan identifies potential evacuation routes in and around the City of Grand Terrace. These include Interstate 10, Interstate 215, and Interstate 15. Major evacuation routes within the City of Grand Terrace include Barton Road, La Cadena Avenue, and Mount Vernon Avenue. Specific evacuation routes depend upon the type of emergency, its location, and any damage caused to the circulation system.

Airport Land Use Compatibility and Safety

The City of Grand Terrace is not located within a defined airport land use zone. There are no public or private airports within the City limits. The closest public airports to the City are San Bernardino International Airport located approximately 6.5 miles northeast of the City and Ontario International Airport located approximately 15 miles west of the City. Since there are no airports located within the immediate vicinity of the City, planning for airport compatibility is not required.

San Bernardino International Airport, which is a distance of approximately 6.5 miles from Grand Terrace, is governed by two joint power authorities, The San Bernardino International Airport Authority (SBIAA) and the Inland Valley Development Agency (IVDA). The SBIAA is comprised of the cities of San Bernardino, Colton, Loma Linda, Highland, as well as the County of San Bernardino. The IVDA is comprised of the cities of San Bernardino, Colton, Loma Linda, and the County of San Bernardino.

The IVDA is responsible for redeveloping the non-aviation related portion of the former Norton Air Force Base, while SBIAA is responsible for redeveloping the airport related portion of the airport. The goal of both the SBIAA and IVDA is to replace the lost jobs in the communities where the base closed, improve the infrastructure, landscape and aesthetics of the local and surrounding areas, and promote economic and aviation related activities to increase the tax base to the region.

Ontario International Airport is owned and operated by the City of Los Angeles. The City of Grand Terrace lies beneath one of the primary approach patterns for Ontario Airport.



5.3 GOALS AND POLICIES

Goal 5.1 Minimize the risk to public health and safety, social and economic welfare of the City resulting from geologic and seismic hazards.

Policy 5.1.1 All new development shall comply with current seismic design standards.

Policy 5.1.2 All proposed developments shall be evaluated for impacts associated with geologic and seismic hazards.

Policy 5.1.3 Existing structures which are seismically unsound shall be identified and programmed for mitigation or removal where necessary to protect the public safety. Cultural and historic significance of buildings shall be considered in this program.

Policy 5.1.4 Grading plans for development projects shall include an approved drainage and erosion control plan to minimize the impacts from erosion and sedimentation during grading.

Goal 5.2 Protect humans and property from hazards associated with slope instability.

Policy 5.2.1 The City shall continue to enforce hillside development standards for proposed developments in areas on or near areas of potential slope instability.

Policy 5.2.2 All new developments in areas of slope instability shall be required to perform adequate geotechnical analysis and provide an engineered design to assure that slope instability will not impact the development.

Goal 5.3 Reduce the risk to life and property in areas designated as flood hazard areas.

Policy 5.3.1 All development proposed within a designated 100-year floodplain shall be reviewed to assure that all structures designated for human habitation are adequately protected from flood hazards.

Policy 5.3.2 The City shall work with the San Bernardino County Flood Control District and Army Corps of Engineers to provide adequate flood protection along the Santa Ana River.

Policy 5.3.3 The City shall evaluate the flood control system of the City and improve it as required and as funds become available.



Policy 5.3.4 The City shall require all development projects to comply with the National Pollutant Discharge Elimination System (NPDES) and implement appropriate Best Management Practices.

Goal 5.4 Reduce the risk to life and property resulting from the use, transportation, storage, treatment, or disposal of hazardous materials and wastes.

Policy 5.4.1 The City shall require that all businesses that produce, use, transport, store, treat, or dispose of hazardous materials and wastes are located away from sensitive land uses such as residences, schools, and hospitals.

Policy 5.4.2 The City shall designate roadways within the City limit that may be used for the transportation of hazardous materials within and through the City.

Policy 5.4.3 The City shall assist the San Bernardino County Fire Protection District in providing public information to the general public regarding the proper transportation, storage and disposal of hazardous materials.

Policy 5.4.4 The City shall participate in San Bernardino County Fire Protection District household hazardous waste collection programs.

Goal 5.5 Maintain a high degree of readiness to respond to natural and man-made disasters.

Policy 5.5.1 Maintain effective emergency preparedness and response programs; and coordinate with appropriate public agencies to develop a regional system to respond to natural and man-made emergencies and catastrophes.

Policy 5.5.2 Establish a working relationship with local amateur radio clubs and secure their voluntary participation in disaster recovery.

Policy 5.5.3 Ensure adequate provision of public information to residents and businesses on actions to minimize damage and facilitate recovery from a natural disaster.

Goal 5.6 Minimize the exposure of residents, business owners, and visitors to the impacts of urban and wildland fires.

Policy 5.6.1: The City shall apply a high fire overlay district to those areas in the City subject to wildland fires such as portions of Blue Mountain.

Policy 5.6.2 Continue the weed abatement program to ensure clearing of dry vegetation areas.

Policy 5.6.3 Encourage the use of fire-resistive construction materials.



5.4 IMPLEMENTATION PROGRAM

Table 5.4 presents the implementation plan designed to implement the policies of the Public Health and Safety Element. One or more implementation activities are provided for each policy. The Implementation Programs identifies:

- The individual policy and proposed action,
- Its relationship to specific projects or overall City policy,
- Primary and secondary responsibility for implementation,
- Potential funding sources, and
- Implementation priority.

The General Plan Implementation Program is presented in a table format. Each policy of the General Plan is presented with the following information:

- **Policy Number:** Shows each policy number by General Plan Element.
- **Action Type:** Indicates whether the policy is project review specific or requires other administrative or judicial actions.
- **Policy Action:** Describes the policy and proposed actions for its implementation.
- **Primary Responsibility:** Indicates what agency is primarily responsible for implementation of the proposed action.
- **Support Responsibility:** Indicates what agencies are responsible for supporting the primary agency.
- **Funding Source:** Indicates the general sources of funding for the implementation action.
- **Priority:** Indicates the level of priority given to the implementation action.

The following codes are used throughout the Implementation Program table:

Implementation Table Codes

Code	Definition
Responsible Agencies	
SOC	State of California
CA	City Attorney
CC	City Council
COC	City of Colton
COSB	County of San Bernardino



Implementation Table Codes

Code	Definition
CD	Community Development Department
CJUSD	Colton Joint Unified School District
CM	City Manager
CRA	Community Redevelopment Agency
CS	Community Services Department
ENG	City Engineer
FCD	County Flood Control District
FD	Fire Department
FIN	Finance Department
GTF	Grand Terrace Foundation
PW	Public Works/Building & Safety Department
RHWC	Riverside Highland Water Company
SANBAG	San Bernardino Association of Governments
SBC	San Bernardino County
SCAG	Southern California Association of Governments
SD	Sheriff's Department
US	United States Federal Government
Funding Sources	
CFD	Community Facilities District
FG	Federal Grants
GF	City General Fund
ISF	Impact/Service Fee
LMD	Landscape Maintenance District
PF	Private Funds
PP	Public/Private Partnership
RDA	Redevelopment Agency
SG	State Grants
UAF	User/Application Fees
Priorities	
1	Current. Action already implemented.
2	Urgent. Action should be undertaken within the next fiscal year. It is either required by law or is critical to the City.
3	Important. Action should be taken in the near future. It may be necessary for the completion of other actions.
4	Ongoing. Action is continuous or is the continuation of an existing action or program. It requires no further action to implement.
5	Desirable. Action would benefit the community, but does not require short term implementation or may require other actions to be taken first.



Implementation Table Codes

Code	Definition
6	Optional. Action has a relatively low priority, but is desirable. It is not critical to other actions.



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
Public Health and Safety Element							
Goal 5.1: Minimize the risk to public health and safety, social and economic welfare of the City resulting from geologic and seismic hazards							
5.1.1	X	X	All new development shall comply with current seismic design standards.				
			a. As part of project review include conditions of approval requiring compliance with most current State seismic design requirements.	PW	CD	GF	1
5.1.2	X	X	All proposed developments shall be evaluated for impacts associated with geologic and seismic hazards.				
			a. As part of the CEQA review process for new development projects, evaluate potential geotechnical and seismic impacts to the project as required by CEQA.	PW	CD	GF	1
5.1.3	X	X	Existing structures which are seismically unsound shall be identified and programmed for mitigation or removal where necessary to protect the public safety. Cultural and historic significance of buildings shall be considered in this program.				
			a. Any existing structure requesting a modification that requires a building permit shall be evaluated for compliance with most recent State seismic standards.	PW	CD	GF	1
			b. An assessment of the City's existing buildings shall be performed to identify seismically unsound buildings and a plan shall be initiated for their rehabilitation or demolition.	PW	CD, CS	GF	4
5.1.4	X		Grading plans for development projects shall include an approved drainage and erosion control plan to minimize the impacts from erosion and sedimentation during grading.				
			a. Plans shall conform to all standards adopted by the City and meet the requirements of Storm Water Pollution Prevention Plans (SWPPP) for construction and a Water Quality Management Plan for long-term operation.	PW	CD	UAF	4
Goal 5.2: Protect humans and property from hazards associated with slope instability.							
5.2.1	X	X	The City shall continue to enforce hillside development standards for proposed developments in areas on or near areas of potential slope instability.				
			a. Review the Hillside development standards and update them, if necessary.	CD	PW, CA	GF	3



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
5.2.2	X	X	All new developments in areas of slope instability shall be required to perform adequate geotechnical analysis and provide an engineered design to assure that slope instability will not impact the development.				
			a. As part of the development review process, all projects located within areas with steep slopes or along the foot of Blue Mountain are required to prepare a slope stability analysis prepared by a license geotechnical engineer.	PW	CD	UAF, GF	4
Goal 5.3: Reduce the risk to life and property in areas designated as flood hazard areas.							
5.3.1	X	X	All development proposed within a designated 100-year floodplain shall be reviewed to assure that all structures designated for human habitation are adequately protected from flood hazards.				
			a. As part of the development review process, all projects located within a designated 100- year floodplain are required to provide a flood hazard mitigation program.	PW	CD	UAF	4
5.3.2		X	The City shall work with the San Bernardino County Flood Control District and Army Corps of Engineers to provide adequate flood protection along the Santa Ana River.				
			a. Cooperate with the County Flood Control District and Corps of Engineers regarding future improvements along the Santa Ana River.	PW	CD, CS, CM	GF	4
5.3.3		X	The City shall evaluate the flood control system of the City and improve it as required and as funds become available.				
			a. Review the current City storm drain plan master plan and update as necessary. Identify priorities and provide improvements as funding becomes available.	PW	CD	GF	3
			b. Review all proposed development projects for their impact to the City storm drain system. Require hydrology studies for new development projects that have a potential to impact the drainage system and condition projects to construct onsite and offsite drainage facilities to mitigate project-specific impacts.	PW	CD	GF	1
5.3.4	X	X	The City shall require all development projects to comply with the National Pollutant Discharge Elimination System (NPDES) and implement appropriate Best Management Practices.				



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
			a. All development projects that fall under the provisions of the NPDES program shall be conditioned to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) for construction and a Water Quality Management Plan for long-term operation.	PW	CD	GF	1
Goal 5.4: Reduce the risk to life and property resulting from the use, transportation, storage, treatment, or disposal of hazardous materials and wastes.							
5.4.1	X	X	The City shall require that all businesses that produce, use, transport, store, treat, or dispose of hazardous materials and wastes are located away from sensitive land uses such as residences, schools, and hospitals.				
			a. Review the Zoning Ordinance regarding the location of facilities that use hazardous materials. Develop design guidelines regarding the siting of land uses using hazardous materials. Include an analysis of hazardous materials in all CEQA review.	CD	PW, CFD	GF	1
5.4.2		X	The City shall designate roadways within the City limit that may be used for the transportation of hazardous materials within and through the City.				
			a. In cooperation with the San Bernardino County Sheriff, California Highway Patrol, and San Bernardino County Fire Protection District identify routes for the movement of hazardous materials through the City and provide public information regarding the routes.	CS	PW, CD, SD, SOC	GF	3
5.4.3		X	The City shall assist the San Bernardino County Fire Protection District in providing public information to the general public regarding the proper transportation, storage and disposal of hazardous materials.				
			a. Make City media sites, including the Blue Mountain Outlook, public access television, and the City website available to County agencies for the dissemination of public information regarding household hazardous wastes and hazardous materials management.	CS	SBC, CFD	GF, SG	4



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
5.4.4		X	The City shall participate in San Bernardino County Fire Protection District household hazardous waste collection programs.				
			a. Work with the San Bernardino County Fire Protection District to coordinate local household hazardous waste collection programs including identifying potential local sites for periodic use as collection sites.	CS	PW, SBC	SG, FG, GF	3
Goal 5.5: Maintain a high degree of readiness to respond to natural and man-made disasters.							
5.5.1		X	Maintain effective emergency preparedness and response programs; and coordinate with appropriate public agencies to develop a regional system to respond to natural and man-made emergencies and catastrophes				
			a. Regularly review and update as needed the City's Emergency Operations Plan in consultation with San Bernardino County authorities and update, as needed, to stay current with State guidelines and local needs.	CM	CD, CS, PW, FD, SD	GF	5
			b. Continue to support area wide mutual aid agreements and communication links with San Bernardino County authorities and other participating jurisdictions.	CM	CD, CS, PW, FD, SD	GF	5
			c. Continue to conduct citywide earthquakes drills, and encourage communication and cooperation between emergency response staff and designated contacts at hospitals, high-occupancy buildings, and dependent care facilities.	CM	CD, CS, PW, FD, SD	GF	
5.5.2			Establish a working relationship with local amateur radio clubs and secure their voluntary participation in disaster recovery.				
			a. Utilize the emergency operations committee to establish a voluntary disaster recovery amateur radio club.	CM	CS, PW	GF	5
5.5.3			Ensure adequate provision of public information to residents and businesses on actions to minimize damage and facilitate recovery from a natural disaster.				
			a. Cooperate with other agencies in the preparation and dissemination of public information materials to assist residents and business owners in responding to local disasters.	CM	CS, PW, FD, SD	GF	5



Policy	Project Review	Initiative	Policy/Action	Primary Responsibility	Support Responsibility	Funding Source	Priority
Goal 5.6: Minimize the exposure of residents, business owners, and visitors to the impacts of urban and wildland fires.							
5.6.1			The City shall apply a high fire overlay district to those areas in the City subject to wildland fires such as portions of Blue Mountain.				
			a. As part of the General Plan and Zoning Ordinance updates, designate areas subject to high fire hazards with an overlay zone that establishes special development standards and criteria to mitigate the potential fire hazard.	CD	PW, FD	GF	5
			b. Review the vulnerability of new development in areas with the potential for wildland-urban interface fires and incorporate appropriate mitigation measures in the conditions of approval.	CD	PW, FD	UAF	4
5.6.2			Continue the weed abatement program to ensure clearing of dry vegetation areas.				
			a. The City shall continue to work with the San Bernardino County Fire Protection District in its enforcement of the weed abatement program.	FD	CS, CD, PW	UAF	4
5.6.3			Encourage the use of fire-resistive construction materials.				
			a. Encourage property owners with wood roofs and flammable siding to replace them with Class-A, non-wood roof systems, and other fire-resistive materials.	PW	CD, FD	UAF	5