# CHAPTER 14. HUMAN-CAUSED HAZARDS

#### 14.1 GENERAL BACKGROUND

Although the DMA does not require an assessment of human-caused hazards, City of Roseville officials decided to include human-caused hazards in this hazard mitigation plan for the following reasons:

- The City of Roseville takes a proactive approach to disaster preparedness, especially in an effort to protect the public safety of all citizens.
- Preparation for and response to a human-caused disaster will involve many of the same staff training, critical decisions, and commitment of resources as a natural hazard.
- The multi-hazard mitigation planning effort is an opportunity to inform the public about all hazards, including human-caused hazards.
- The likelihood of a human-caused hazard in Roseville is greater than several of the identified natural hazards in this Plan.
- The City has a Terrorism Contingency Plan (June 2004) and a Hazardous Materials Contingency Plan (September 2004) already in place with instructions for a response by City of Roseville first responders and staff to the Emergency Operations Center (EOC).

Human-caused hazards fall into the following categories:

- Acts of terrorism are intentional, criminal, malicious acts.
- Technological hazards are incidents that arise from human activities such as the manufacture, transportation, storage and use of hazardous materials. These incidents are assumed to be accidental in nature with unintended consequences.

This report does not address human-caused hazards to the Roseville water treatment facilities, because the City evaluated those facilities in a separate report per EPA requirements. Information on that evaluation is available from the Roseville City Manager's Office.

# 14.1.1 Terrorism and Weapons of Mass Destruction

The Federal Bureau of Investigation (FBI) categorizes terrorism in the United States primarily as one of two types:

#### **DEFINITIONS**

Acts of Terrorism—The unlawful use or threatened use of force or violence against people or property with the intention of intimidating or coercing societies or governments. Terrorism is either foreign or domestic, depending on the origin, base, and objectives of the terrorist or organization.

**Technological Hazards**—Hazards from accidents associated with human activities such as the manufacture, transportation, storage and use of hazardous materials.

**Weapons of Mass Destruction**—Chemical, biological, radiological, nuclear, and explosive weapons associated with terrorism.

Hazardous Material—A substance or combination of substances that, because of quantity, concentration, physical, chemical, or infectious characteristics, may cause or contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or pose a present or potential hazard to human life, property, or the environment. Hazardous waste is included in the City's working definition.

- Domestic terrorism involves groups or individuals whose terrorist activities are directed at elements of our government or population without foreign direction. The bombing of the Alfred P. Murrah federal building in Oklahoma City is an example of domestic terrorism. The FBI is the primary response agency for domestic terrorism. The FBI coordinates domestic preparedness programs and activities of the United States to limit acts posed by terrorists including the use of weapons of mass destruction (WMDs).
- International terrorism involves groups or individuals whose terrorist activities are foreign-based and/or directed by countries or groups outside the United States, or whose activities transcend national boundaries. Examples include the 1993 bombing of the World Trade Center, the U.S. Capitol, and Mobil Oil's corporate headquarters and the attacks of September 11, 2001 at the World Trade Center and the Pentagon.

The three key elements to defining a terrorist event are as follows:

- Activities involve the use of illegal force.
- Actions are intended to intimidate or coerce.
- Actions are committed in support of political or social objectives.

As detailed in the City's Terrorism Contingency Plan, at least three important considerations distinguish terrorism hazards from other types of hazards.

- In the case of chemical, biological, and radioactive agents, their presence may not be immediately obvious, making it difficult to determine when and where they may have been released, who has been exposed, and what danger is present for first responders and emergency medical technicians.
- There is limited scientific understanding of how these agents affect the population at large.
- Terrorism evokes very strong emotional reactions, ranging from anxiety, to fear, to anger, to despair, to depression.

Those involved with terrorism response, including public health and public information staff, are trained to deal with the public's emotional reaction swiftly as response to the event occurs. The area of the event must be clearly identified in all emergency alert messages to prevent those not affected by the incident from overwhelming local emergency rooms and response resources therefore reducing service to those actually affected. The public will be informed clearly and frequently about what government agencies are doing to mitigate the impacts of the event. The public will also be given clear directions on how to protect the health of individuals and families.

According to FEMA 386-7, terrorism refers to the use of weapons of mass destruction, including biological, chemical, nuclear and radiological weapons; arson, incendiary, explosive and armed attacks; industrial sabotage and intentional hazardous materials releases; agro-terrorism and cyber-terrorism. The following are potential methods used by terrorists that could affect the City of Roseville as a direct target or collaterally:

- Conventional bomb
- · Biological agent
- Chemical agent
- Nuclear bomb
- Radiological agent

- Arson/incendiary attack
- Armed attack
- Cyber-terrorism
- Agro-terrorism
- Intentional hazardous material release.

Table 14.1 provides a hazard profile summary for terrorism-related hazards. For each type of hazard, the following factors are addressed:

- **Application Mode**—Application mode describes the human acts or unintended events necessary to cause the hazard to occur.
- **Duration**—Duration is the length of time the hazard is present. For example, the duration of a tornado may be just minutes, but a chemical warfare agent such as mustard gas, if unremediated, can persist for hours or weeks under the right conditions.
- **Dynamic or Static Characteristics**—These characteristics of a hazard describe its tendency, or that of its effects, to either expand, contract, or remain confined in time, magnitude, and space. For example, the physical destruction caused by an earthquake is generally confined to the place in which it occurs, and it does not usually get worse unless aftershocks or other cascading failures occur; in contrast, a cloud of chlorine gas leaking from a storage tank can change location by drifting with the wind and can diminish in danger by dissipating over time.
- Mitigation and Exacerbating Conditions—Mitigating conditions are characteristics of the target and its physical environment that can reduce the effects of a hazard. For example, earthen berms can provide protection from bombs; exposure to sunlight can render some biological agents ineffective; and effective perimeter lighting and surveillance can minimize the likelihood of someone approaching a target unseen. In contrast, exacerbating conditions are characteristics that can enhance or magnify the effects of a hazard. For example, depressions or low areas in terrain can trap heavy vapors, and a proliferation of street furniture (trash receptacles, newspaper vending machines, mail boxes, etc.) can provide hiding places for explosive devices.

Most terrorist events in the United States have been bombing attacks, involving detonated and undetonated explosive devices, tear gas, pipe bombs, and firebombs. The effects of terrorism can vary from loss of life and injuries to property damage and disruptions in services such as electricity, water supplies, transportation, or communications. Any of the methods above may have an immediate effect or a delayed effect. Terrorists often choose targets that offer limited danger to themselves and areas with relatively easy public access. Foreign terrorists look for visible targets where they can avoid detection before and after an attack such as international airports, large cities, major special events, and high-profile landmarks.

In dealing with intentional human-caused hazards, the unpredictability of human beings must be considered. People with a desire to perform criminal acts may seek out targets of opportunity that may not fall into established lists of critical areas or facilities. The City of Roseville first responders train not only to respond to organized terrorism events, but also to respond to random acts by individuals who, for a variety of reasons ranging from fear to emotional trauma to mental instability, may choose to harm others and destroy property.

While education, heightened awareness, and early warning of unusual circumstances may deter crime and terrorism, intentional acts that harm people and property are possible at any time. Public safety entities would then react to the threat, locating, isolating, and neutralizing further damage and investigating potential scenes and suspects to bring criminals to justice.

	TABLE 14-1. EVENT PROFILES FOR TERRORISM						
Hazard	Application Mode	Hazard Duration	Static/Dynamic Characteristics	Mitigating and Exacerbating Conditions			
Conventional Bomb	Detonation of explosive device on or near target; delivery via person, vehicle, or projectile.	Instantaneous; additional "secondary devices, and/or diversionary activities may be used, lengthening the time duration of the hazard until the attack site is determined to be clear.	Extent of damage is determined by type and quantity of explosive. Effects generally static other than cascading consequences, incremental structural failure, etc.	Overpressure at a given standoff is inversely proportional to the cube of the distance from the blast; thus, each additional increment of standoff provides progressively more protection. Terrain, forestation, structures, etc. can provide shielding by absorbing and/or deflecting energy and debris.  Exacerbating conditions include ease of access to target; lack of barriers and shielding; poor construction; and ease of concealment of device.			
Chemical Agent	Liquid/aerosol contaminants can be dispersed using sprayers or other aerosol generators; liquids vaporizing from puddles/ containers; or munitions.	Chemical agents may pose viable threats for hours to weeks depending on the agent and the conditions in which it exists.	Contamination can be carried out of the initial target area by persons, vehicles, water, and wind. Chemicals may be corrosive or otherwise damaging over time if not remediated.	Air temperature can affect evaporation of aerosols. Ground temperature affects evaporation of liquids. Humidity can enlarge aerosol particles, reducing inhalation hazard. Precipitation can dilute and disperse agents but can spread contamination. Wind can disperse vapors but also cause target area to be dynamic. The micro-meteorological effects of buildings and terrain can alter travel and duration of agents. Shielding in the form of sheltering in place can protect people and property from harmful effects.			
Arson/ Incendiary Attack	Initiation of fire or explosion on or near target via direct contact or remotely via projectile.	Generally minutes to hours.	Extent of damage is determined by type and quantity of device, accelerant, and materials present at or near target. Effects generally static other than cascading consequences, incremental structural failure, etc.	Mitigation factors include built-in fire detection and protection systems and fire-resistive construction techniques. Inadequate security can allow easy access to target, easy concealment of an incendiary device, and undetected initiation of a fire.  Non-compliance with fire and building codes, as well as failure to maintain existing fire protection systems, can substantially increase the effectiveness of a fire weapon.			

	TABLE 14-1 (continued). EVENT PROFILES FOR TERRORISM						
Hazard	Application Mode	Hazard Duration	Static/Dynamic Characteristics	Mitigating and Exacerbating Conditions			
Armed Attack	Tactical assault or sniping from remote location, or random attack based on fear, emotion, or mental instability.	Generally minutes to days.	Varies based on the perpetrators' intent and capabilities.	Inadequate security can allow easy access to target, easy concealment of weapons, and undetected initiation of an attack.			
Biological Agent	Liquid or solid contaminants can be dispersed using sprayers/ aerosol generators or by point or line sources such as munitions, covert deposits, and moving sprayers.	Biological agents may pose viable threats for hours to years depending on the agent and the conditions in which it exists.	Depending on the agent used and the effectiveness with which it is deployed, contamination can be spread via wind and water. Infection can spread via human or animal vectors.	Altitude of release aboveground can affect dispersion; sunlight is destructive to many bacteria and viruses; light to moderate wind will disperse agents but higher winds can break up aerosol clouds; the micrometeorological effects of buildings and terrain can influence aerosolization and travel of agents.			
Cyber- terrorism	Electronic attack using one computer system against another.	Minutes to days.	Generally no direct effects on built environment.	Inadequate security can facilitate access to critical computer systems, allowing them to be used to conduct attacks.			
Agro-terrorism	Direct, generally covert contamination of food supplies or introduction of pests and/or disease agents to crops and livestock.	Days to months.	Varies by type of incident. Food contamination events may be limited to specific distribution sites, whereas pests and diseases may spread widely.  Generally no effects on built environment.	Inadequate security can facilitate adulteration of food and introduction of pests and disease agents to crops and livestock.			
Radiological Agent	Radioactive contaminants can be dispersed using sprayers/ aerosol generators, or by point or line sources such as munitions.	Contaminants may remain hazardous for seconds to years depending on material used.	Initial effects will be localized to site of attack; depending on meteorological conditions, subsequent behavior of radioactive contaminants may be dynamic.	Duration of exposure, distance from source of radiation, and the amount of shielding between source and target determine exposure to radiation.			

Hazard	Application Mode	Hazard Duration	Static/Dynamic Characteristics	Mitigating and Exacerbating Conditions
Nuclear Bomb	Detonation of nuclear device underground, at the surface, in the air, or at high altitude.	Light/heat flash and blast/shock wave last for seconds; nuclear radiation and fallout hazards can persist for years. Electromagnetic pulse from a highaltitude detonation lasts for seconds and affects only unprotected electronic systems.	Initial light, heat, and blast effects of a subsurface, ground, or air burst are static and determined by the device's characteristics and employment; fallout of radioactive contaminants may be dynamic, depending on meteorological conditions.	Harmful effects of radiation can be reduced by minimizing the time of exposure. Light, heat, and blast energy decrease logarithmically as a function of distance from seat of blast. Terrain, forestation, structures etc. can provide shielding by absorbing and/or deflecting radiation and radioactive contaminants.
Intentional Hazardous Material Release (fixed facility or transportation)	Solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers	Hours to days.	Chemicals may be corrosive or otherwise damaging over time. Explosion and/or fire may be subsequent. Contamination may be carried out of the incident area by persons, vehicles, water, and wind.	As with chemical weapons, weather conditions directly affect how the hazard develops. The micrometeorological effects of buildings and terrain can alter travel and duration of agents. Shielding in the form of sheltering in place can protect people and property from harmful effects. Non-compliance with fire and building codes, as well as failure to maintain existing fire protection and containment features can substantially increase the damag from a hazardous materials release.

# 14.1.2 Technological Hazards

Technological hazards are associated with human activities such as the manufacture, transportation, storage and the use of hazardous materials. Incidents related to these hazards are assumed to be accidental with unintended consequences. Technological hazards in Roseville can be categorized as follows:

- Hazardous materials incidents
- Utility losses
- Data and telecommunications disruptions
- Water/wastewater disruption
- Air and transportation accidents
- Infrastructure threats.

#### Hazardous Materials Incidents

Hazardous materials are present in nearly every city and county in the United States in facilities that produce, store, or use them. For example, water treatment plants use chlorine on-site to eliminate bacterial contaminants. Hazardous materials are transported along interstate highways and railways daily. Even the natural gas used in every home and business is a dangerous substance when a leak occurs. Except for severe weather and flooding, hazardous materials incidents are the hazards most likely to affect the City of Roseville.

Title 49 of the CFR lists thousands of hazardous materials, including gasoline, insecticides, household cleaning products, and radioactive materials. State regulated substances that have the greatest probability of adversely impacting the community are listed in the CCR, Title 19.

The following are the most common type of hazardous material incidents:

- **Fixed-Facility Hazardous Materials Incident**—This is the uncontrolled release of materials from a fixed site capable of posing a risk to health, safety and property as determined by the Resource and Conservation Act. It is possible to identify and prepare for a fixed-site incident because federal and state laws require those facilities to notify state and local authorities about what is being used or produced at the site.
- Hazardous Materials Transportation Incident—A hazardous materials transportation incident is any event resulting in uncontrolled release of materials during transport that can pose a risk to health, safety, and property as defined by Department of Transportation Materials Transport regulations. Transportation incidents are difficult to prepare for because there is little if any notice about what materials could be involved should an accident happen. Hazardous materials transportation incidents can occur at any place within the country, although most occur on the interstate highways or major federal or state highways, or on the major rail lines.

Hazardous materials are transported via ground along highways and railways. According to a February 20, 2005 *Sacramento Bee* article, "Union Pacific carried 9.2 million carloads of freight in 2003...throughout the West and part of the South and Midwest." The article quotes a Union Pacific spokeswoman as estimating that "Less than 5 percent of cargo that moves through our West Coast operations is hazardous material."

In addition to materials such as chlorine that are shipped throughout the country by rail, thousands of shipments of radiological materials, mostly medical materials and low-level radioactive waste, take place via ground transportation across the United States. Many incidents occur in sparsely populated areas and affect very few people. There are occasions, however, when materials are involved in accidents in areas with much higher population densities, such as the January 6, 2005 train accident in Graniteville, South Carolina that released chlorine gas killing nine, injuring 500, and causing the evacuation of 5,400 residents. Fortunately, such events are rare.

• Interstate Pipeline Hazardous Materials Incident—There are a significant number of interstate natural gas, heating oil, and petroleum pipelines running through the State of California. These are used to provide natural gas to the utilities in California and to transport these materials from production facilities to end-users.

#### **Utility Losses**

The City of Roseville provides electricity, water treatment and distribution, and wastewater collection and treatment services to citizens and businesses within the city limits. The City also provides solid waste

collection and disposal at the regional landfill just north of the city limits in unincorporated Placer County. Loss of these services due to accidental or terrorist acts would mean a potential life-threatening situation in the case of electricity for medically dependent residents, and a public health threat if the services are disrupted for some time.

A power failure is any interruption or loss of electrical service due to disruption of power generation or transmission caused by an accident, sabotage, natural hazards, equipment failure, or fuel shortage. These interruptions can last anywhere from a few seconds to several days. Power failures are considered significant only if the local emergency management organization is required to coordinate basic services such as the provision of food, water, and heating as a result. Power failures are common with severe weather and winter storm activity.

The City of Roseville Electric Utility is responsible for operating and maintaining the electrical transmission and distribution system in Roseville. The City supplies electricity to about 52,000 residential and business customers within the service area. Roseville Electric's system serves an area of 36 square miles (the area of the City of Roseville) and has more than 130 miles of overhead lines and more than 630 miles of underground lines, according to the 2009 Roseville Electric Annual Report. The distribution lines and substations deliver 325 megawatts during peak demand period from June through September.

Roseville Electric has the highest reliability in the country for municipal utilities of its size, due in large part to a redundant system with sophisticated interconnection between the facilities and immediate notification should failure occur along the distribution system. Despite past electric crises and brownouts in some parts of California in 2000 and 2001, the City of Roseville, through its load management program and load shedding agreements with large, local electric users, avoided any outages during that time.

Roseville has taken a proactive approach to maintaining its reliability standards by building a local generation source—the Roseville Energy Park. The Roseville Energy Park is a natural-gas-fired, combined-cycle electrical generating facility located on an 8.9-acre site adjacent to the Pleasant Grove Wastewater Treatment Plant. Since operations began in 2007, the state-of-the-art, 160-megawatt power generation facility generates enough energy to meet 40 percent of the community's electricity needs.

#### Data and Telecommunications

The loss of data and/or telecommunications is often a secondary hazard to natural and other human-caused hazards. Data and telecommunications provide a primary method for service to the community by the government and the private sector. A loss of data and telecommunications could result in loss of emergency dispatch capabilities, emergency planning services, infrastructure monitoring capabilities, access to statistical data, and loss of financial and personnel records.

#### Water/Wastewater Disruption

Water and/or wastewater disruption is a secondary impact from a natural disaster or intentional act. The City of Roseville receives surface water from the Folsom Reservoir, a one million acre-foot multi-purpose facility east of the city limits. A breach in the dam or the pipelines that carry water to the City's Water Treatment Plant on Barton Road in Granite Bay would have significant temporary impacts on the city until alternative water sources, including water from other regional purveyors and groundwater, are pumped and treated. Long-term disruption of the water source from Folsom Lake would have significant impacts on residences and businesses in Roseville should demand exceed secondary supplies and water conservation measures not provide enough relief to reduce demand to equal the secondary supplies.

Disruption of the City's wastewater collection and wastewater treatment plants at Dry Creek and the new \$120 million facility on Pleasant Grove Creek would also have significant citywide and regional impacts

should the system be overwhelmed by a significant storm or discharge of materials in such quantities that the treatment plant cannot adequately treat the waste. Natural hazards such as earthquake, flood damage or major power outages, or terrorism directed at the facilities and systems, could disrupt the process of treating millions of gallons of waste.

Wastewater treatment plants may also have emergencies internal to the plant such as chlorine gas leaks or oxygen deficiencies that render them incapable of treating waste. The disruption of service may also have significant environmental impacts on the waterways adjacent to the treatment plants.

## Air and Transportation Accidents

Air and transportation accidents are incidents involving air or rail passengers resulting in death or serious injury. The region has a number of airports, including the Sacramento International Airport, as well as several smaller county or municipal airports and private air strips that enhance the potential for an air disaster.

Roseville features several major transportation routes, including Interstate 80 and Highway 65, both of which run through portions of the city. The potential for transportation accidents that block ingress, egress, and movement through the city is significant, as well as the likelihood of hazardous materials incidents resulting from a traffic accident.

#### Infrastructure Threats

Infrastructure threats include threats to telecommunications, utility transportation, economic, information and other systems that allow society to function as it is accustomed to. This threat will increase in the future, and an event directed at any one of these systems could affect the ability of the City's population to go about life in a normal manner.

#### 14.1.3 Civil Disorder

Civil disorder refers to incidents that disrupt a community to the degree that law enforcement intervention is required to maintain public safety. These incidents are generally associated with controversial political, judicial, or economic issues and may occur at any time of the year, although statistics indicate that they are more frequent during summer. While Roseville has no history of civil disorder, large public gatherings associated with concerts or sports events have overburdened local law enforcement and fire protection resources in the past.

The effects of civil disorders vary with the type, severity, scope, and duration of event. Essential services (e.g., electricity, water, public transportation, communications), may be disrupted, or property damage, injuries, and loss of life may occur. Certain facilities most at risk are government buildings, schools, utilities and correctional facilities.

#### 14.2 HUMAN-CAUSED HAZARD PROFILE

## 14.2.1 Past Events

#### State of California

#### Terrorism Events

According to the Governor's Office of Emergency Services Terrorism Response Plan, the State of California has had a long history of defending the public against domestic and foreign terrorists. Domestic terrorist groups in California have been focused on political or social issues, while the limited internationally based incidents have targeted the state's immigrant communities due to foreign disputes.

Advanced technologies and communication have allowed these groups to become more sophisticated and better organized, with remote members linked electronically.

## Technological Hazard Incidents

No comprehensive source was found in state websites or through personal contact with the Sacramento Regional Office of Homeland Security for technological hazard incidents in the State of California. Given the complex system of transportation networks, the large population, and the number of businesses in California, incidents occur on a regular basis throughout the State as reported by the news media.

## Region

## Terrorism Events

Eco-terrorism: Development projects in Placer County were the subject of arson activity by an individual who claimed to be from the Earth Liberation Front or ELF, a splinter group of Earth First!, a radical environmental activist movement. ELF is a somewhat active domestic terrorism group that says it uses eco-sabotage to protect the Earth and to seek revenge on "those who are destroying the Earth and its inhabitants."

Domestic terrorism: On December 3, 1999, the FBI arrested two anti-government militia members who planned a bomb attack at the Suburban Propane facility in Elk Grove, CA. The alleged plot involved a plan to blow up the Suburban Propane site, which stores about 24 million gallons of liquefied propane and is located one mile from residential homes. According to the Sacramento Bee, the plot resulted in heightened on-site security and a year-long investigation resulting in the two arrests.

# Technological Hazard Incidents

Placer County and its incorporated cities have experienced many accidental hazardous materials incidents. Accidents involving high pressure gas lines in the County have caused injury and property damage. An underground Kinder Morgan pipeline failed in 2002 causing a significant spill of diesel fuel within a Rocklin neighborhood adjacent to where the breach occurred (Source: Roseville Fire Department, pers. com with Battalion Chief Jeff Carman).

#### Air and Transportation Accidents

The Sacramento region was once the location of three large military installations including the Sacramento Army Depot, Mather Air Force Base and McClellan Air Force Base. All three have been decommissioned and transferred to civilian uses. The only active military installation is Beale Air Force Base located to the north near Yuba City, California.

While the risk of military aircraft accidents in the area has been reduced with the closure of McClellan Air Force Base, which was the closest military base to the City of Roseville, the region is not immune to air transportation accidents caused by military, private, or commercial aircraft. A review of McClellan Fire Department history (see Table 14-2) identifies several responses made to aircraft accidents near Roseville.

On February 16, 2000, an aircraft crashed after take-off from the Sacramento Mather Airport in Rancho Cordova, California. The cargo flight was bound for Dayton, Ohio and all three crewmembers were killed. The cause of the accident was a mechanical failure. The aircraft crashed into an automobile salvage yard.

Timeframe	Incident
Early 1950s	Apparatus responded to Code 3 alarm at Travis Air Force Base for B-29 crash that involved a nuclear weapon
October 29, 1951	B-29 making an emergency landing crashed and caught fire on Runway 16 injuring 11 crewmen. One firefighter died.
Mid-1950s	EC-121 crashed near Watt Avenue and U Street in Sacramento
Mid-1960s	F-104 crashed next to Haggin Oaks Golf Course.
April 28, 1973	McClellan Fire Department responded to mutual aid at Roseville Rail Yard fire
1982	Multiple alarm structure fire including a chemical warehouse. Toxic smoke column closed Interstate 80 for several hours
Early 1980s	HH-53 helicopter crashed near PFE Road during an air show at McClellan Air Force Base. The helicopter was attempting a refueling operation with a C-130 refueler when the hose became entangled in the rotor.
Early 1980s	F-111 crashed near Woodland

#### Local

# Air and Transportation Accidents

On February 12, 2006, a Glasair II-S FT "experimental" kit plane crashed into a home at 1302 Longfellow Drive in Roseville (see Figure 14-1). The pilot was reported to be performing aerial acrobatics when he lost control of the plane and it crashed. The pilot, his passenger, and a resident in the house were killed, and the home was determined to be a total loss. The fire spread to an adjacent home and caused significant damage, however the residents escaped injury.

#### Arson Events

On October 21, 2010, an arsonist set an incendiary blaze to the Roseville Galleria Mall that caused an estimated \$55 million in property damage (see Figure 14-2). Police responded to the mall after a call from the tenant at GameSpot. They said a young male had entered, said he had a gun, and told them to get out. In truth the male had no gun. When police arrived, the male had locked himself in the store. Once barricaded, he started a fire. The blaze destroyed an entire section of the mall, which is a core of the Sacramento economy. With over 240 stores operated by Westfield, the mall – built in 2000 and renovated in 2008 for \$270 million – has generated \$3.2 million in annual sales tax for the region. Reasons for the arson are unknown. The suspect suffered from mental illness.

#### Terrorism Events

Terrorism incidents in Roseville have been limited to individuals seeking to cause damage at Roseville schools. Pipe bombs have been left at a school facility in one past occurrence. No WMDs have been used in a terrorist attack in Roseville.



Figure 14-1. February 12, 2006 Aircraft Crash into Residence



Figure 14-2. October 21, 2010 Arson Fire at Galleria Mall

## Technological Hazard Incidents

The City of Roseville has had a number of accidental incidents at the Roseville Rail Yard, private businesses and City facilities. The Fire Department has been called to both the Oakmont High School pool and the Roseville Aquatics Center for chlorine leaks. Sewage spills have occurred on occasion and overflowed into the City's creeks. Roseville Rail Yard accidents have included derailments and leaks of toxic chemicals from transporting hazardous materials in the wrong type of railcars.

The worst human-caused disaster in Roseville's history occurred on April 28, 1973 when a train loaded with munitions bound for Vietnam caught fire in the Roseville Yard (see box on page 14-15). No lives were lost, but significant damage to property in Roseville and jurisdictions in Sacramento County occurred during the 18 hours of explosions. In 1997, a number of unexploded bombs were discovered at the yard during construction of a modernization project (see the 1997 Bomb Discovery box on p. 14-16).

With growth in the region and in trips through the region to tourist destinations such as the ski resorts at Lake Tahoe, the number of traffic accidents has been steadily increasing. Fatal traffic accidents since 2003 are shown in Table 14-3. Truck with trailer accidents account for a very small percentage of the City's reported traffic accidents yet represent the highest potential for hazardous materials incidents on roadways in the City of Roseville.

TABLE 14-3. TRAFFIC ACCIDENT COUNTS—2004 TO 2009							
	2004	2005	2006	2007	2008	2009	
Vehicles involved in Fatal Accidents	2,014	2,019	1869	1882	1775	1710	
Fatalities	7	3	4	11	7	5	
Source: http://www.city-data.com/acci	dents/acc-	Roseville-C	alifornia.ht	ml			

Table 14-4 lists the fires responded to by the Roseville Fire Department that involved mobile vehicles. A majority of the mobile vehicle fires are for passenger vehicles, with just one rail car fire each year on average. Approximately 1 percent of the total incidents requiring a response from the Roseville Fire Department are fires involving mobile vehicles.

The Roseville Fire Department responds to an average of 480 hazardous conditions incidents annually, with nearly a third being cleanup after a vehicle accident where the fuel and other vehicle fluids on the ground are considered a hazardous material. Table 14-5 summarizes hazardous incidents since 2005.

#### 14.2.2 Location

The State of California and Office of Homeland Security have identified numerous high profile targets for potential terrorists in California. Large population centers, high visibility tourist attractions, and critical infrastructure accessible to the public present security challenges of an ongoing nature in California. The network of highways, railways, ports and airports used to transport significant amounts of hazardous materials poses a significant technological hazards threat. Hazardous materials incidents may occur anywhere in Placer County. Multiple incidents may happen simultaneously, and all typically require a multi-agency, multi-jurisdictional response. The following sections describe the local areas with the greatest likelihood of hazardous materials incidents, as identified in the *Roseville Hazardous Materials Contingency Plan*.

TABLE 14-4. FIRES INVOLVING MOBILE VEHICLES—2005 TO 2009							
Incident Type 2005 2006 2007 2008 2009							
Fire in motor home, camper, recreational vehicle, or water vehicle	2	1	0	0	0		
Mobile property (vehicle fire), other	3	5	3	4	6		
Passenger vehicle fire	57	50	54	37	48		
Road freight or transport vehicle fire	4	2	4	2	3		
Rail vehicle fire	1	0	3	3	0		
Total—Mobile Vehicle Fires	67	58	64	46	57		
Total Incidents	9,145	9,807	10,029	10,305	10,647		
Mobile Vehicle Fires as % of Total Incidents	0.73%	0.59%	0.64%	0.45%	0.54%		

TABLE 14-5. HAZARDOUS CONDITIONS INCIDENT (NO FIRE) COUNTS—2001 TO 2004							
2005	2006	2007	2008	2009			
14	10	6	11	11			
95	73	85	74	61			
34	42	30	28	40			
51	51	36	61	63			
31	19	30	17	17			
0	3	0	0	0			
231	149	117	79	97			
456	347	304	270	289			
9,145	9,807	10,029	10,305	10,647			
% Hazardous Conditions of Total Incidents 4.99% 3.54% 3.03% 2.62% 2.71%  Source: City of Roseville Fire Department Incident Type Count Reports 2005-2009							
	51 2005 34 51 31 0 231 456 9,145 4.99%	FIRE) COUNTS       2005     2006       14     10       95     73       34     42       51     51       31     19       0     3       231     149       456     347       9,145     9,807       4.99%     3.54%	FIRE) COUNTS—2001 TO           2005         2006         2007           14         10         6           95         73         85           34         42         30           51         51         36           31         19         30           0         3         0           231         149         117           456         347         304           9,145         9,807         10,029           4.99%         3.54%         3.03%	FIRE) COUNTS—2001 TO 2004           2005         2006         2007         2008           14         10         6         11           95         73         85         74           34         42         30         28           51         51         36         61           31         19         30         17           0         3         0         0           231         149         117         79           456         347         304         270           9,145         9,807         10,029         10,305           4.99%         3.54%         3.03%         2.62%			

#### 1973 ROSEVILLE RAIL YARD DISASTER

Roseville's history parallels that of the transcontinental railroad. The federal government passed the act to build the transcontinental railroad in 1862 and shortly thereafter the Central Pacific Railroad was started in Sacramento in 1863. A northern route for the first transcontinental rail line was selected when the South seceded from the Union during the Civil War, and Trustees Charles Crocker, Mark Hopkins, Collis P. Huntington and Leland Stanford started construction on this northern line. The line extended from Sacramento to Rocklin by May 1864 and then construction across the Sierra Nevada Mountains began.

The first structure in Roseville was built in 1864 to serve as a freight and passenger depot for the fledgling railroad. In December 1905, a decision by the Central Pacific Railroad to move the division headquarters from Rocklin to Roseville meant a development boom for Roseville. The junction of the Central Pacific Railroad and the California Central, a north-south line became Roseville, where the largest artificial ice plant in the world operated to keep California's fruit and vegetables fresh as they were transported by rail car to the East. The Pacific Fruit Exchange Ice Plant operated from 1908 to 1974 when all of Southern Pacific's 21,000 rail cars were self-refrigerating.

During wartime, Roseville was a hub of activity as troops and war materials moved through the Roseville rail yards. Thousands of munitions shipments moved through Roseville during World Wars I and II, the Korean and Vietnam conflicts, and Desert Storm.

The largest human-caused disaster in the local area occurred on April 28, 1973 when a wooden floor in a munitions boxcar caught fire from brake shoe sparks. A train engine pulling 103 cars, including 21 Department of Defense freight cars with 7,056 Mark 81 bombs, was loaded at the Navy's ammunition depot in Hawthorne, Nevada on their way to western ports and the Vietnam War.

As the train pulled in to the Roseville yard just west of the Roseville city limits, one of the cars caught fire and the flames spread, igniting other freight cars on the tracks, which were 21 rails wide. Nearly every car was loaded with cargo including paint, lumber, and fertilizer. The most dramatic explosions occurred when cars carrying liquid propane caught fire resulting in explosions that blew out windows five miles away and could be heard 100 miles away. Metal and wood was thrown 3,000 feet into the air.

The result was a series of explosions that caused damages of more than \$5.6 million in Roseville and the neighboring communities of Citrus Heights, Antelope, and North Highlands. No lives were lost, but over 100 people were treated for assorted cuts and bruises caused by broken glass and flying debris.







After 18 hours of explosions, Army munitions teams recovered 1,200 unexploded bombs scattered around the area and collected another 300 from rail cars. Aerial photographs from that time show a railroad smoldering and piled with twisted track, shattered cars, and scraps of metal from bomb casings. Much of the debris was buried in the 10-foot-deep craters left by the blast.

Milestones & Memories: the Story of Roseville, California, 1850-2000 by Leonard "Duke" Davis

#### 1997 BOMB DISCOVERY

In 1997, Union Pacific Railroad began work on a \$130 million project to modernize the Roseville train yard, including significant automation improvements and the replacement of 86 miles of track with 136 miles of new track.

During project grading, backhoe operators uncovered a Mark 81 bomb intact. Bomb disposal experts from Moffett Field in Mountain View, California were flown in by the Sacramento Sheriff's Department to dispose of the bomb, which they do by digging a pit and exploding the ordnance. When another eight bombs were discovered at the western end of the yard in Antelope, California unexploded ordnance experts from Moffett Field were called back and made the decision to place the bombs in pits and build berms around them. The Sacramento County Sheriff evacuated 300 to 400 homes near the rail yard, and at 2 a.m. blew up the bombs. The explosions shattered windows, cracked walls, and rained shrapnel through the roofs of nearby homes

In all, recovered materials included 16 unexploded MK 81 bombs; 11 partial fragments containing explosive residue; 8,625 pounds (4.31 tons) of bomb fragments; and 131,560 pounds (65.78 tons) of ferrous material. Experts found the bombs were not fused (armed), making them less likely to accidentally detonate. The bombs not destroyed on-site were packaged and transported to a facility in Colfax, Louisiana for detonation.



#### **Transportation Routes**

The following transportation facilities all have the potential for human-caused hazards:

- Interstate 80 and State Route 65 bisect the City.
- The J.R. Davis Yard in Roseville, the largest train yard west of the Mississippi, is a major Union Pacific switching center built in 1907 (see Figure 14-3). The 850-acre yard includes 136 miles of track. The site includes a former railcar rebuilding facility, the Antelope Yard, fueling areas, and diesel servicing facilities. The site has been designated as contaminated by the federal government, with substances including volatile organics, chlorinated solvents, polynuclear aromatic hydrocarbons, and heavy metals present due to the decades of continuous use as a railroad repair and switching facility. Remediation is ongoing at the site.



Figure 14-3. The J.R. Davis Yard in Roseville, the Largest Train Yard West of the Mississippi

- Sacramento International Airport in northwestern Sacramento County operates continuously with two major runways and thousands of passengers traveling via commercial and private airlines. Several major airlines operate out of Sacramento International Airport, with most flying light- to medium-weight passenger jets. Approach and takeoff patterns are usually over rural farmland; however, occasionally patterns are adjusted over more populated locations including Roseville. The city is more than 20 miles from Sacramento International Airport and is not in the direct flight path for the airport, although planes do cross Roseville continuously at high altitudes.
- Additional airports within a 20-mile radius of Roseville include the Lincoln and Auburn Airports in Placer County, Beale Air Force Base (34 miles to the north and the closest active military installation), McClellan Airfield, and the Yuba County airport. The instrument-landing approach to Runway 16 at McClellan crosses a portion of the western edge of the Sierra Vista Specific Plan area. Aircraft on approach reach altitudes as low as 1,600 feet at Baseline Road (approximately 4 miles from the runway threshold). Aircraft using McClellan Airpark include aircraft as large as Boeing 747 and 707 aircraft, in addition to Coast Guard

- C-130s. Additionally, the National Guard flies T-38 aircraft and Blackhawk helicopters out of Mather Air Force Base.
- Sutter Roseville Medical Center maintains a helistop for critically injured patients flown to the hospital. At one time, the facility was limited to accepting just one helicopter. If another patient was being transported to the medical center, the Roseville Fire Department had to respond to the helipad and emergency medical personnel were on standby should anything occur with more than one helicopter using the helipad. The landing area has been expanded and now the helistop has the capacity to accept more than one helicopter at any one time.
- Emergency and public safety helicopter traffic as well as media aircraft and small commercial aircraft frequently fly over the interstates to respond to emergencies and provide public information via local news media.
- Roseville has a number of established truck routes with a higher potential for hazardous material incidents to occur as a result of traffic incidents, as shown in Figure 14-4.

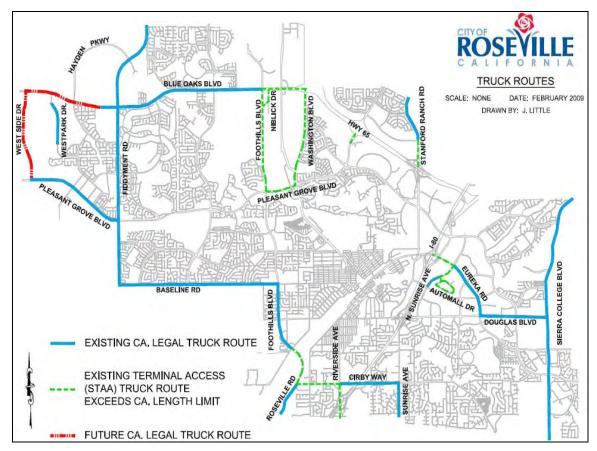


Figure 14-4. Roseville Truck Routes with High Potential for Hazardous Materials Incidents

# **Pipelines**

The Kinder Morgan company owns 3 miles of pipelines generally parallel to the Union Pacific railroad tracks in Roseville that transport high volumes of natural gas through the City (Figure 14-5 shows the company's national pipelines). Other natural gas pipelines run along Interstate 80 with connections between Roseville and Chico. The route to Chico travels through residential areas from the tank farm in Rocklin. The trans-Sierra route from the tank farm in Rocklin to Reno roughly follows the same track as Interstate 80. Pacific Gas and Electric maintains natural gas pipelines in and through Roseville as well.

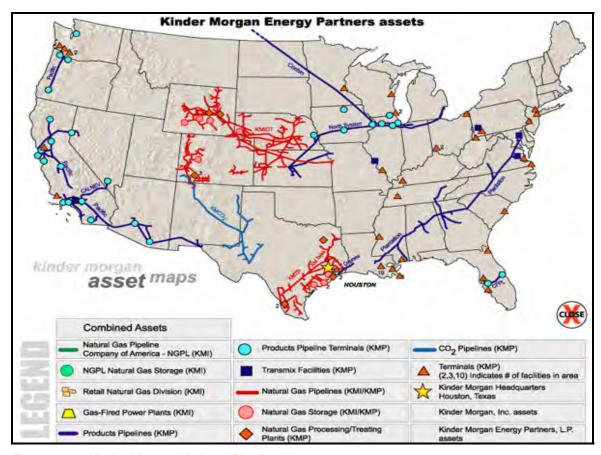


Figure 14-5. Kinder Morgan National Pipeline Map

#### **Business and Industrial Areas**

Retail, manufacturing and light industrial firms near State Route 65 (northeastern Roseville and the Sunset Industrial Area of Rocklin) are areas of concern. These facilities have the highest concentration of hazardous materials at fixed facilities in Roseville due to their manufacturing operations. Each business is required to file a detailed, confidential plan with the Roseville Fire Department regarding materials onsite and safety measures taken to protect the public.

#### Agricultural

Accidental releases of pesticides, fertilizers, and other agricultural chemicals may be harmful to both humans and the environment. Agricultural pesticides are transported daily in and around Roseville en route to their destination in rural areas of Placer County.

## **Illegal Drug Operations**

Illegal operations such as laboratories for methamphetamine pose a significant threat. Laboratory residues are often dumped along roadways or left in rented hotel rooms, creating a serious health threat to unsuspecting individuals and to the environment.

#### Illegal Dumping Sites

Hazardous wastes such as used motor oil, solvents, or paint are occasionally dumped in remote areas of Placer County and Roseville or along roadways, creating a potential health threat to unsuspecting individuals and to the environment.

#### Radioactive Materials

Licensed carriers transport radioactive materials along several transportation routes (Interstate 80 and the railroads) through the City of Roseville. The City is notified in advance of these shipments and commits resources as a standby measure should an accident occur.

# 14.2.3 Frequency

#### **Terrorism**

In 2003, with input from the City of Roseville, Placer County conducted a State Homeland Security Assessment Survey to review terrorism vulnerabilities, personnel available to respond, and equipment needed. The resulting information is classified and available only to first responders at the time of an emergency (per state and federal laws).

As of 2008, California's economy was the largest of any state in the U.S.. Placer County's proximity to the state capitol presents unique conditions for terrorist attacks. The transportation, energy, and communications systems that cross the county have impacts on the local, regional, and even national economy. In general the risks of a terrorist event involving a WMD are as follows:

- Chemical—The risk of a chemical event is present in the City of Roseville. The agricultural community in Placer County uses and stores significant amounts of chemicals for peaceful and productive means that could be used in destructive ways.
- **Explosives**—Pipe bomb and suspicious package events have occurred in Placer County and Roseville in the past. While none of the events has been specifically identified as a WMD, the elements necessary to construct a WMD are readily available. Additionally, the agricultural communities maintain sufficient products and quantities for use in explosive events.
- Radiological/Nuclear—The major transportation arteries for vehicles or rail that cross through or near the City of Roseville contribute to the risk of a radiological event. Such products can unknowingly pass through any one of the regional transportation corridors.
- **Biological**—Anthrax incidents that occurred in the U.S. in October 2001 demonstrate the potential for spreading terror through biological WMDs. The introduction of Newcastle disease in the United States demonstrates how an agent can be introduced to livestock, causing harm to public health and the economy.
- Combined Hazards—WMD agents can be combined to have a greater total effect. When combined, the impacts of the event can be immediate and longer-term. Casualties will likely suffer from both immediate and long-term burns and contamination. Given the risks associated with chemical agents in Placer County and the City of Roseville, the possibility exists for such a combined event to occur.

# Technological

Hazardous material incidents may occur at any time in the City of Roseville, given the presence of transportation routes bisecting the city, the location of businesses and industry that use hazardous materials, the presence of scattered illegitimate businesses such as clandestine drug laboratories at any given time, and the improper disposal of hazardous waste.

# 14.2.4 Severity

The severity of human-caused hazards is challenging to measure. Severity could range from a minor transportation accident or power outage to a full-scale terrorist attack.

The term multi-casualty incident (MCI) is often applied to transportation accidents involving air and rail travel, as well as multi-vehicle highway accidents. However, MCIs may also result from hazardous materials incidents or acts of violence, such as shootings or hostage situations. Effects may include serious injuries, loss of life, and associated property damage.

Because large numbers of patients may be involved, significant MCIs may tax local emergency medical and hospital resources, and therefore require a regional response. MCIs may occur throughout the City, day or night, at any time of the year: Interstate 80, State Route 65, and State Route 49 offer the potential for MCIs because of the heavy volume of traffic, although no highway or surface street in the City is exempt from this hazard.

The railroad tracks traversing Placer County, carrying Amtrak passengers as well as freight, also face the risk of an MCI, as do the air corridors above the county. Adverse weather may also play a role in roadway, air, or rail accidents. MCIs may also result from acts of violence or terrorism, which could include a chemical, biological or radiological incident, contaminating persons and requiring mass decontamination.

In Placer County, a multi-casualty incident is defined as any incident with three or more fatalities or critically injured. The first responders, including Roseville Fire, Roseville Police, and emergency room staffs at the local hospitals, follow the same protocol for an MCI whether the number of dead and injured is three, 30 or 300. Mutual aid is requested should the City of Roseville officials be unable to respond appropriately with available personnel and equipment.

# 14.2.5 Warning Time

According to the Roseville Terrorism Contingency Plan, only 5 percent of all terrorism incidents are preceded by a warning, and in the case of a technological hazard, accidents occur without predictability under circumstances that give responders little time to prepare.

#### 14.3 SECONDARY HAZARDS

Human-caused hazards are not like natural hazards that have measurable secondary impacts. The largest secondary impact caused by human-caused hazards would be economic. Economic impacts from human-caused hazards could be significant:

- The cost of a terrorist act would be felt in terms of loss of life and property, disruption of business activity and long-term emotional impacts. Recovery would take significant resources and expense at the local level.
- Utility losses could cause a reduction in employment, wholesale and retail sales, utility
  repairs, and increased medical risks. The City may lose sales tax and property taxes and the
  finances of private utility companies and the businesses that rely on them would be disrupted.
- The economic impact computer security breaches associated with data and telecommunications losses can be staggering as.
- The economic impacts should a transportation facility be rendered impassable would be significant. The loss of a roadway or railway would have serious effects on the city's economy and ability to provide services. Loss of travel routes on Interstate 80 or State Route 65 would result in loss of commerce, and could impact the City's ability to provide emergency services to its citizens by delaying response times or limiting routes for equipment such as fire apparatus, police vehicles, and ambulances. The ability to receive fuel deliveries would also be impacted.

• The effects of re-routed traffic could have a serious impact on local roadways. For example, the closure of the roadway at Folsom Dam has resulted in severe local traffic and the closure of businesses in downtown Folsom due to lack of traffic along the Dam Road route. Heavy traffic on routes through central Roseville already occurs at peak commute times when Interstate 80 is congested. Traffic control may burden the City's Public Works Department. Mass transit services would also be impacted as routes may be delayed or forced to be detoured causing economic impacts to Roseville transit and its users.

## 14.4 CLIMATE CHANGE IMPACTS

Climate change would have no effect on the risk associated with human-caused hazards.

## 14.5 EXPOSURE

The human-caused hazard risk assessment is based on a system that measures a facility's criticality and physical vulnerability. Criticality is a measure of the potential consequence of an accidental or terrorist event as well as the attractiveness of the facility to a potential adversary or threat. The criticality for each critical facility is based on the factors shown in Table 14-6. The criticality for each critical facility is based on the following:

- Awareness—How aware is the public of the existence of the facility, site, system, or location?
- Hazardous Materials—Are flammable, explosive, biological, chemical and/or radiological materials present on site?
- Collateral Damage Potential—What are the potential consequences for the surrounding area if the asset is attacked or damaged?
- Site Population—What is the potential for mass causalities, based on the capacity of the facility.
- Public or Emergency Functions—Does the facility perform a function during an emergency? Is this facility or function capable of being replicated elsewhere?

TABLE 14-6. CRITICALITY FACTORS						
Criterion	Low	Medium	High			
Awareness	Not known/Neighborhood	City/Region/County	State/National			
Hazardous Materials	None / limited & secure	Moderate—Large Secure	Large/Minimum or no Security			
Collateral Damage Potential	None or low	Moderate/Immediate Area or within 1 mile radius	High/Immediate Area or within 1 mile radius			
Site Population	0 - 300	301-1,000	1,001 or greater			
Public/ Emergency Function	No emergency function, or could be used in the future for emergency function	Support Emergency Function—Redundant Site	Emergency Function— Critical Service with or without redundancy			

Vulnerability is a measure of the physical opportunity for an accident or an adversarial attack. This assessment takes into consideration physical design, existing countermeasures, and site layout. The vulnerability for each critical facility is based on the criteria shown in Table 14-7. The vulnerability for each critical asset is based on the following:

- Accessibility—How accessible is the facility or site to the public?
- Automobile Proximity—How close can an automobile get to the facility? How vulnerable is the facility to a car bomb attack?
- Asset Mobility—Is the facility or asset's location fixed or mobile? If mobile, how often is it moved, relocated, or repositioned?
- Proximity to other critical facilities—If the facility is close to other critical facilities then there could be an increased probability of the facility receiving collateral damage.
- Secure design—General evaluation of areas of obstruction, air intake locations, parking lot and road design and locations and other site design aspects.

TABLE 14-7. VULNERABILITY CRITERIA						
Criterion	Description	Low	Ratings Medium	High		
Accessibility	How accessible is the facility or site to the public?	Remote location, secure perimeter, tightly controlled access	Controlled access, protected or unprotected entry	Open access, unrestricted, patrolling security, sign restrictions		
Automobile Proximity	How close can an automobile get to the facility? How vulnerable is the facility to a car bomb attack?	Not within 75' - 100'	Not within 25' - 50'	Adjacent or not within 10'		
Asset Mobility	Is the facility location fixed or mobile? If mobile, how often is it moved, relocated, or repositioned?	Moves or is relocated frequently	Moves or is relocated occasionally	Permanent/Fixed		
Proximity to other Critical Facilities	If the facility is close to other critical facilities, there is an increased chance of the facility receiving collateral damage.	Greater than 1.5 – 2 miles	Greater than 3/4 - 1 mile	Within 1/2 – 3/4 mile		
Secure Design	General evaluation of areas of obstruction, air intake locations, parking lot and road design and locations and other site design aspects.	No areas for concealment of packages, air intakes are on roof, access ways are not under the structure.	Area of concealment present, greater than 25' from the structure; Air intakes located at least 10' above ground, may have under structure access drives.	Areas of concealment within 25', air intakes at ground level, under structure access drives.		

# 14.5.1 Population

A human-caused hazard event could range from an isolated accident to a highly coordinated act of destruction by multiple agents upon multiple targets. Large-scale incidents have the potential to kill or injure many citizens in the immediate vicinity, and may also affect people a relative distance from the initial event. This report does not consider a set distance to determine those more or less at risk. Variables

affecting exposure for a WMD attack and a hazardous material accident include the type of product, the physical and chemical properties of the substance, the physical state of the product (solid, liquid, or gas), the ambient temperature, wind speed, wind direction, barometric pressure, and humidity.

Computer models are used by Roseville's Hazardous Materials teams to provide general data to first responders to advise evacuations or sheltering in place. With so many variables to determine "toxic endpoints" as defined by the California Environmental Protection Agency, distances are difficult to forecast. In general, those close to the city's transportation corridors or businesses with acutely hazardous materials are more at risk for some sort of effect; but again, each chemical incident will be different and the scenarios are too numerous to describe in this plan.

Hazardous materials pose a significant risk to emergency response personnel. All potential first responders and follow-on emergency personnel in the City of Roseville currently are and will be properly trained to the level of emergency response actions required of their individual position at the response scene. Hazardous materials also pose a serious long-term threat to public health and safety, property and the environment.

# 14.5.2 Property

According to the City of Roseville's 2025 General Plan, there were 46,960 housing units in the City. Single-family detached residential units account for 75.8 percent of the total developed residential units in Roseville according to the City's current General Plan. The total number of units by type of dwelling unit is shown in Table 14-8. According to Real Facts Data for the second quarter of 2007, 4.6 percent of the multifamily housing units in Roseville were vacant.

TABLE 14-8. RESIDENTIAL DWELLING UNITS IN THE CITY OF ROSEVILLE AS OF 2007					
Type of Unit	Existing Citywide Units				
Single Family	35,596				
Mobile Home	563				
Multi-Family (>=3 units attached)	10,801				
Total 46,960					
Source: City of Roseville 2025 General Pla	n, Housing Element				

Roseville has over 27 million square feet of developed non-residential land uses covering over 3,000 acres city-wide. A majority of this development has occurred since the mid-1980s when the specific plan process was established and large tracts of land were entitled for development. Roseville and Placer County are among the fastest growing communities in California, making them a higher profile target for terrorism. New development has been the target of arson fires and eco-terrorism in the County.

## 14.5.3 Critical Facilities and Infrastructure

There are no high profile federal or state buildings in Roseville. Critical facilities are limited to City facilities, Placer County facilities, and other government facilities such as the U.S. Post Office, private utility infrastructure and administrative offices, and medical facilities. Roseville's civic facilities are

designed to welcome the public, with convenient parking and customer service areas. Except for the Roseville Police Facility, there are limited secure areas that are restricted to the public. Based on the criticality factors and vulnerability criteria described above, these facilities are all at risk because of their accessibility, automobile accessibility, and lack of a secure or hardened design.

Several of Roseville's critical emergency response facilities are located adjacent to the Roseville Rail Yard and pressurized underground pipelines, including the Roseville Civic Center, a primary location for City staff and services, the Roseville Fire Department, which houses administration functions in Fire Station No. 1, and the City's EOC. Significant regional critical facilities such as the Placer County courts and the main office for the U.S. Post Office are also close to the rail yard.

The Roseville Hazard Mitigation Plan Steering Committee and City staff assessed the number of large gathering places in the City. These sites are defined as follows:

- Any facility listed as Type A-2.1 per the California UBC. These facilities have an assembly room with an occupant load of 300 or more without a stage (34 locations)
- All buildings listed as Type E-1, used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or four hours in any one day (29 facilities)
- Any facility likely to have an occupancy greater than 300 such as a large employment center, retail center, cultural center, or place of worship.

The large gathering places, such as the Roseville Civic Center (see Figure 14-6) are vulnerable to a human-caused hazard due to several factors:

- All are accessible to the general public, to accommodate aesthetically pleasing urban design and customer service.
- Design features, including types of building materials, and screened enclosures for mechanical equipment and solid waste, limit visibility and may contribute to the damage incurred should an intentional or accidental event occur.
- Automobile access is required in the design of most buildings in Roseville, with disabled access parking and easily accessible parking a valued feature.
- Most high population centers do not feature any limitations to access by the public or vehicles, although restricted access to large employment center sites with acutely hazardous materials is built into the design at these facilities.

#### 14.5.4 Environment

The risk of human-caused hazards to the environment is considerable. Hazardous materials spilled along roads or railways could easily pollute rivers, streams, wetlands, riparian areas and adjoining fields. Other hazardous materials released into the air could severely impact plant and animal species. The City of Roseville recognizes this risk and has taken steps to reduce the risk exposure to the natural environment. By reducing the risk exposure to the built environment, the city will also mitigate potential losses to the natural environment.



Figure 14-6. Roseville Civic Center

#### 14.6 VULNERABILITY

# 14.6.1 Population

Although human-caused hazards have not resulted in a large number of deaths in this area, this type of hazard can be deadly and widespread. Injuries and casualties were not estimated for this hazard. Any individuals exposed to human-caused hazards are considered to be at risk, particularly those working as first responder professionals.

# 14.6.2 Property

All structures in Roseville are physically vulnerable to a human-caused hazard. The emphasis on accessibility, the opportunity for roof access, driveways underneath some structures, unmonitored areas, the proximity of many structures to transportation corridors and underground pipelines, and the potential for a terrorist to strike any structure randomly all have an impact on the vulnerability of structures. Specific vulnerabilities are on file with the Roseville Fire Department as part of the 2003 State Homeland Security Assessment Survey and surveys conducted to complete this mitigation plan.

# 14.6.3 Critical Facilities and Infrastructure

Most critical facilities and infrastructure in Roseville would be vulnerable to human-caused hazards, including utilities, data and telecommunications systems, and transportation facilities.

#### 14.6.4 Environment

The environment vulnerable to a human-caused hazard is the same as the environment exposed to the hazard. While human-caused disasters have caused significant damage to the environment, estimating damage can be difficult. Loss estimation platforms such as HAZUS-MH are not equipped to measure environmental impacts of these types of hazards. The best gauge of vulnerability of the environment would be a review of damage from past human-caused hazard events. Loss data for damage to the

environment were not available at the time of this plan update. Capturing this data from future events could be beneficial in measuring the vulnerability of the environment for future updates.

# 14.6.5 Economic impacts

Economic impacts from human-caused hazards could be significant. The cost of a terrorist act would be felt in terms of loss of life and property, disruption of business activity and long-term emotional impacts. Recovery would take significant resources and expense at the local level.

Utility losses could cause a reduction in employment, wholesale and retail sales, utility repairs, and increased medical risks. The City may lose sales tax and property taxes, and the finances of private utility companies and the businesses that rely on them would be disrupted.

The economic impact of data and telecommunications losses can be staggering as computer security breaches, crime conducted via the world wide web such as identify theft, and many more forms of human-caused economic losses occur daily. Millions of dollars are lost each year as criminals and cyberterrorists steal sensitive information and funds from individuals and organizations.

The economic impacts should a transportation facility be rendered impassable would be significant. The loss of a roadway or railway would have serious affects on the city's economy and ability to provide services. Loss of travel routes on Interstate 80 or State Route 65 would result in loss of commerce, and may impact the City's ability to provide emergency services to its citizens by delaying response times or limiting routes for equipment such as fire apparatus, police vehicles, and ambulances. The ability to receive fuel deliveries would also be impacted.

The effects of re-routed traffic could also have a serious impact on local roadways. For example, the closure of the roadway at Folsom Dam has resulted in severe local traffic and the closure of businesses in downtown Folsom due to lack of traffic along the Dam Road route. Heavy traffic on routes through central Roseville already occur at peak commute times when Interstate 80 is congested. Traffic control may burden the City's Public Works Department. Mass transit services would also be impacted as routes may be delayed or forced to be detoured, causing economic impacts on Roseville transit and on those who ride buses in Roseville.

#### 14.7 FUTURE TRENDS IN DEVELOPMENT

Roseville is expected to grow by about 29,000 residents over the next 15 years. Total population is expected to exceed 162,000 by 2025. Residential development is anticipated to increase in the next few years. Significant non-residential development will occur as well with development of a high-rise hotel and office buildings likely in the near future. The potential for human-caused hazards in Roseville is not likely to lessen or prohibit development in Roseville.

The threat of human-caused hazards and the availability of Homeland Security Funds will influence future development of the City's critical facilities. For example, a redundant or backup EOC is a critical need as the City's fire facilities are planned. The design of multi-purpose use facilities, such as the Mahany Library (which also includes a community center and the public access studio) can be used as both an emergency response command center on the west side of Roseville and an information center to inform the public through the internet and broadcast facilities that will be on site.

# 14.8 REVIEW OF EXISTING ORDINANCES, PROGRAMS, AND PLANS 14.8.1 City of Roseville Emergency Response Plan

Adopted on July 21, 2004, the current Roseville Emergency Operations Plan addresses the planned response to emergency situations associated with natural disasters, technological (human-caused) emergencies, and war emergency operations in or affecting the City of Roseville. The plan is both an operational plan as well as a reference document for pre-emergency planning and emergency operations. It establishes the following:

- An Emergency Management Organization to mitigate any significant emergency or disaster affecting the City of Roseville
- Policies, responsibilities and procedures to protect the health and safety of citizens, public and private property, and the environment from the effects of natural and human-caused emergencies and disasters
- Operational concepts and procedures associated with field response to emergencies, EOC activities, and the recovery process
- an organizational framework for implementing the Standardized Emergency Management System (SEMS) in Roseville.

The Emergency Operations Plan also outlines the natural and human-caused hazards most likely to occur in Roseville. It provides significant detail for each responding section assigned to City staff and mutual aid agencies prior to an emergency—management, operations, planning, logistics and finance. Roseville's Emergency Preparedness Manager conducts periodic tabletop and simulated exercises in conjunction with the Placer County Office of Emergency Services and affiliate agencies such as Sutter Roseville Medical Center and Kaiser Permanente Medical Center to ensure that staff is prepared and adequate resources are in place prior to any incident.

City of Roseville departments and other agencies providing emergency response within the city will review this plan at least annually in association with the Multi-Hazard Mitigation Steering Committee. Any changes resulting from the annual review will be published and distributed to jurisdictions and agencies holding this plan.

Every five years, this plan, in its entirety, will be reviewed by the Multi Hazard Mitigation Steering Committee, updated, republished, and redistributed.

# 14.8.2 City of Roseville Terrorism Contingency Plan

The City of Roseville Terrorism Contingency Plan was prepared in 2004 with grant funds provided through the State Office of Emergency Services by the U.S. Department of Homeland Security. The Plan was prepared in collaboration with the Placer County Office of Emergency Services, Placer County staff and representatives of the six incorporated cities in the Placer County Operational Area.

The Terrorism Plan provides an overview of how the Emergency Operations Plan will be activated, how resources will be organized, and how staff will respond with state and federal resources. Specifically, the Plan has the following provisions:

- Identifies how local, state, and federal response resources are integrated.
- Establishes a common response protocol to terrorist threats and events.
- Implements existing mutual aid programs.

• Outlines a unified strategic plan for all responders.

The Terrorism Plan is on file with the City of Roseville Fire Department. The City's Emergency Response Manager conducts training for all those assigned responsibilities as part of the plan in addition to coordinating with the Placer County Office of Emergency Services and other agencies charged with protecting the public in the event of a terrorist attack.

# 14.8.3 City of Roseville Hazardous Materials Contingency Plan

The Hazardous Materials Contingency Plan, completed in September 2004, identifies non-terrorist related hazard materials responsibilities in order for the City to prepare, respond and recover from an event. The objectives of the Hazardous Materials Plan are as follows:

- Establish policies and responsibilities for protecting the health and safety of the general population and visitors in the City of Roseville and surrounding communities, the environment, and public and private property from the effects of accidental hazardous materials incidents.
- Identify the emergency response organizations that are responsible for managing hazard materials incidents in or near the City of Roseville.
- Establish operational concepts for staffing, training, operating and supporting the City of Roseville Hazard Materials team. The Plan is coordinated with the Placer Operational Interagency Response Team Hazard Plan.
- Direct all individuals, agencies, and departments referenced in the Plan to develop standard operating procedures and emergency response checklists that are consistent with the Hazardous Materials Plan and the City's Emergency Operations Plan.

# 14.8.4 State of California Certified Unified Program Agency

The City of Roseville is a State of California Certified Unified Program Agency (CUPA). This designation identifies the City as a licensing agency for six hazardous-material-related programs. The CUPA designation enables the City of Roseville to implement its own hazardous materials emergency response program. Mutual aid agreements are also in place for incident response. Each business that responds yes to any of the following questions must submit a Unified Program Consolidated Form with facility information to the Roseville Fire Department:

- Hazardous Materials—Do you have on site hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases, or the applicable threshold for an extremely hazardous substance specified in federal law; or do you handle radiological materials in quantities for which an emergency plan is required pursuant to applicable law?
- Underground Storage Tank—Do you have on-site underground storage tanks?
- Aboveground Storage Tank—Do you have on-site above-ground storage tanks for storage of petroleum?
- Hazardous Waste—Do you operate a facility that generates, recycles, or treats hazardous waste, among other activities?

# 14.8.5 Roseville Police Department

Following the provisions and emergency response, mitigation, and recovery structure of the State Emergency Management System (SEMS), the federally mandated National Incident Management System,

and the National Response Plan, the Roseville Police Department is prepared to meet the challenge of intentional criminal acts, including acts of terrorism, as well as technological, accidental, or natural hazards in the following ways:

- Activation of local emergency response plans using multi-disciplinary resources, including but not limited to regional municipal and county law enforcement, the Joint Terrorism Task Force overseen by the FBI, the Department of Justice Anti-terrorism Information Center, state and federal military personnel, and private resource agencies
- Deployment of local tactical resources to mitigate human-caused acts of terrorism or intentional business disruption. Tactical responders include SWAT, hostage negotiators, rapid containment team, the tactical communications team, and explosive ordnance personnel as necessary
- Use of the Crime Scene Investigations Unit for post-incident evidence collection and investigation
- Intake, processing, analysis, and investigation of all incidents with the potential for large-scale impact in a professional, timely manner.

# 14.8.6 Roseville Public Safety Communications

Communications personnel are prepared to take the following actions:

- Appropriately recognize and document citizens' reports of suspicious activity.
- Deploy appropriate resources to prevent, investigate, mitigate, and provide recovery services following incidents of human caused hazards, as well as natural and technological disasters.
- Coordinate resource management of personnel, equipment, and facilities during established crisis incidents.
- Work within the framework of the State Emergency Management System to provide emergency communications to field units and emergency operations personnel during emergency events.
- Deploy mutual aid assistance in support of local, state, and national entities during crisis incidents.
- Provide life-saving pre-arrival instructions on emergency medical incidents, both large-scale and of an individual nature.

# 14.8.7 Roseville Fire Department

# Training

Roseville Fire Department personnel are highly trained to handle all aspects of emergency service. All first response personnel are trained in incident command, advanced firefighting skills, basic life support, essential rescue skills, and basic hazardous materials response. All first response personnel are trained to meet or exceed the following state training certification levels: Firefighter I & II, CPR, Emergency Medical Technician I, Hazmat First Responder Operations Decon and ICS 200.

To support these first responders, specialized teams of personnel are trained and certified in tower rescue, above/below grade rescue, confined space rescue, trench rescue, technical rescue, swift water rescue, dive rescue, specialized hazard materials response, hazard materials railcar and tank truck response, terrorism response, multi-casualty management, and advanced life support.

The department's staffing includes a full time training officer who oversees the Fire Training Division. In addition to the training officer, the department draws from a cadre of state certified ICS, fire, EMS, hazmat and technical rescue instructors to conduct regular training exercises to maintain and enhance competency of personnel in all aspects of emergency response. The department also sends personnel to the National Fire Academy, California Specialized Training Institute, Hazmat Continuing Challenge and other off site programs for advanced certifications and training.

The Fire Department maintains a state of the art training facility within the city limits. The Fire Training Center includes two classrooms, a six story burn tower, command center and other specialized training props such as above and below grade vaults, tanks, cargo tanks and a rail tank car. The Roseville Fire Training Center has been state certified as a regional fire academy and for Hazardous Materials Technician / Specialist, USAR Rescue Systems and Confined Space training.

In addition to training in-service response personnel, the Roseville Fire Training Center hosts a regional fire academy in cooperation with Sierra College. The Roseville Fire Training Center also provides regional training to other fire agencies, some of which are under contract with the Department of Homeland Security. Regular regional training includes the Hazardous Materials Technician / Specialist series, Low Angle Rope Rescue, Trench Rescue, Confined Space Rescue, and USAR Rescue Systems I.

## Response Time and Mutual Aid

The Roseville Fire Department is a fully functional agency that primarily provides fire suppression and emergency medical services for the urban environment of the city.

The Roseville Fire Department operates eight stations. The Department operates eight paramedic engine companies, with a minimum staffing of three, two paramedic truck companies with a minimum staffing of four, and two Battalion Chiefs. The Department also operates a Hazardous Materials Response Unit (cross-staffed by the truck company); five Grass/Wildland units, and one Technical Rescue unit (all cross-staffed by Engine Companies). The Department currently maintains four reserve engines and one reserve truck.

The Fire Department has established a Standards of Response Coverage Plan that includes a travel time standard of four minutes from the time the apparatus leaves the station to the arrival of the first engine on scene. Due to significant growth in the city, additional fire stations are needed to achieve this response time. Fire Station 9 is currently being planned to serve the new development anticipated in West Roseville.

The City of Roseville has mutual aid agreements with local fire departments and districts in surrounding Placer County and Sacramento County. These personnel cooperate in the same training program as do the City firefighters to ensure a high level of competency even with borrowed resources. If this level of aid does not meet the incident needs, the department participates in the statewide mutual aid system to bring additional resources from anywhere in California, and if needed, the nation.

## Hazardous Materials Response

# Hazardous Materials Listing

All hazardous materials handlers that store in excess of 55 gallons, 500 pounds, or 200 cubic feet of gas are required to submit Hazardous Materials Management Business Plans. From these plans, emergency responders are provided emergency contact information, site-specific chemical inventories, and vicinity as well as facility maps. Facilities storing materials that are "acutely" hazardous and in excess of the quantities in CCR, Title 19, Tables 1, II or III must submit a more comprehensive Risk Management Plan,

which includes off-site consequences analysis, maintenance, and training programs, and an executive summary. Owners/operators of aboveground tanks containing in excess of 660 gallons of petroleum hydrocarbons (or an aggregate quantity of 1,320 gallons) must comply with the state Aboveground Petroleum Storage Act, which requires the preparation of a Spill Prevention, Control, and Countermeasure Plan.

Fire Department staff requires the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses by those businesses. The list is maintained by the Fire Department Life Safety/Hazardous Materials Officer and updated periodically.

## Development Review Process

The Fire Department reviews any development proposal that may be impacted by or cause an impact related to the storage, handling, or disposal of hazardous materials. A Hazardous Materials Management Plan and if necessary, a Risk Management Prevention Plan is required as part of the development process per state law. The use of toxic or hazardous materials requiring the filing of a business plan for emergency response pursuant to Section 25503.5 of the California Health and Safety Code or materials identified in Section 5194, Title 8 of the CCR is critically analyzed by the City when considering any use. All users shall submit a list of hazardous and toxic materials with a qualified discussion of potential chronic and acute long-term health effects, including those on children, from acute short-term or chronic long-term exposure.

In addition, a plan shall be submitted specifying procedures for mitigating the emissions of toxic substances and groundwater monitoring and for identifying methods of hazardous waste disposal. All projects shall be reviewed for compliance with the Placer County Hazardous Waste Management Plan.

# Intergovernmental Coordination

The Roseville Fire Department works cooperatively with other local and state agencies in a coordinated effort to inform and educate the public regarding the storage, handling, and disposal of household hazardous materials. This includes continued coordination with the Placer County Hazardous Materials Response Teams.

#### Hazardous Waste Drop-off

The City of Roseville partners with both public and private entities to remove household hazardous waste from Roseville's waste stream. The disposals include the following:

- Household Hazardous Waste Collection—The Western Placer Waste Management Authority provides a collection for household hazardous waste every Wednesday, Saturday and Sunday from 8 am to 4 pm at the Materials Recovery Facility north of Roseville. Acceptable materials include paints, cleaners, solvents, oil and poisons that should not be disposed of at the landfill. Materials prohibited by California State law include explosives, radioactive materials, and business or contractor waste. According to state law, the amount of waste per visit must not exceed five gallons or 50 pounds. More information is available at http://www.wpwma.com/hhw.htm.
- Used Electronic Equipment—The Materials Recovery Facility accepts old televisions and computer monitors. Fees for television disposal are \$15 for a TV less than 21 inches and \$21 if larger than 21 inches. Computer monitors can be disposed of for \$12.
- Used Motor Oil Recycling—There are six locations in Roseville designated for used motor oil recycling drop-off.

• Sharps (or Needles)—Roseville residents who use medical needles for in-home care are encouraged to purchased sharps containers, which hold 100 needles, at a nominal cost from several drug stores in the city. Residents are asked to dispose of all medical needles and containers properly so they do not enter the waste stream.

#### Hazardous Materials Database

The City of Roseville Fire Department maintains a database that includes chemical inventory disclosure, emergency contacts, and facility maps for all business plans of 400 businesses including five businesses with acutely hazardous materials. The businesses are subject to the California Accidental Release Prevention Program.

## Interagency Cooperation for Emergency Response

The City of Roseville Fire Department responds in accordance with the City of Roseville Hazardous Materials Emergency Response Plan to hazardous materials emergencies. Both the California Highway Patrol and the City of Roseville have developed a Hazardous Materials Emergency Plan that discusses the participants' responsibilities, organization and operation to be complied with in the event of a hazardous materials emergency, including clean-up and decontamination procedures.

#### Hazardous Materials Truck Route

The City of Roseville does not have specific truck routes for hazardous materials. The City of Roseville does have established truck routes in the city limits, and in the event hazardous materials are to be transported within the city limits, a permit is required from the Roseville Police Department. Typically trucks with bulk deliveries of hazardous materials use State Route 65 to Blue Oaks Boulevard and then access any of the north-south corridors including Washington Boulevard, Industrial Avenue, and Foothills Boulevard where local businesses use hazardous materials in their business activities.

Routes for hazardous materials are coordinated with the California Department of Transportation (Caltrans), the California Highway Patrol, and the Roseville Police, Fire, and Public Works Departments.

Since Blue Oaks Boulevard remains incomplete, the risk of transporting hazardous material on bulk trucks through residential areas to reach the Pleasant Grove Wastewater Treatment Plant and the Energy Park is worth noting. The same scenario applies in transporting hazmat to the Booth Road plant, but fortunately chlorine gas is no longer used for disinfection there (nor at other water plants serving Roseville).

#### Hazardous Materials Fee Program

The Roseville Fire Department has adopted a fee schedule for hazardous material permitting, storage, use, handling, and generation. The Roseville Fire Department also charges for fire and life safety inspections, plan review, and miscellaneous activities such as a Hazardous Materials Business Plan Review.

#### 14.9 SCENARIO

Two human-caused hazard scenarios could have a significant impact on the City of Roseville. The first scenario would involve hazardous materials being transported via rail or highway systems (Interstate 80) that bisect the planning area. The release of hazardous materials via intentional or unintentional means could impact large population centers within the city. Advance knowledge of these shipments and their contents would play a role in preparedness for this scenario, thus reducing its potential impact. The biggest issue in response to hazardous material is material identification and containment.

The second scenario that could have a significant impact on the planning area would be a terrorist event at a large gathering place such as a mall or event center. Terrorist events happen with little or no warning. With a population in excess of 100,000 people, Roseville does possess potential targets for terrorist activities. The city has taken steps to assess these sites as well as probable scenarios in its Terrorism Contingency Plan.

## **14.10 ISSUES**

Important issues associated with human caused hazards in Roseville that support future mitigation actions include but are not limited to the following:

- Participate in regional, state and federal efforts to gather terrorism information at all levels and keep public safety officials briefed at all times regarding any local threats. Staff will then further develop response capabilities based on emerging threats.
- Continue all facets of emergency preparedness training for Police, Fire, Public Works, and
  City Manager/Public Information staff in order to respond quickly in the event of a humancaused disaster. Enhance awareness training for all city employees to recognize threats or
  suspicious activity in order to prevent an incident from occurring.
- Continue all facets of the City's hazardous materials team training and response through commitment of resources from the Fire Department budget and the addition of funding through the Sacramento Regional Homeland Security budget.
- Continue to improve response times for public safety throughout the City so as to reduce exposure to human-caused incidents. The City will maintain appropriate staffing levels of public safety personnel to address vulnerabilities identified in this chapter.
- Train first responders and all appropriate City staff to implement protocols contained in the City of Roseville Terrorism Response Plan.
- Continue to implement the City of Roseville Hazardous Materials Contingency Plan with enhancements as warranted by the type of uses in the City and new technologies in preventing hazardous materials incidents.
- Continue to work proactively with Union Pacific Railroad regarding placards and labeling of containers, emergency plans and coordination, standardized response procedures, notification of the types of materials being transported through Roseville on at least an annual basis; random inspections of transporters as allowed by Union Pacific; installation of mitigating techniques along the rail yard at critical locations; routine hazard communication initiatives; enhancing security along the rail corridor should the alert system go higher than Orange; and continuously looking to the use of safer alternative products to conduct rail transport operations.
- Continue regular testing of the alarm system along the Union Pacific railroad tracks in Central Roseville.

The City's participation in **regional efforts** to prevent human-caused hazards includes the following:

- Commit support to the Sacramento Urban Area Security Initiative by dedicating fire and police personnel to the Sacramento office as funded with Homeland Security grants
- Participate in the Governor's Office of Emergency Services Disaster Resistant California annual conference and other training sessions sponsored by regional, state and federal agencies.

- Utilize Crime Prevention Through Environmental Design (CPTED) in future planning efforts as well as enhancing existing infrastructure and buildings to prevent or mitigate human-cause incidents. CPTED is an urban planning design process that integrates crime prevention with neighborhood design and community development. CPTED is based on the theory that the proper design and effective use of the built environment can reduce crime and the fear of crime and improve the quality of life. CPTED creates an environment where the physical characteristics, building layout, and site planning allow inhabitants to become key agents in ensuring their own security.
- Participate in regional training exercises per the requirements of Homeland Security Presidential Directive #8 in support of national preparedness. These training exercises, sponsored by the Sacramento Regional Office of Homeland Security, will test and evaluate the ability to coordinate the activities of city, county and state government first responders, volunteer organizations and the private sector in responding to terrorism and technological hazards. The trainings will enhance interagency coordination, provide training to staff, test response and recovery capabilities, and activate the National Incident Management System and the mutual aid system.
- Work with the private sector to enhance and create Business Continuity Plans in the event of an emergency.
- Review existing automatic/mutual aid agreements with other public safety agencies to identify opportunities for enhancement.
- Relocate or construct a redundant Emergency Operations Center farther from the Roseville Rail Yard and floodplain.
- Maintain an emergency services information line (774-5812) that the public can contact 24 hours a day during an emergency incident to ask questions of emergency staff.
- Coordinate with all Roseville school districts to ensure that their emergency preparedness plans include preparation for human-caused incidents.
- Encourage local businesses to adopt Information Technology and telecommunications recovery plans.
- Promote 72-hour self-sufficiency through the Emergency Preparedness Manager's efforts, the Roseville website, Roseville Coalition of Neighborhood Associations, and other media.
- Continue to share the human-caused hazard risk and preparedness presentation given at the public meetings and City Council workshop as part of this preparedness effort.
- Maintain the on-line Citizens Advisory Panel of 2,400 households and periodically e-mail emergency preparedness information including human-caused hazard preparedness instructions and reminders.