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The quality of life in Rancho Santa Margarita is directly impacted by the sense of security of its residents and businesses. Addressing the issues of crime and violence, other human caused hazards, as well as preparing a response to uncontrollable natural hazards to provide a safe and enjoyable environment for citizens is important. The Safety Element establishes goals, policies, and a plan to ensure that there is an adequate, coordinated, and expedient response to public safety concerns.

The purpose of the Safety Element is to identify and address those features or characteristics existing in or near Rancho Santa Margarita that represent a potential hazard to the community’s citizens, sites, structures, public facilities, and infrastructure. The Safety Element establishes policies to minimize the danger to residents, workers, and visitors, while identifying actions needed to manage crisis situations such as earthquakes, fires, and floods. The Element also focuses on preventing criminal activity and violence before they occur. Additionally, the Safety Element contains specific policies and programs to regulate existing and proposed development in hazard-prone areas. Continuing education of City officials and citizens about emergency preparedness is also addressed.

The Safety Element satisfies the requirements of State planning law and is a mandated component of the General Plan. Government Code section 65302(g) sets forth a list of hazards that the Element must cover, if they pertain to conditions in the City. These hazards are:

- Seismically induced conditions including ground shaking, surface rupture, ground failure, tsunami, and seiche;
- Slope instability leading to mudslides and landslides;
- Subsidence and other geologic hazards;
- Flooding;
Wildland and urban fires; and

Evacuation routes.

State law also permits communities to add safety issues to this list. Additional safety issues that are included in this Element are:

Criminal activities and violence;
Air pollution;
Hazardous materials;
Nuclear hazards from the San Onofre Nuclear Generating Station; and
Ground transportation.

The Safety Element contains three sections: 1) Introduction; 2) Issues, Goals, and Policies; and 3) the Safety Plan. In the Issues, Goals, and Policies section, major issues pertaining to hazardous conditions and safety are identified, and related goals and policies are established.

The goals are overall statements of the City’s desires and consist of broad statements of purpose and direction. The policies serve as guidelines for reducing the risk associated with humans, including criminal activity, as well as natural hazards. The policies also serve to direct and maximize community emergency preparedness. The Plan explains how the goals and policies will be achieved and implemented. Specific action programs for the Safety Element are contained in the General Plan Implementation Program in Appendix A of the General Plan.

The plans and programs described below relate to important issues addressed in Safety Element.

California Environmental Quality Act (CEQA) Guidelines

The California Environmental Quality Act was adopted by the State legislature in response to a public mandate for a thorough environmental analysis of projects that might adversely affect the environment. The provisions of the law, required procedure, and any subsequent analysis are described in the CEQA Statutes and Guidelines. Safety hazards are recognized as environmental impacts under CEQA. Continued implementation of CEQA will ensure that
City officials and the general public have information describing assessment and mitigation of potentially significant safety impacts associated with private and public development projects.

**Seismic Hazards Mapping Act**

Pursuant to the Seismic Hazards Mapping Act, the State Geologist compiles maps identifying seismic hazard zones. Development in seismic hazard areas is subject to policies and criteria established by the State Mining and Geology Board. Additionally, approval of development on a site within a seismic hazard area requires the preparation of a geotechnical report and local agency consideration of the policies and criteria set forth by the State Mining and Geology Board (Public Resources Code Section 2690 et. seq.).

**Alquist-Priolo Earthquake Fault Zoning Act**

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties that contain such zones must inform the public regarding the location of these zones, which are usually one-quarter mile or less in width. Proposed development plans within these earthquake fault zones must be accompanied by a geotechnical report prepared by a qualified geologist describing the likelihood of surface rupture.

**Landslide Hazard Identification Program**

The Landslide Hazard Identification Program requires the State Geologist to prepare maps of landslide hazards within urbanizing areas. According to the Public Resources Code Section 2687 (a), public agencies are encouraged to use these maps for land use planning and for decisions regarding building, grading and development permits.

**Cobey-Alquist Floodplain Management Act**

The Cobey-Alquist Floodplain Management Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. The Act also identifies requirements which jurisdictions must meet in order to receive State financial assistance for flood control.
National Flood Insurance Administration Program (NFIP)

Orange County participates in the National Flood Insurance Program (NFIP), which is administered by the Federal Emergency Management Agency (FEMA). The NFIP program provides federal flood insurance and federally financed loans for property owners in flood prone areas. To qualify for federal flood insurance, the City must identify flood hazard areas and implement a system of protective controls.

County of Orange General Plan Safety Element

The County of Orange General Plan Safety Element contains a comprehensive inventory of hazards impacting persons and property in the unincorporated portion of the City's planning area. Specific subjects include: crime, fire, hazardous materials, flooding and aircraft operations. The Element guides and directs local government decisions regarding safety matters and coordinates regional, state and federal policies and programs. The unincorporated portion of the Rancho Santa Margarita planning area is subject to the County Safety Element.

Hazardous Materials Area Plan

The Orange County Fire Authority, which responds to all hazardous or toxic spill incidents in Rancho Santa Margarita has adopted a Hazardous Materials Area Plan. The Plan guides all emergency response procedures for hazardous materials incidents. All facilities and personnel of the County and affected cities are organized into the Plan to effectively respond to hazardous materials emergencies. Hazardous materials and emergency preparedness are discussed in the Safety Element.

Hazardous Waste Management Plan

The Orange County Hazardous Waste Management Plan was adopted in January 1989. The Plan provides basic overall policy direction to address current and future hazardous waste management issues. All facilities and personnel of the County and affected cities are organized in the Plan to effectively respond to hazardous materials emergencies. Hazardous materials and emergency preparedness are both discussed in the Safety Element.
San Onofre Nuclear Generating Station (SONGS)

The San Onofre Nuclear Generating Station (SONGS) is located near the southern boundary of Orange County. The federal and state governments have created three levels of emergency zones surrounding nuclear facilities:

- Emergency Planning Zone: Planning efforts within this zone include emergency sheltering and evacuation;
- Public Education Zone: Rancho Santa Margarita is located within this zone. Education programs are focused in this zone to ensure that residents are prepared for any problems associated with the facility; and
- Ingestion Pathway Zone: The purpose of this zone is to avoid the accidental ingestion of deposited radioactive materials by humans and livestock. Southern California Edison, who operates SONGS, will provide notification to all affected jurisdictions within 15 minutes of declaration of any emergency. At that point, the City will follow procedures established in the Emergency Preparedness Plan (described below).

City of Rancho Santa Margarita Emergency Preparedness Plan

The City has an Emergency Preparedness Plan in place for the community. This plan complies with the Standardized Emergency Management System (SEMS) established by the State Office of Emergency Services. An integral component of this Element is emergency preparedness planning.

City of Rancho Santa Margarita Codes

The City has adopted the Uniform Building Code, Uniform Mechanical Code, Uniform Fire Code and the National Electrical Code that contain structural requirements for existing and new buildings. The codes are designed to insure structural integrity during seismic and other hazardous events and prevent personal injury, loss of life and substantial property damage. To protect public safety, planned development in Rancho Santa Margarita is subject to these structural codes.

The Safety Element must be consistent with the other General Plan elements and all elements of the General Plan are interrelated to a degree. Certain goals and policies of one element may also address issues that are the primary subjects of other elements. Table S-1 located in the following section identifies related goals and policies.

Relationship to Other General Plan Elements
by General Plan element. The integration of overlapping issues throughout the General Plan elements provides a strong basis for the implementation of plans and programs and achievement of community goals. The Safety Element most closely relates to the Land Use and Circulation Elements.

Policies and plans in the Safety Element are designed to protect existing and planned land uses identified in the Land Use Element from public safety hazards. Potential hazards are identified in the Safety Element, and action programs are established to avoid or mitigate public safety impacts from planned development. Concurrently, the Land Use Element contains policies to ensure that environmental conditions, including hazards, are considered in all land use decisions. The distribution of residential and other sensitive land uses on the Land Use Policy Map is designed to avoid areas where hazardous conditions have been identified.

Evacuation routes that utilize the circulation system in the City of Rancho Santa Margarita are also described in the Safety Element. The provision of viable evacuation routes within the City is inextricably linked to the existing and planned circulation system within the Circulation Element.
Issues, Goals and Policies

Certain natural conditions and human activities in Rancho Santa Margarita create risks to individuals and properties within the community. Excessive risk from such hazards can be reduced or avoided through implementation of the Safety Element.

The goals, policies and plan of the Safety Element address four major issues. These major issues include: 1) reducing risk from natural hazardous conditions; 2) reducing risks from hazards associated with human activities; 3) crime prevention; and 4) preparing for emergency situations. Each issue and the related goals and policies are included in this section of the Element.

Natural Hazards

Due to its geographic location in a seismically active region and the location of floodplains and hillsides within the City, Rancho Santa Margarita is subject to several types of natural hazards such as seismic activity, liquefaction, flooding, wildfires, landslides, and erosion. This risk of exposure can be reduced through appropriate land use planning, development engineering, and building construction practices.

Goal 1: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, wildfires, structural fires, and flooding.

Policy 1.1: Reduce the risk of impacts from geologic and seismic hazards by applying and enforcing development standards and building construction codes.

Policy 1.2: Protect the community from flooding hazards by providing and maintaining flood control facilities and limiting development within the floodplain.

Policy 1.3: Reduce the risk of wildfire hazards by working with the Homeowner Associations, business park associations, and community foundations to maintain fire retardant landscaping and buffer zones in areas of high wildfire risk.

Policy 1.4: Reduce the risk of fire to the community by coordinating with the Orange County Fire Authority.
Policy 1.5: Participate in local, regional, state, and federal programs that educate residents and businesses about how to protect themselves and their property from hazards.

Policy 1.6: Avoid development of areas that are particularly susceptible to erosion and sediment loss.

Human Activity Hazards

Rancho Santa Margarita is subject to many of the same human-related hazardous conditions that are encountered in other communities. Certain human activities such as flying, use of cars and other gasoline powered vehicles, nuclear power production, use of hazardous or toxic materials, and the use of combustibles expose the population of Rancho Santa Margarita to risk. The risk of exposure to these hazards can be reduced to acceptable levels through proper planning and regulation of human activity.

Goal 2: Protect the community from hazards related to air pollution, nuclear power production, hazardous materials and ground transportation.

Policy 2.1: To reduce the risk posed by air pollution, work with responsible federal, state and county agencies to decrease air pollution emissions occurring within the air basin.

Policy 2.2: Coordinate with local, state, and federal agencies to reduce the risks related to nuclear power production.

Policy 2.3: Cooperate with responsible federal, state, and county agencies to minimize the risk to the community from the use and transportation of hazardous materials through the City.

Policy 2.4: Reduce the per capita production of household hazardous waste in Rancho Santa Margarita in concert with the County of Orange plans for reducing hazardous waste.

Policy 2.5: Reduce risks and avoid excessive noise levels associated with transportation activities.

Policy 2.6: Participate in local and regional programs that facilitate the proper disposal of household hazardous waste.
Occasionally, residents, businesses and visitors to Rancho Santa Margarita are exposed to criminal activity. Creating and maintaining a safe environment requires not only traditional policing activities, but also programs that address the source of criminal activity. The risk of exposure to criminal activity can be reduced through proper planning, education methods and regulation of human activity. Additionally, proper design and effective use of the built environment can lead to a reduction in fear and the incidence of crime, improving the quality of life, and helping create a sense of community.

**Goal 3:** Protect citizens and businesses from criminal activity.

**Policy 3.1:** Utilize the services of local, state, and federal law enforcement agencies to reduce the risk of criminal activity.

**Policy 3.2:** Promote after school programs, volunteer programs, and Business and Neighborhood Watch programs to help maintain a safe environment.

**Policy 3.3:** Continue to implement existing programs that promote a peaceful, non-violent problem solving approach for conflict resolution within the community.

**Policy 3.4:** Continue to explore new techniques and approaches to create a community in which the residents feel safe.

**Policy 3.5:** Encourage the development and operation of community and recreational facilities as a pre-emptive strategy to reduce youth related crime.

**Policy 3.6:** Promote public awareness of both the responsiveness of local law enforcement and ways to reduce criminal activity.

**Policy 3.7:** Apply design techniques aimed at reducing criminal activity to new development and redevelopment.

**Policy 3.8:** Ensure that adequate street and property lighting is provided and maintained in order to protect public health and safety.
Emergency Preparedness

Major emergencies occur periodically in all communities. Proper preparation for emergencies is an essential action to minimize the disruption, person injury, and property damage associated with such events. Preventative measures and preparatory responses before an emergency occurs will hasten recovery from these emergencies.

Goal 4: Improve the ability of the City to respond effectively to natural and human-caused emergencies.

Policy 4.1: Support the development of local preparedness plans and multi-jurisdictional cooperation and communication for emergency situations consistent with the Standardized Emergency Management System (SEMS).

Policy 4.2: Educate City staff, residents, and businesses regarding appropriate actions to safeguard life and property during and immediately following emergencies.

Related Goals and Policies

The goals and policies described in the Safety Element are related to and support subjects included within other General Plan elements. In turn, many goals and policies from the other elements directly or indirectly support the goals and policies of the Safety Element. These supporting goals and policies are identified in Table S-1.

Table S-1
Safety Related Goals and Policies by Element

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As in all communities, human activities and natural conditions occur in Rancho Santa Margarita that have an effect on the quality of life of its residents. Providing an environment where businesses and residents can operate and feel safe, as well as being prepared for emergency situations, is essential. The City can minimize hazards and protect public health and private property through proper prevention and emergency preparedness planning.

This section of the Safety Element identifies the City’s approach for reducing potential hazards from natural conditions and human activities. Geologic conditions, seismic activity, flooding, and fires are considered natural hazards. Human activity hazards include air pollution, the use and transport of hazardous materials, ground transportation, and structural fires. The Plan is based on goals and policies identified in the previous section of this Element. The Safety Element Implementation Program contained in Appendix A of the General Plan is an extension of the Safety Plan and contains specific actions that the City will take to protect the welfare of the community.

Natural hazards addressed in the Safety Plan include seismic activity, geologic conditions, flooding, and fires.

Seismic Hazards

The Rancho Santa Margarita planning area is situated in the western part of the Peninsular Ranges province, a region with a characteristic northwest trend to its landforms and to its underlying geologic structures.

Earthquake severity is normally classified according to magnitude (a measure of the amount of energy released when a fault ruptures), and seismic intensity (a qualitative estimate of the damage caused by an earthquake at a given location). Because the amount of destruction generally decreases with increasing distance away from the epicenter (the point at the Earth's surface directly above where the earthquake originated), earthquakes are assigned several intensities. The most commonly used seismic intensity scale, called the Modified Mercalli Intensity (MMI) scale, has 12 levels of damage. The higher the number, the greater the damage.
The largest earthquake likely to occur on a fault or fault segment is termed the maximum credible (MCE) or characteristic earthquake. Depending on the planned use, lifetime, or importance of a facility, a maximum probable earthquake (MPE) is the earthquake most likely to occur in a specified period of time, (such as 30 to 500 years). In general, the longer the time period between earthquakes on a specific fault segment (recurrence interval), the larger the earthquake.

The State of California, under the guidelines of the Alquist-Priolo Earthquake Fault Zoning Act of 1972 classifies faults according to the following criteria:

- **Active:** faults showing proven displacement of the ground surface within about the last 11,000 years; and
- **Potentially Active:** faults showing evidence of movement within the last 1.6 million years (modified to 750,000 years by the U.S. Geological Survey).

No active faults are known to pass through Rancho Santa Margarita. The closest active faults are the Elsinore-Glen Ivy fault (10.1 miles away), the Chino fault (11.1 miles away), and the Newport Inglewood fault (14.4 miles away). The occurrence of surface rupture on these segments would not be expected to produce fault surface rupture within the City.

The two known local faults, Aliso and the Cristianitos, are thought to be inactive. These faults are shown on Figure S-1. An earthquake on either of these two faults would be particularly damaging to residential buildings, particularly those of wood or reinforced masonry construction, and to mobile homes. Other buildings that do not typically perform well in earthquakes are soft-story buildings. These have a story (typically the first floor) that lacks adequate strength or toughness due to too few shear walls. Two types of soft-story buildings are common: 1) buildings with large window openings used for display purposes on the first floor, and 2) buildings housing the garage on the first floor.
Figure S-1
Seismic Hazards

Legend
Earthquake Fault Locations

- Certain Location
- Concealed Location
- Approximate Location
- Queried

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Sources: Orange County Land Base, 2001; Cotton/Bridges/Associates, 2001

December 2002
Geologic Hazards Resulting from Seismic Shaking

Geologic hazards resulting from seismic shaking include liquefaction, seismically induced settlement and slope failure.

Liquefaction is a geologic process that causes various types of ground failure. Three general conditions need to be met for liquefaction to occur: (1) strong ground shaking of relatively long duration; (2) loose, or unconsolidated, recently deposited sediments consisting primarily of silty sand and sand; and (3) water saturated sediments within about 50 feet of the surface. Most of the lowlands in the Santa Margarita area have a high liquefaction potential because shallow ground water, within 50 feet of the ground surface, has been reported historically. Areas of liquefaction in the City are shown on Figure S-2, Geologic Hazards.

Under certain conditions, strong ground shaking can cause the densification of soils, resulting in local or regional settlement of the ground surface. During strong shaking, soil grains become more tightly packed due to the collapse of voids and pore spaces, resulting in a reduction of the thickness of the soil column. This type of ground failure typically occurs in loose granular, cohesionless soils, and can occur in either wet or dry conditions. Unconsolidated young alluvial deposits are especially susceptible to this hazard. Artificial fills may also experience seismically induced settlement. Damage to structures typically occurs as a result of local differential settlements.

Those portions of the planning area that may be susceptible to seismically induced settlement are generally the floodplains and larger drainages that are underlain by late Quaternary alluvial sediments (similar to the liquefaction-susceptible areas). These include areas in Trabuco Canyon, Live Oak Canyon and especially the flatter areas along these drainages. Also included are the areas along Tijeras Canyon. Sites near the base of natural hills (valley margins) may be particularly vulnerable.

Strong ground motions can worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions. Seismically induced landslides can overran structures, people or property, sever utility lines, and block roads, thereby hindering rescue operations after an earthquake. The area east of Rancho Santa Margarita and some steep slopes within the City would be most vulnerable to seismically induced slope failure, due to the steep terrain and the presence of weak sedimentary rock units. Areas on the gentler slopes may also be susceptible where slopes have been
Legend
- Landslide
- Liquefaction
- City Boundary
- Sphere of Influence Boundary
- Future Planned Community Boundary

Sources: Orange County Land Base, 2001; Earth Consultants International, 2001

Figure S-2
Geologic Hazards

City of Rancho Santa Margarita
General Plan

December 2002
A combination of geologic conditions leads to landslide vulnerability. The hilly and mountainous areas within the planning area are underlain by soft sedimentary bedrock. Numerous landslides have been mapped in the eastern half of the Santa Margarita area, these sediments have the potential to fail (by landsliding) during an earthquake. Sections of Trabuco Canyon Road or Live Oak Canyon Road could be blocked by fallen rock debris immediately following an earthquake, or worse, could be destroyed by landsliding. This would hinder rescue and evacuation operations. Earthquake induced landslides could also impact developments adjacent to the mountain front.

Geologic Hazards

Rancho Santa Margarita lies primarily on a long narrow older river terrace called the Plano Trabuco. The land rises and steepens eastward while, across Trabuco Creek to the north and Tijeras Creek to the south, the land becomes more rolling and underlain by less stable geologic materials. Elevations range from about 350 feet above mean sea level in the valleys to about 2,400 feet at the highest ridgeline north of the City. Most of the City sits on competent alluvial materials that are less prone to natural hazards than the perimeter portions of the City. Potential geologic hazards in the planning area include landslides, expansive soils, subsidence and collapsible soils.

The sedimentary bedrock units that underlie the hillside areas appear to be grossly stable in their natural conditions, as remarkably few landslides have been mapped in the planning area. However, an earthquake on a nearby seismic source could trigger landslides. The stability of these slopes can also be negatively impacted by development.

Most of the planning area is underlain by sedimentary units (both bedrock and alluvium) that are composed primarily of granular soils (silty sand, sand, and gravel). Such units are typically in the low to moderately-low range for expansion potential. However, every sedimentary unit in the area contains layers of fine-grained soils that are typically in the moderate to highly expansive range. The
areas most susceptible to expansive soils are located along the western boundary of the City. Potentially expansive layers may be exposed at the surface by erosion or may be uncovered by grading cuts made for developments.

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. Most ground subsidence is man-induced. No regional subsidence as a result of either groundwater pumping or oil extraction has been reported. However, thick alluvial deposits may be susceptible to subsidence should rapid groundwater withdrawal occur beneath these areas in response to population increase. These areas are primarily located in designated open spaces in the City, however, development in the northeastern portion of the City and adjacent to Antonio Parkway may be susceptible to this geologic hazard.

Collapse occurs when saturated, collapsible soils lose cementation, resulting in substantial and rapid settlement under relatively low loads. The alluvial deposits in the valley and canyon floors are susceptible to collapse.

The City will enact programs to reduce geologic hazards to protect public safety. To minimize hazards from earthquakes and other geologic hazards, the most recent state seismic guidelines and guidelines for other geologic hazards will be implemented for structural design. During the review of development proposals involving slopes, grading, unstable soils and other hazardous conditions, surveys of soil and geologic conditions by a state-licensed engineering geologist will be required. Based on the results of the survey, design measures will be incorporated into projects to minimize geologic hazards.

**Flood Hazards**

The unpredictable seasonal range in rainfall that is typical of coastal southern California, coupled with geographic and geologic conditions, makes Orange County extremely vulnerable to flooding during the winter storm season.

Three main north to south draining stream systems drain the planning area. Trabuco Creek and Tijeras Canyon drain the northern and western areas of the City while Dove Canyon drains the southeastern side.
The City participates in the National Flood Insurance Program (NFIP). The last Flood Insurance Study was completed in Rancho Santa Margarita in September 1999. Flood Insurance Rate Maps (FIRMs), prepared by the Federal Emergency Management Agency (FEMA), showing potential flood zones are available for areas within the municipal limits. Due to the recent incorporation date of the City, these maps are labeled as areas of unincorporated Orange County. The FEMA 100-year and 500-year map for the City is shown on Figure S-3. This outlines the area of potential flooding within Rancho Santa Margarita.

As can be seen from Figure S-3, the only major potential flooding problems for the City are located along the Arroyo Trabuco Creek and Tijeras Canyon Creek areas. Along the Trabuco Creek a dense growth of trees and brush are located in the main channel, which may raise flood levels considerably. If flooding were to occur, it would be difficult to predict and plan for because rainfall in the area is extremely variable. Floods that would impact the City would be typically of short duration, with high peak volumes and high velocity. This is due to the arid to semi-arid nature of the area. When a major storm moves in, water collects rapidly and runs off quickly due to the rapid descent of the mountains into Trabuco Creek, Tijeras and Dove Canyon. Consequently, resultant flows are of the flash-flood type, generally having sharp peaks and short durations. Although some severe floods have impacted the area in the past, flooding damage in this area has generally been lower than in other areas of Orange County because of its relatively undeveloped state in the upper watershed areas. No homes or structures are located within the 100-year or 500-year flood zones within the City.

No major dam is located upstream from the planning area. However, several large detention basins and reservoirs are located near the City. The Upper Oso reservoir is located to the northwest of the City and Lake Mission Viejo is located to the southwest. Other, smaller flood control improvements, such as canals, culverts, levees, and retention basins may crack and suffer some structural damage during
an earthquake, especially in areas prone to ground failure. These facilities could pose an inundation hazard if they contain water at the time of the seismic event, or if they are not repaired soon after an earthquake and prior to the next winter storm season.

Seismically induced inundation can also occur if strong ground shaking causes structural damage to aboveground water tanks. Several reservoir sites are within the planning area. Most of these are owned and operated by either the Trabuco Canyon or Santa Margarita Water Districts.

The Orange County Flood Control District (OCFCD) is the agency responsible for the regional drainage facilities while the City controls local facilities. The City has a Drainage Master Plan that addresses the storm drain system that serves the community. Given the highly developed nature of the City, no more planned upgrades are included in the Drainage Master Plan.

The flood hazard areas in Rancho Santa Margarita are within open space lands in the City. These areas remain open space, as outlined in the Land Use Element. The City will monitor the local drainage system and will work with the OCFCD to identify needed improvements for new development projects.

**Fire Hazards**

Rancho Santa Margarita is subject to both wild and urban fires. Weather, topography and vegetation type all affect the intensity of fires. Given the large portion of land that remains as open space including rugged topography with highly flammable native vegetation, wildland fires are a significant risk. Figure S-4 shows the various levels of potential fire risk in the City. Extreme fire severity zones are located in the northwest, west and northeast areas of the City.

Areas posing a significant risk to the City are subject to the *Public Resources Code, Sections 4291-4299*, which require property owners to conduct maintenance to reduce the fire danger. The Orange County Fire Authority (OCFA) has responsibility for wildfire suppression on all private land in Rancho Santa Margarita. Any proposed development plans are reviewed by the OCFA to determine if fuel modification plans or other preventative measures are required. The Planned Communities that are now incorporated in the
Figure S-4
Wildfire Hazard Areas

Legend
- Very High
- High
- Very Low
- None
- City Boundary
- Sphere of Influence Boundary
- Future Planned Community Boundary

Sources: Orange County Land Base, 2001; Cotton/Bridges/Associates, 2001

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City included fuel modification requirements in the Feature and Development Plans. The fire flow rates from the Uniform Fire Code are also implemented by the OCFA and reviewed for any new development.

The City will continue to reduce the potential for dangerous fires by coordinating with the OCFA to implement fire hazard education, fire protection and fuel modification programs. The current Uniform Fire Code will be used to reduce structural fire hazards. In addition, the City will work closely with the local water districts and OCFA to ensure that water pressure is adequate for fire fighting purposes.

Human activity hazards addressed in the Safety Plan include air pollution, nuclear power production, hazardous materials and ground transportation.

**Air Pollution**

As discussed in the Conservation/Open Space Element, Rancho Santa Margarita is located within the South Coast Air Basin, a non-attainment area for federal and state air quality standards for ozone and state standards for particulate matter less than ten microns in diameter (PM10). The City is split between two South Coast Air Quality Management District (SCAQMD) Source Receptor Areas: #19 - Saddleback Valley Air Monitoring Subregion and #21 Capistrano Valley Air Monitoring Subregion. However, no active monitoring station is located in the Capistrano Valley subregion.

Motor vehicles are the major source of regional emissions throughout the air basin and within Rancho Santa Margarita. No major point source emitters, such as heavy industrial uses, are located within the City. The City will work with SCAQMD and the most recent Air Quality Management Plan to improve the regional transportation system and regional air quality.

**Nuclear Power Production**

The San Onofre Nuclear Generating System (SONGS) is located on the Camp Pendleton U.S. Marine Corps Base in San Diego County, approximately five miles south of San Clemente. The SONGS operations are regulated by FEMA and the California Office of Emergency Services (OES). An Interjurisdictional Planning Committee (IPC), comprised of several local jurisdictions, was established to coordinate emergency response plans. The City is located within the SONGS Public Education Zone. Education programs coordinated by the State and Southern California Edison are focused on in this zone to ensure that residents are prepared for
any problems associated with the facility. The City will continue to implement measures related to SONGS in its Emergency Preparedness Plan.

**Hazardous Materials**

Hazardous materials are used in Rancho Santa Margarita for a variety of purposes, including service industries, small businesses, schools and households. Many chemicals used in household cleaning, construction, dry cleaning, film processing, landscaping, and automotive maintenance and repair are considered hazardous. Accidents can occur in the production, use, transport and disposal of hazardous waste.

In order to effectively manage hazardous materials and waste, the City implements applicable portions of both the Orange County Hazardous Materials Area Plan and the Orange County Hazardous Waste Management Plan. Both the federal government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, to submit a business plan to the local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Rancho Santa Margarita is the Orange County Environmental Health Department. These business plans are submitted to the CUPA annually.

The City participates in a Household Hazardous Waste (HHW) collection program set up by the County of Orange in accordance with the California Integrated Solid Waste Management Act of 1989. HHW drop-off facilities are located throughout the county. The City also participates in a recycling program operated under private sector contract.

The City will work to minimize accident and health risk from hazardous materials with the following approaches:

- Cooperate with federal, state, and county agencies to effectively regulate the management of hazardous materials and hazardous waste;

- Cooperate with the County of Orange to implement the applicable portions of the County Hazardous Waste Management Plan and the Hazardous Materials Area Plan;
Safety Element

- Identify roadway transportation routes for conveyance of hazardous materials (the City does not exercise jurisdiction over transportation of freight along railroad right-of-way);

- Implement the emergency response plan for accidents involving hazardous materials; and

- Cooperate with the Certified Unified Program Agency (CUPA) for Rancho Santa Margarita (the Orange County Environmental Health Department) and the Orange County Fire Authority to administer risk management plans for businesses within the City.

Ground Transportation

Rancho Santa Margarita is traversed by a variety of transportation systems including the Foothill Transportation Corridor, Antonio Parkway, Oso Parkway and Santa Margarita Parkway. The Orange County Transportation Authority (OCTA) transit system provides bus service. The preponderance of ground transportation systems is an asset to local economic development but poses several potential hazards including automobile accidents and pedestrian and bicycling accidents. The risk of accidents can be reduced by properly maintaining the transportation infrastructure and correcting deficiencies. The City will work with the Orange County Sheriff’s Department and the California Highway Patrol to monitor the ground transportation system for hazardous conditions. When safety problems are identified, the City will request the appropriate agency (i.e. Caltrans, OCTA or the City Public Works Department) to take corrective measures.

Crime Prevention

Criminal activity in Rancho Santa Margarita is lower than in most parts of Orange County. Protecting citizens and businesses from criminal activity is a priority in Rancho Santa Margarita. Police protection is provided by the Orange County Sheriff’s Department. A Police Services Department is located at City Hall and provides a variety of community policing programs, including Community Oriented Policing and youth programs. The City will ensure that contracted staffing levels correspond to the City population and needs, and will monitor mutual aid agreements between the Orange County Sheriff’s Department and the police departments of surrounding jurisdictions. Crime prevention programs will continue to be implemented through Police Services for both residential and business communities. When property owners present development proposals, the City will encourage the use of defensible space and lighting concepts to deter on-site crime. Crime control techniques can also be built into new development projects.

The City will maintain its emergency preparedness plan. The plan identifies resources available for emergency response and establishes plans for response to emergency situations and disasters including earthquakes, floods, hazardous materials release, nuclear power plant emergency, wildland fire and aircraft accident.

To support the Emergency Preparedness Plan, the City will support a high level of multi-jurisdictional cooperation and communication for emergency planning and response management. Private individuals and organizations will be solicited to enhance local communication and response with cellular phones, ham radios, AM/FM radio and cable television. Effective emergency response also requires vital facilities such as hospitals, fire stations, communication centers and schools to be functional and operational after a disaster. In addition, the City has identified several routes to assist residents leaving the City in the event an evacuation of all or part of the City is required. Emergency response locations and evacuation routes are illustrated on Figure S-5.

Educating residents and businesses about potential disasters and the Emergency Preparedness Plan can increase the effectiveness of response efforts. An educated public will know how to prevent injury and property damage during and after emergency episodes and also know how to find help. The City will work to educate residents and businesses about appropriate actions to safeguard life and property during and after emergencies. Education about emergency preparedness can occur through distribution of brochures, presentations to civic groups and homeowners associations and instruction in local schools.
Figure S-5
Emergency Response Locations and Evacuation Routes

Legend
- City Boundary
- Sphere of Influence Boundary
- Future Planned Community Boundary
- Evacuation Routes

Sources: Orange County Land Base, 2001; Cotton/Bridges/Associates, 2002

Note: Sheriff station is located in Aliso Viejo.