



## 8. SAFETY ELEMENT

The purpose of the Safety Element is to reduce loss of life, injuries, and damage to property resulting from natural and human-caused public safety hazards including flooding, geologic and seismic hazards, fire, traffic hazards and crime. The Safety Element identifies areas where private and public decisions on land use need to be responsive to potentially hazardous conditions. It also serves to inform individuals, firms and public agencies of Santee's policies regarding appropriate levels of public services such as Sheriff's and Fire protection.



### 1.0 Statutory Requirements

The California Planning and Zoning Laws identify a Safety Element as one of the seven mandatory elements in a General Plan. The current Safety Element represents a consolidation of the previous Public Safety and Seismic Safety Elements.

The Safety Element must address public safety issues such as wildland and urban fire, flooding, crime prevention and seismic and geologic hazards. This element must also identify plans and programs for emergency response and must be reviewed by the State Department of Conservation Division of Mines and Geology and the State Office of Emergency Services before adoption.

### 2.0 Accomplishments Since Adoption of the General Plan

Since the adoption of the City's first General Plan in August of 1984, the City has fulfilled many of the goals, and implemented the policies found in the Safety Element. Major accomplishments include:

- ◆ Adopted a Grading Ordinance that addresses hillside grading and provides recommendations and requirements necessary to permit safe development within these areas.
- ◆ Adopted Zoning Ordinance requirements that limit hillside development and require site sensitive grading to reduce impacts.
- ◆ Development of a number of residential subdivisions within geologically sensitive areas ensuring the recommendations of the existing General Plan are followed and the all geotechnical hazards are properly investigated and mitigated.





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- ◆ In the early 1980's, the Santee and Lakeside Fire Departments signed an automatic aid agreement to provide response to the others' geographic area automatically to reduce response times and enhance public safety. This successful effort spearheaded a larger automatic aid agreement for the entire East County region.
- ◆ In 1984, the City Council approved an ordinance requiring automatic fire sprinkler systems in commercial occupancies. The ordinance was revised in the early 90's to include sprinkler systems in residential structures as well.
- ◆ In the late 1980's the City began to install "opticom" devices in traffic signals to give emergency vehicles priority at intersections and improve response times. Today, all City traffic signals are equipped with these devices.
- ◆ In the early 1990's, the Fire Department initiated a unique and extremely successful public education program targeted mostly to school-aged children. The programs capture the audiences' attention by using firefighter clown characters to deliver important fire and life safety messages in an entertaining fashion.
- ◆ In the late 1990's, the City became a participating agency in the County's 800 MHz Regional Communications System, greatly improving inter-agency communications throughout the region during mutual aid and disaster operations.
- ◆ Since medical emergencies constitute nearly 80% of the Fire Department emergency responses, the City initiated a program that upgraded all first responding fire companies to be equipped and staffed with a paramedic.
- ◆ In 1994, the Fire Department developed an program using senior volunteers to assist with fire prevention inspections. The size and scope of the program have been expanded to include report data entry and staffing of informational booths at civic events.
- ◆ The City continuously updates its emergency operations plan and provides ongoing training to maintain compliance with the Statewide Emergency Management System (SEMS), increasing preparedness in the event of a disaster.
- ◆ In June of 2000, the Fire Department moved from the station at Carlton Hills Blvd. to a new facility at the corner of Fanita Parkway and Carlton Oaks Dr. The new facility will enhance public safety by allowing the Department to add a much needed two- person rescue company. The building won an award from the American Public Works Association in 2000.
- ◆ In 2002, the City adopted a public access defibrillation program that allows for placement of automated cardiac defibrillators in public places.
- ◆ Implementation of Community Oriented Policing and Problem Solving (COPPS), by the San Diego County Sheriff's Department, with a staff of 8 Special Purpose Officers, in partnership with the City and its citizens. The Zoning Ordinance was amended in 2001 to include zoning





standards that provide for surveillance, access control, ownership of space and maintenance (a “crime prevention through environmental design” approach).

- ◆ The City has consistently maintained one of the lowest crime rates of any jurisdiction in San Diego County.

### **3.0 Introduction**

Within the City of Santee, growth and development is expected to continue as the City approaches build-out. With planned growth, and the associated public safety considerations, the City has developed a Safety Element to address public safety concerns. The public safety considerations addressed within the Element include flooding, fire hazards, geotechnical and/or seismic hazards, hazardous materials, crime prevention, traffic safety, aircraft safety and disaster preparedness.

This information is utilized in the planning process to guide the location, type and design of future developments within the City to avoid or reduce risks to public safety.

**Relationship to Other Elements** – The intent of the Safety Element is to identify natural and man-caused hazards and to develop policies to reduce the risk associated with such hazards. The Safety Element is most closely related to the Land Use, and to a lesser extent the Housing Element since this information is used to guide the location of the various land uses and direct the location and design of future development.

### **4.0 Existing Conditions**

#### **4.1 Flood Hazards**

Rivers and Creeks - Flooding in Santee could result primarily from four conditions or a combination of them: (1) heavy, prolonged rain; (2) the collapse or cresting of a dam; (3) a degraded watershed or drainage system; (4) a release of water from upstream dams. In this area, one of the most serious watershed management problems arises from wildland fires, which remove thick underbrush and chaparral, stripping the moisture-retaining ground cover from the soil. Runoff from bare slopes increases, and soil erosion takes place.

Santee has five primary waterways: the San Diego River, Forester Creek, Sycamore Creek, and intermittent creeks paralleling Big Rock Road and Fanita Drive shown on Figure 8-1, Public Safety. The Federal Emergency Management Agency (FEMA) mapped the San Diego River and Forester Creek and updated maps as of June 19, 1997 as part of the National Flood Insurance Program.

Within the City there are a total of 1020 acres within the floodplain of the San Diego River, approximately 596 within the floodway and 424 acres within the floodplain fringe. The Forester Creek floodplain is estimated to cover an area of approximately 100 acres. The low flow channel of Sycamore Creek is estimated to cover roughly 42 acres (also shown on Figure 8-1.). The low flow channel of the creek parallel to Big Rock Road covers roughly 5 acres. The portion of the low flow channel of the creek parallel to Fanita Drive that is within Santee covers roughly 2.8 acres.

There are a variety of existing and designated land uses (i.e. residential, commercial, and industrial) located within the floodplain areas of these waterways. Many of these uses would be





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susceptible to flood damage (depending upon their siting and design considerations) in the event of a 100-year flood.

In 1993 the City completed a comprehensive update of the City's Flood Damage Prevention Ordinance to minimize the public and private losses due to flooding. The intent of the ordinance is to reduce the risks to residents and public and private improvements from flooding. The ordinance precludes development in flood-prone floodway areas and requires all new development to be designed to be above the height of the 100-year flood.

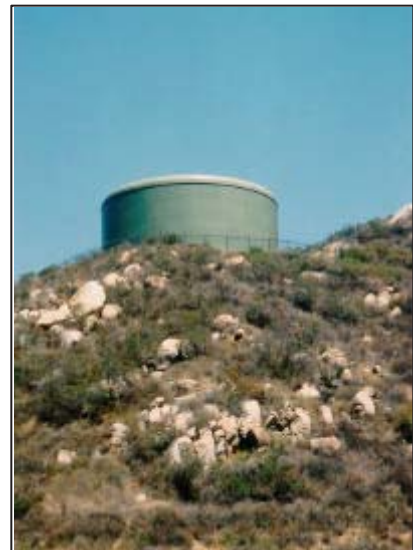


Historical flood records indicate extensive flood damage to surrounding areas in Santee associated with flood events along the San Diego River and to a lesser extent, Forester Creek. Portions of both of these waterways have been improved to reduce flooding. Santee is currently working on the required environmental process, channel design, right-of-way acquisition, and future construction of improvements to Forester Creek between Mission Gorge Road and Prospect Avenue, for a distance of approximately 1.2 miles. The improvements to the creek will increase the

flood-carrying capacity of the creek to contain the 100-year flow. This project would reduce the floodplain of the creek from 100 to approximately 25-30 acres in size. These improvements are expected to be completed by 2004.

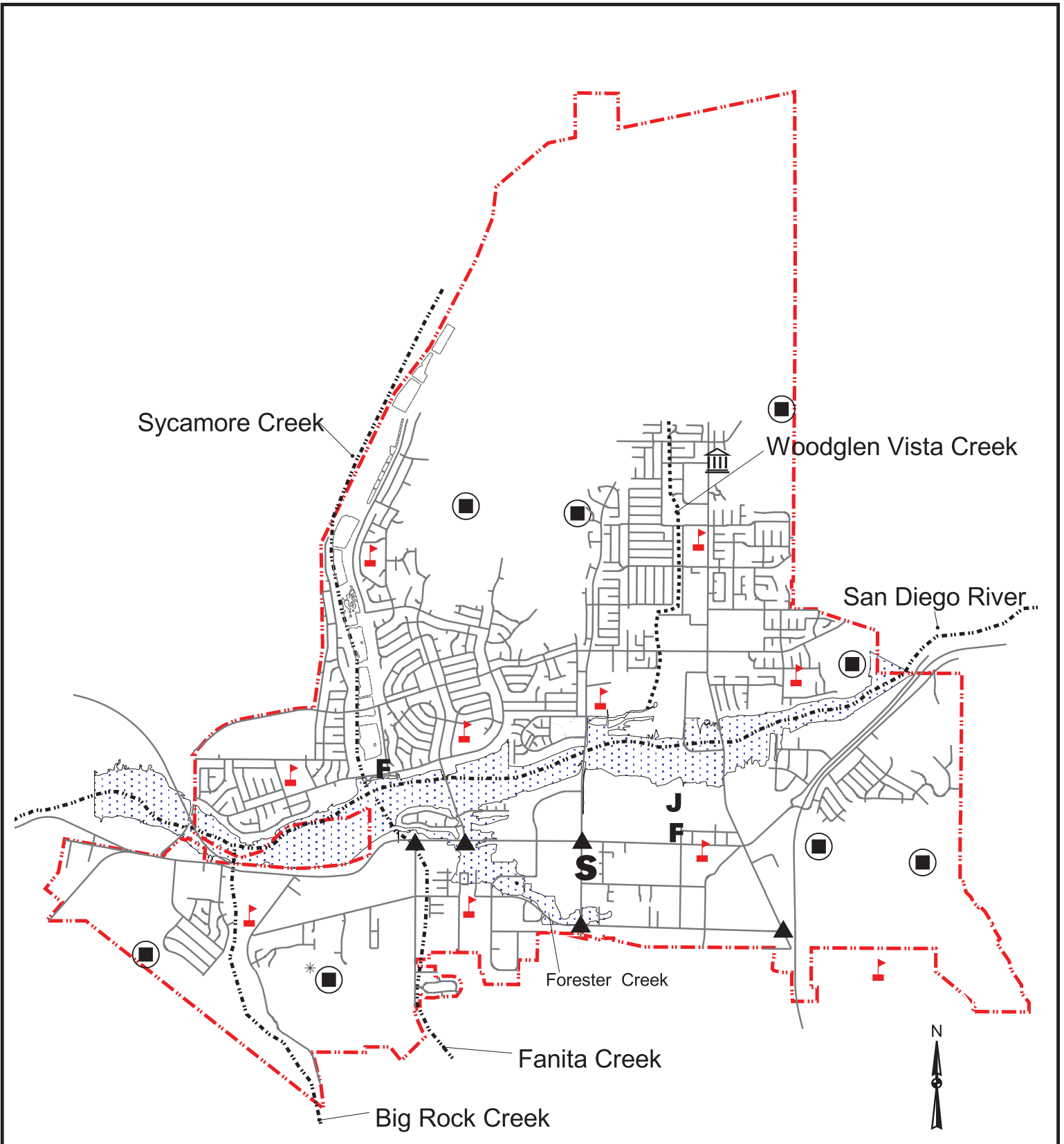
**Water Reservoirs** – The Padre Dam Municipal Water District provides potable water, recycled water, wastewater management services and recreational facilities to an 85 square mile District, including the entire City of Santee. The District's service area population is estimated at 125,000, with an average daily water use of 17 million gallons. The district currently has over 330 miles of potable water mains, 140 miles of wastewater mains and 25 miles of recycled water mains.








The District maintains seven water reservoirs within Santee (Figure 8-1). The Charles C. Price Reservoir, located just east of State Route 67 and Via Madonna, is the largest, with a capacity of 15.5 million gallons. The Northcote reservoir, located at the end of Northcote Road, is the smallest reservoir with a capacity of 0.71 million gallons. The Fanita Reservoir, an aboveground tank located just south of the southern terminus of Organdy Lane, is the only water tank in the City that holds recycled water, storing up to 1.5 million gallons. The District is planning an additional potable-water reservoir near the southern end of Mesa Road, for future development in this area. When the Fanita Ranch is developed, additional water storage facilities will be required to serve this area.



Each of the reservoirs is located on the top of a hill in order to minimize the need for pumps. In the event of the failure and release of water from any of the reservoirs, the land adjacent to and below the ruptured reservoir could be flooded. The reservoirs range from 150 to more than 1,500





- |   |                             |   |                        |
|---|-----------------------------|---|------------------------|
|  | 100 yr Floodplain           | <b>F</b>  | Fire Stations          |
|  | Waterways                   | <b>J</b>  | Los Colinas Jail       |
|  | Water Storage Tanks         | <b>S</b>  | Sheriffs Station       |
|  | Future Water Storage Tank   |  | City Government Office |
|  | High Traffic Accident Areas |  | City Boundary          |

**CITY OF SANTEE  
GENERAL PLAN**



*PUBLIC SAFETY  
FIGURE 8-1*



feet from the nearest homes. Inundation studies for these reservoirs have not been completed by the District.

In addition to the reservoirs within Santee, the City could also be subject to flood damage from failure of water storage tanks located nearby. One is located near Grossmont College, just south of the City limits. This reservoir holds 3.6 million gallons of water for the Padre Dam and Helix Water Districts. The nearby Fletcher Hills Reservoir on Weld Avenue, in El Cajon, has a capacity of 1.5 million gallons.

Dam Failure - The central portion of the City of Santee is located in the San Diego River Valley downstream of three major dams in San Diego County. These include the San Vicente Dam, the El Capitan Dam, and the Chet Harrit Dam (Lake Jennings).

The El Capitan Dam, roughly 10 miles upstream from Santee, was built in 1935 by hydraulic fill methods. The dam is rock-filled, with a clay core. It has a storage capacity of 112,807 acre-feet of water at the spillway elevation of 750 feet above sea level. Due to the failure of a large hydraulically filled dam in Los Angeles in 1971, the State's Department of Water Resources' Division of Safety of Dams requested all owners of hydraulic fill dams to conduct an investigation of the safety of their dams under seismic loading. The study of El Capitan showed that the maximum water surface elevation should be 720 feet, which is now the permanent storage elevation.

The Chet Harrit Dam (Lake Jennings) is an earth-fill dam located approximately 3 miles east of Santee. Lake Jennings, which is retained by the dam, has approximately 10,700 acre-feet of capacity. The dam was built in 1962 by modern methods to resist seismic damage.

The San Vicente Dam is a concrete gravity structure located approximately 3-½ miles northeast of Santee. This dam was constructed in 1943 and has a capacity of 90,230 acre-feet of water. Studies conducted in 1981 found the dam was capable of resisting seismic damage under the regional seismic regime. The San Diego County Water Authority is proposing to raise San Vicente Dam by 54 feet to provide room to store another 52,100 acre-feet of water as part of the Emergency Water Storage Project. Modeling done as part of the project's Environmental Impact Report estimated that the downstream dam break flood zone would not change significantly with the expanded reservoir. The project may actually reduce the risk of dam failure as a result of the new dam structure, which will be attached to the downstream face of the existing dam.

Maps prepared in the 1970s showing areas of inundation for the three dams located upstream of the City of Santee have been reproduced on Figure 8-2, Dam Break Inundation Areas. The inundation maps for the El Capitan Dam and the San Vicente Dam were prepared in 1974 for the City of San Diego. The inundation map for the Chet Harrit Dam was prepared in approximately 1975 for the Helix Water District. Based on current knowledge, no hazardous conditions exist at any of the structures. The safety of these dams is reviewed annually by the California Department of Water Resources, Division of Dam Safety. In addition, the County of San Diego Office of Disaster Preparedness has prepared a report entitled "General Dam Evacuation Plan for San Diego County".

#### **4.2 Soil and Geologic Conditions**

The City of Santee lies near the junction of a relatively narrow coastal plain and the Peninsular Mountain Ranges of southwestern California and Baja California. The coastal plain is made up of a series of marine terraces, which are deeply incised by canyons and tributaries, including the channel of the San Diego River, which bisects the City. Much of Santee is located within the





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San Diego River Valley; however, the northern part of the City, much of which is undeveloped, is located on the highest of these old marine terraces. In the southeastern part of the City, the marine terrace and valley province ends abruptly in the foothills of the Peninsular Ranges.

The geologic stratigraphy of Santee consists of several surface soil types and three geologic formations as shown on Figure 8-3, Geotechnical / Seismic Hazards Map. The surficial soil deposits consist of undocumented fill, previously placed fill, topsoil, colluvium, alluvium/debris flows, landslide deposits, and terrace deposits. Geologic formations include the Stadium Conglomerate and Friars Formation, and granitic rock associated with the Peninsular Ranges.

Undocumented Fill - In undeveloped and developed areas of the City of Santee, fill soils presumed to be undocumented have been mapped in numerous geotechnical reports. An example of a larger undocumented fill deposit is located in an undeveloped area north of the northern terminus of Strathmore Drive. These types of deposits typically contain a wide range of soil types including silt, sand, clay, and rock derived from the local geologic formations.

Undocumented fills typically are poorly compacted and often are underlain by potentially compressible topsoil or alluvium. Consequently, where these deposits are located in areas of proposed development they require special evaluation and recommendations.

Previously Placed Fill - The majority of the central and southern portions of the City of Santee are developed. The fill materials placed during development of these areas generally consist of silt and clayey sands and sandy clays with gravel and cobble mixtures.

Prior to grading or constructing additional improvements in previously graded areas, specific geotechnical evaluations or update reports should be performed to address the potential impacts to existing or proposed improvements.

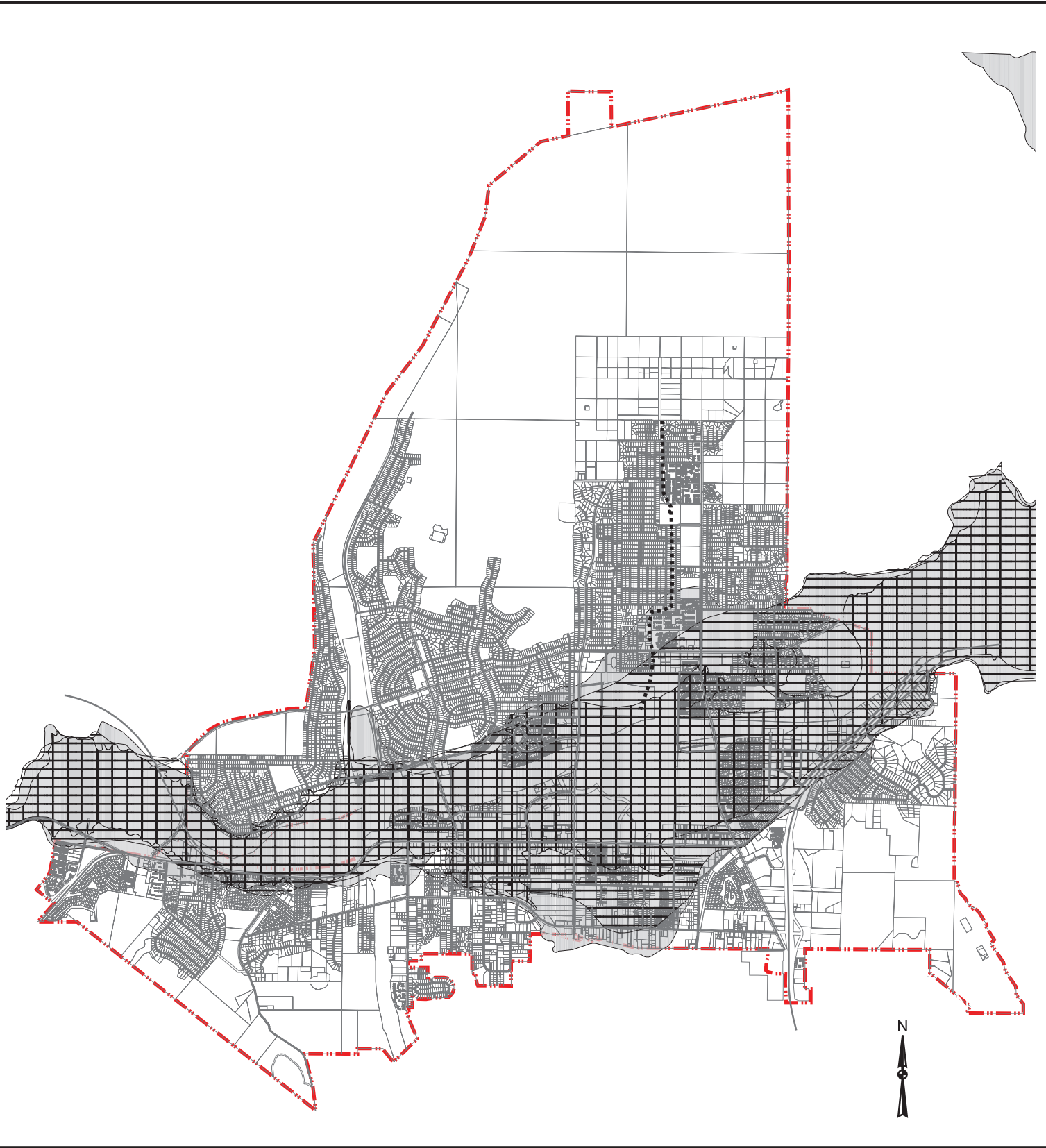
Topsoil - In the undeveloped areas, topsoils blanket the majority of the formational units and range in thickness from approximately 1 to 3 feet. The topsoils are generally characterized as silt/clayey, fine to medium sands and sandy clays. Topsoil deposits typically are considered compressible in their natural state, and ordinarily require remedial grading in areas planned to receive structural fill and/or settlement-sensitive structures. The clayey topsoils characteristically have a medium to high expansion potential, and when present at the ground surface, commonly require specialized foundations to mitigate their impacts.

Colluvium - Colluvial soils are deep deposits of soils that have accumulated near the base of slopes through erosion of upslope materials and soil-creep processes. Colluvial deposits are encountered in the gentle, low-lying, slope areas near alluvial drainages primarily overlying the Friars Formation; however, they also occur in areas underlain by Stadium Conglomerate and granitic rocks. These deposits generally possess medium to high expansion potential, are poorly consolidated, and often require remedial grading in areas of planned development.

Alluvium/Debris Flows - These deposits consist of relatively loose/soft, silt/clayey sands and sandy clays, with varying amounts of gravel and cobble derived from the bedrock units.

Alluvial deposits typically occur in the drainage areas, such as the San Diego River channel, the valley bottoms, and lower portions of the valley slopes. The San Diego River alluvium is relatively deep and, in the near surface, typically consists of clean, medium-grained sands that are locally mined as a source of concrete sand. It appears that many of the debris flow deposits originated from higher elevations of the northern portion of the City along steep slopes within the Stadium Conglomerate, and followed pre-existing alluvial channels.





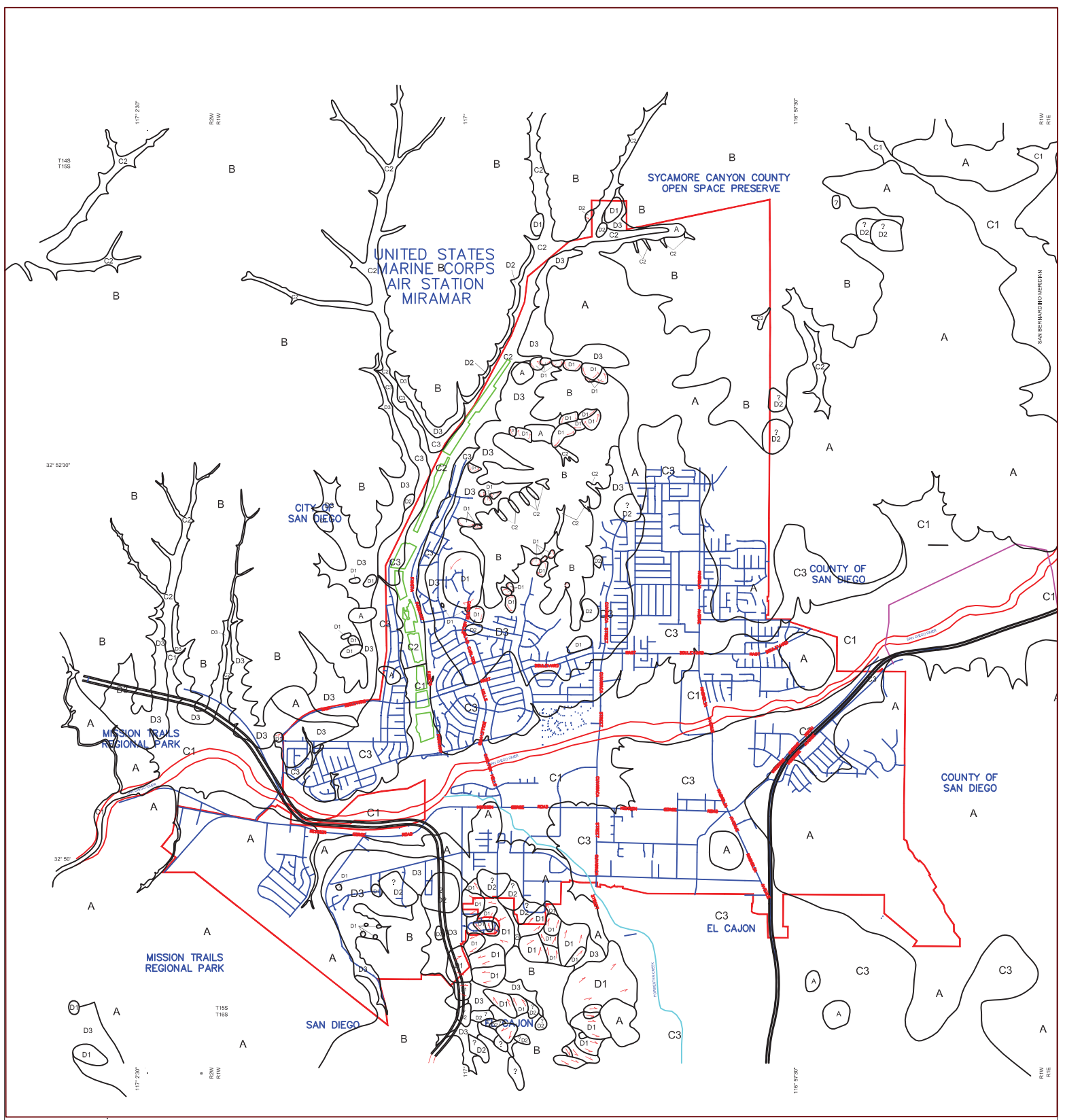
-  Lake Jennings Reservoir Inundation Area
-  El Capitan Reservoir Inundation Area
-  San Vicente Reservoir Inundation Area

**CITY OF SANTEE  
GENERAL PLAN**



*DAM BREAK INUNDATION AREAS*  
**FIGURE 8-2**





.....APPROX. LOCATION OF GEOLOGIC CONTACT

↑↑.....APPROX. DIRECTION OF LANDSLIDE

?.....POSSIBLE LANDSLIDE

.....CITY OF SANTEE LIMITS

Legend	Soil Type	Location	Relative Landslide Susceptibility	Liquefaction Hazard	Expansion Condition
A	Granitic Rock	Hard Rock Outcrops and Discontinuity (Gunitics, Northern Slopes (Fainia Ranch), Central Area (Ramagate Way), Southwestern Area (Rancho Fainia Drive, Cowleg Mountain))	Low Susceptible	Nominal	Very Low
B	Stadium Conglomerate	Northwestern and Northern Slopes (Fainia Ranch), Southern Undeveloped Area	Marginally Susceptible (Generally Susceptible Debris To Flow)	Nominal	Low
C1	Alluvium	Main Drainage Channels, Possible Shallow Groundwater, San Diego River	Marginally Susceptible	Moderate to High	Variable
C2	Alluvium Debris Flow	Secondary Drainage and Tributary Channels, Fluctuating Groundwater	Variable	Nominal to Low	Moderate
C3	Terrace Deposits/Older Alluvium	Gentle Slopes Western Area, Flanks of the San Diego River Valley (Carlton Oaks Drive), Central Area (Woodpark Drive)	Generally To Marginally susceptible (Where Underlain by Friars Formation)	Low to Moderate	Variable
D1	Landslide Confirmed	Sloping Southern Area (Route 125 and Fainia Drive, Fainia Ranch, Carlton Hills)	Moderately Susceptible	Nominal	Moderate to High
D2	Landslide Possible	Various Areas Throughout Friars Formation	Moderately Susceptible	Nominal	Moderate to High
D3	Friars Formation	Northern Slopes (Cuyamaca Street, Lake Canyon Road, Fainia Ranch) and Southern Slopes (Mesa Heights Road, Route 125)	Moderately Susceptible	Nominal	Moderate to High
---	Unmapped Surface Deposits: Undeveloped Fill - Topsoil, Coliseum	Undeveloped Areas	Variable	Variable	Variable
---	Unmapped Surface Deposits: Previously Placed Fill	Developed Areas	Variable	Variable	Variable

CITY OF SANTEE  
GENERAL PLAN  
GEOTECHNICAL/SEISMIC HAZARD MAP  
FIGURE 8-3



The alluvial and debris flow deposits are often poorly consolidated and compressible, and typically require remedial grading or special design considerations. Where development is planned in main drainage channels, such as the San Diego River floodplain, soil improvement techniques and structural reinforcement to remediate the effects of potential liquefaction may be necessary.

Landslide Deposits - Numerous ancient landslides and several possible landslide features exist within the City. The presence of the inferred features on Figure 8-3 are based on topographic evaluation during field reconnaissance, interpretation of aerial photographs and topographic maps, and reports by the California Geological Survey.

Nearly all of the landslides encountered at the northern, undeveloped portion of the City occur along relatively gentle slopes within the Friars Formation and below an elevation of approximately 590 feet above Mean Sea Level (MSL). On the southern portion of the City, landslides occur approximately between elevations of 400 to 600 feet above MSL. Landslide areas are characterized by bulging, hummock topography, as well as deflected drainages. Some landslide areas express a more subdued topography suggestive of older landslide deposits.

In general, new developments should be planned to avoid or mitigate ancient landslide deposits. Some landslides will require complete removal, while other landslides will only require partial removals to compact the compressible portions of the deposits.

Terrace Deposits/Older Alluvium - Terrace deposits/older alluvium are found within a limited area between the alluvial deposits and either the Friars Formation or granitic rock. These deposits are relatively limited in extent and consist of locally cemented gravely sands and/or clayey gravel/cobble conglomerate.

Stadium Conglomerate - The Stadium Conglomerate occurs throughout the southwestern and northern parts of the City underlying the previously discussed high terrace and overlying both the granitic rocks and the Friars Formation. This deposit generally consists of dense sandy to clayey, gravel and cobble conglomerate with interbedded silt sands.

Landslides occurring entirely within the Stadium Conglomerate are uncommon; however, this unit is often involved in sliding where it overlies the Friars Formation. Debris flows or mudflows are relatively common and are discussed in more detail under Geologic Hazards.

The Stadium Conglomerate forms characteristic resistant dissected ridges within the upper elevations of the City. Localized, steeply eroded scars occur within this formation where debris flows originated at the head of tributary canyons.

Moderately heavy to heavy excavation effort should be anticipated during grading within the Stadium Conglomerate due to randomly occurring highly cemented zones. Cut or fill slopes composed of the Stadium Conglomerate generally possess good slope stability.

Friars Formation - Friars Formation deposits are found overlying the granitic rocks in the southern and north-central parts of the City. This formation is exposed between Cuyamaca Street and the eastern foot of Cowles Mountain in the southwestern portion of the City, and throughout the northern part of the City, with the exception of the northeastern area of the Fanita Ranch.

Numerous large, ancient landslides occur within the Friars Formation. Soils derived from the Friars Formation typically possess a medium to high expansion potential and low shear strength. Where exposed in cut slopes, these soils can be prone to surficial instability, and often require





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stabilization measures. Bedding-plane shears are relatively common within the Friars Formation and are significant in that they represent inherent planes of weakness within the formation. During development, where the shears are anticipated to "daylight" in cut slopes, stabilization measures such as drained stability fills or buttresses are necessary.

Granitic Rock - The high marine terrace which forms the surface of the northern parts of the City above Carlton Hills is underlain by Friars Formation and Stadium Conglomerate. Both formations overlie granite rocks. The less weathered, more resistant rock has been utilized in the past as quarry stone and can be observed as large rounded boulders on the hills east of Gillespie Field, near Carlton Oaks Golf Course, on Cowles Mountain and in the eastern part of the City.

### 4.3 Geologic Hazards

Ancient Landslides - A landslide is defined as any mass movement of earth occurring below the limits of the soil mantle, caused by shear failure along one or several surfaces. Landslides occur throughout the area underlain by the Friars Formation. The approximate locations of known or suspected landslides are shown on the Geotechnical/Seismic Hazard Map, Figure 8-3. The largest of the ancient landslides are typically 1,000 to 1,500 feet in width and length (as in Carlton Hills) and extend to depths of 20 to 100 feet below the ground surface. Landslide complexes or clusters of more than one individual slide are also common in the Fanita Ranch area.

Reactivated ancient landslides have been responsible for either partial or complete loss of 20 to 30 homes in the Santee area. The reactivation of ancient landslides, and the creation of new landslides, has been most commonly caused by grading activities or a rise in groundwater level in a slide area.

Debris Flow Deposits - A debris flow is a rapid downslope movement of saturated soil and near surface rock debris. The locations of some of the larger flows identified are within city limits shown on Figure 8-3.

The debris flows or mudflows are initiated near the crests of very steep ridges underlain by Stadium Conglomerate and probably occur as a result of high intensity rainfall. As the near surface soils become saturated, the soils lose strength and fail relatively rapidly to form a river of mud and rock with considerable destructive power. While the cause of debris flows are generally well understood, specific details concerning these events make them difficult to predict. High rainfall, loss of vegetation cover through fire or other causes, and the steepness of the slope appear to be the main causative factors.

Ground Water and Seepage - Groundwater and seepage conditions are significant factors in assessing engineering and geologic hazards. Groundwater is typically found in the deep alluvial drainage areas such as the San Diego River channel, but may also be found in shallower drainages as a result of storm water infiltration. Seepage is typically the result of a ground water table or perched water, either seasonal or permanent, being exposed at the ground surface. Ground water and seepage are major contributing factors to landslides in San Diego County, especially in the reactivation of old landslides.

Seismic Hazards - Seismic hazards are threats to life and property caused by earthquake-induced ground shaking. While there are no active or potentially active faults known to occur within or adjacent to the City, Santee is similar to other areas in California in that it is subject to periodic seismic shaking due to earthquakes along remote or regional active faults. An active





fault is defined by the California Geological Survey as a fault showing evidence for activity within the last 11,000 years.

The Rose Canyon Fault Zone, located approximately 10 miles west of the City of Santee, is the closest known active fault. Earthquakes that might occur on the Rose Canyon Fault Zone or other faults within the southern California and northern Baja California area are potential generators of significant ground motion in the City. The Rose Canyon Fault Zone is the dominant source of potential ground motion in the city. Seismic parameters for the Rose Canyon Fault Zone include an estimated maximum earthquake magnitude of 6.9.

The seismic risk within the City is not considered significantly greater than that of the surrounding municipalities and the San Diego County area in general. Since no Alquist-Priolo Earthquake Fault Zones exist within the City of Santee, there are no restrictions on development related to the Alquist-Priolo requirements.

Soil Liquefaction - Within the City of Santee, the soil deposits that may be susceptible to liquefaction are the alluvial soils found in the San Diego River and its deeper tributary channels. The general extent of the liquefaction-susceptible materials is shown on Figure 8-3. Although all major deposits of alluvial soils have been shown on Figure 8-3 as being susceptible to liquefaction, some areas may have a water table sufficiently deep or may have particular soil conditions that may result in a very low potential for liquefaction. In general, for deposits with a water table below a depth of 50 feet, a seismic event would have to be especially strong for liquefaction to occur. Therefore, these deeper deposits will have a low potential for liquefaction as a result of the maximum expected seismic events.

Liquefaction-related distress could range from small, localized areas, to liquefaction covering a large area, resulting in lateral movement of the near-surface soils and heavy damage to any affected structures. The potential risk to a structure should be evaluated whenever development is proposed in a liquefaction susceptible area.

Seismically Induced Settlement - Seismically induced settlement is very closely related to liquefaction in that loose sands and silts below the water table may tend to settle as the result of ground shaking. If the soil is loose, the settlement can be quite large, as much as 20 percent of the affected thickness of the deposit. The soils most susceptible to seismically induced settlement are the loose alluvial soils of the San Diego River and its tributaries. Site-specific studies should be performed in these areas to evaluate the effect of anticipated maximum seismic events.

Seismically Induced Landslides and Rock Falls - Seismically induced landslides and rock falls are common in areas of high seismicity near the earthquake source. Since Santee is located far from any major active faults, the potential for landslides caused by earthquakes is considered low.

#### **4.4 Fire Hazards**

Santee's location in Southern California, surrounded by significant vacant land, makes it a medium fire hazard area. The prevalence of brush-covered hillsides, many of which are not easily accessible, add to the City's fire hazards. The most common type of fire is a "common combustible" fire, which starts with common materials such as wood, cloth, furniture, brush, etc. Roughly 80 percent of the fires in Santee are in single-family residences.

A significant fire, one that burns a minimum of 500 acres and requires the heavy use of mutual aid resources, occurs in Santee on a periodic basis. The Fanita Ranch and Rattlesnake Mountain areas,





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both of which represent inaccessible, elevated, brush-covered hillsides, have a higher than average proportion of the fires in Santee.

Fire and Life Safety Services and Regulations - The Santee Fire Department provides the community with fire and life safety education, inspection and prevention services, code enforcement, and by preparing for, responding to, resolving and recovering from emergencies. The department is also the City's lead for emergency preparedness, management, and response to earthquakes, floods, explosion, fires, hazardous materials, rescue and medical problems in the City.

The Fire Department provides fire protection and paramedic services to the City, as well as roughly two square miles adjacent to Santee in the Pepper Drive area of the County, under County Service Area 115-contract agreement. The Insurance Services Office (ISO) last surveyed the City in 1997 and the City received a Class 2 rating based upon the ISO rating system of 1 through 10 (with the highest rating being 1 and the 10 the lowest). Santee maintains a minimum daily staffing of 16 emergency response personnel including the "on-call" Duty Chief.



The City currently has two fire stations, one at 8950 Cottonwood Avenue and another at 9130 Carlton Oaks Drive. The Department's response times vary within the City, with the current goal being to provide an average maximum initial response time of no more than six minutes, with an average maximum response time of no more than ten minutes for supporting paramedic transport units 90% of the time. Response time is defined as the time when the units receive notification to their arrival at the scene. To maintain adequate response times, it is anticipated that another fire station will be needed when the currently vacant Fanita Ranch area develops.

The City has a signed automatic aid agreement on first alarm or greater with all surrounding communities. The City is also part of both the San Diego County and State of California Master Mutual Aid Agreements, and maintains a separate agreement with the California Department of Forestry and U.S. Forest Service.

Paramedic Services - Paramedic advanced life support services are currently provided with first responding fire companies and paramedic transport ambulances. The paramedic ambulances are staffed with Firefighter Paramedics and operated in partnership with the Lakeside Fire Protection District under the terms of a contract with County Service Area 69. All firefighters are required to maintain a minimum of EMT-D State Medical License. All Firefighter Paramedics maintain a State EMT-P license and San Diego County accreditation.



Public Education and Awareness - The City's Fire Department also operates many public awareness programs to help address potential safety issues for City residents. These include the Smoke Detector Program in which Fire Department personnel responding to emergencies check smoke detectors within the home, or if no detectors exist, install one at no charge to the resident. The Department also maintains information about fire prevention on





the City’s website and distributes brochures on how to be prepared for wildfire. They also provide an educational program for kids, using clown firefighters to spread fire safety ideas at schools and city functions and also participated in “Every 15 Minutes”, the national program to make teens aware of the dangers of drinking and driving. The Department also organizes free classes for Cardio-Pulmonary Resuscitation (CPR) Training and maintains a visible presence at many community events providing information on department programs and safety issues.

Senior Volunteers - In 1996, the City Council approved the Fire and Life Safety Department’s Retired Senior Volunteers in Prevention (RSVP) Program. The RSVP’s help Santee meet its fire and life safety goals and maintain its relatively low annual fire loss by providing prevention inspections, conducting traffic control at major fires, staff support, as well as providing meals and drinks to firefighters on the lines.

Fire Regulations - The Fire Department also administers a weed abatement ordinance to reduce the risk of structural damage from wildfires. In the spring, the Fire Department inspects the entire City and notifies property owners to clear a defensible space around structures, and to clear undeveloped lots of weeds. If owners do not voluntarily clear the property, the City can direct the work to be done via a private contractor at owner’s expense.

All new construction in the City requires the installation of fire sprinklers, which further reduces potential for fire loss. The City requires a minimum pressure flow of water for fire protection purposes, based on the type of structure. While there are currently no fire-fighting water flow pressure problems in the City, much of the future development may occur on the tops or sides of hills in the northern part of the City where water pressures are lower.

To address fire and life safety issues on new development, the City’s Fire Marshal reviews all proposed residential, commercial and industrial projects through the City’s Development Review process. In this way, it is possible to ensure that adequate fire hydrant locations, water flow pressures, access for emergency vehicles, and other requirements are met.

#### **4.5 Crime Hazards**

Crime Hazards - Police protection for Santee residents is provided by the County Sheriff’s Department, which operates out of the Santee Substation on Cuyamaca Street, and a recently opened storefront facility in the Santee Trolley Square retail center at the northwest corner of Mission Gorge Road and Cuyamaca Street. The ratio of officers to population in Santee is 1.42: 12,000, which is higher than the County average. Santee also has quicker response times than the County average. The average priority call response time for general law enforcement within the City is 8.2 minutes and the average for traffic law enforcement is 7.5 minutes. The City has consistently had one of the lowest crime rates in the County.



Thefts and burglaries are the largest crime problem in Santee, although Santee’s crime rate is well below the average for the County as a whole. In general, higher density residential areas tend to have more property-related crimes than do single-family areas, with businesses being the main target for burglaries.

The Sheriff’s Department administers a Neighborhood Watch Program in the City, aimed at reducing the number of burglaries. Neighborhood Watch is a program involving the joint efforts of the Sheriff’s Department and the community designed to enhance neighborhood security. The





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Sheriffs also administer a similar program called Kids Watch, which is oriented towards children and teaches them to watch their neighborhood and how to contact law enforcement when needed.

The Sheriffs Department utilizes a Community Oriented Policing and Problem Solving (COPPS) approach to crime prevention. COPPS is an effective community policing that has a positive impact on reducing crime, helping to reduce fear of crime and enhancing the quality of life in the community by combining the efforts and resources of the police, local government and community members.

Crime Prevention Through Environmental Design - One of the proactive strategies used by the Department to address thefts and other crimes in the community is the Crime Prevention Through Environmental Design (CEPTD) program. This program emphasizes the application of preventative measures in new construction as well as existing buildings or locations.

CPTED emphasizes understanding and changing the physical environment of a building or neighborhood, using four primary concepts to reduce potential incidents of crime - Natural Surveillance, Territoriality, Access Control, and Maintenance. Site design, landscaping and lighting are major components of the four concepts. Decisions made by planners, designers and law enforcement officials can influence resident and business conditions and behavior.

The Sheriff's Department COPPS and Crime Prevention Units review all new development proposals as part of the City Development Review Committee to incorporate safety recommendations and CPTED principles into the design of new developments. As an example, the City is promoting and the establishment of video surveillance cameras in large retail parking lots to reduce the incidence of vehicle thefts.

Graffiti - The Santee Sheriff's station is the only sheriff's command where deputies are assigned to investigate graffiti as a major function of their duties on a regular basis. The City's graffiti investigators enjoy a 100% conviction rate on graffiti cases submitted to the District Attorney's Office. General acts of graffiti have been displaced to neighboring communities due to the investigative efforts of Santee deputies and the lower priority placed on this activity by neighboring law enforcement agencies.

The City also funds four School Resource Officer (SRO) positions. These officers are assigned to the Santee Elementary School District and the Santana and West Hills High Schools. The officers are an educational resource, provide both intervention and follow-up services. They act as an on-campus resource for school students to both provide a law enforcement liaison as well as to ensure a safe environment for learning.

Las Colinas Detention Facility - The County of San Diego operates the Las Colinas Detention Facility, a women-only facility with an inmate cap of 500 persons. The facility is located at 9000 Cottonwood Avenue. More than 12,000 bookings every year of female prisoners are performed at Las Colinas for regional law enforcement agencies.

The County is evaluating possible alternative locations and designs for the facility including combining the jail with a new Sheriff's substation as a comprehensive public safety facility at the site of the existing Edgemoor Geriatric Hospital on Magnolia Avenue. The City supports reconstruction of the jail into a more modern, enclosed facility, which would be more compatible with the surrounding community.

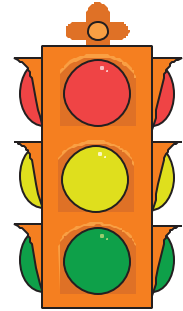




#### 4.6 Traffic Hazards

There are roughly 108 miles of roads in Santee. Most streets have been well maintained and do not present significant driving hazards. The main cause of traffic accidents appears to be correlated to uncontrolled turning movements onto high volume streets. Most collisions occur on the major streets in or near intersections where traffic is heaviest and turning movements are frequent, such as the intersection of Mission Gorge Road at Cuyamaca Street. This intersection is the focal point of the Town Center area and it also serves as the terminus of the San Diego Trolley East Line.

For streets as a whole, Mission Gorge Road has highest accident rate due to the amount of traffic this facility handles per day. This east-west roadway serves primarily commercial and business establishments. With these types of land uses, an increase in conflicting traffic movements may contribute to potential vehicle collisions on this street. Currently there are over 44,000 vehicles per day on portions Mission Gorge Road and 23,800 vehicles per day on Cuyamaca Street. In the year 2020, up to a maximum of 70,000 vehicles per day are expected to use Mission Gorge Road between SR125 and Carlton Hills Blvd, and up to 31,000 vehicles per day will use Cuyamaca Street.



The City recently installed Liquid Electronic Display (LED) traffic signal lights throughout the city. These lights use less energy and are more visible. In the future, major intersections will have battery back-up power so that in the event of a power outage these key intersections will continue to operate smoothly, reducing the potential for traffic accidents.

#### 4.7 Airport Hazards

The City of Santee is situated between two aircraft operation areas: Marine Corps Air Station Miramar to the northwest and Gillespie Field to the immediate south. The San Diego County Regional Airport Authority is responsible for overseeing operation of the regions airports. As such, it is responsible for preparing comprehensive land use plans for the area surrounding each airport within its jurisdiction, based on aircraft-produced noise impacts and aircraft-produced accident potential considerations.

Marine Corps Air Station Miramar – The San Diego Association of Government's Comprehensive Land Use Plan for NAS Miramar and the February 1996 Environmental Impact Statement for the Realignment of NAS Miramar, does not include Santee within any of the airfields Accident Potential Zones, which are areas with highest accident potential.

Gillespie Field - Gillespie Field was established in 1942 and is the oldest and largest of the county's general aviation airports. It is used primarily for recreational and business purposes, and includes seven runways, a tower, terminal, helicopter landing pad, and airport related businesses. The aircraft weight limits will continue to limit the airport to general aviation and there are no plans for it to become a commercial airport. Gillespie Field's current certification allows corporate jets with wingspans up to 79 feet. The airport currently has roughly 200,000 operations (take-off and landings) per year. This has dropped from the high of over 300,000 in 1979, and is expected to rise to







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maximum of 250,000 to 300,000 operations in 2010.

The Gillespie Field Comprehensive Land Use Plan, (CLUP) has a designated "Airport Influence Area" which is the area that may be subject to either noise hazards or to height restrictions required to prevent obstructions to navigable airspace.

The "Clear Zones" are areas of significant risk resulting from aircraft takeoff and landing patterns. While the Clear Zones for Gillespie Field fall mainly within airport boundaries, there are several County-owned properties north of the airport on Prospect Avenue that are designated as airport clear zones. These properties are designated as Park / Open Space to reflect their airport function.

Airport noise compatibility issues are discussed in detail in the Noise Element.

### 4.8 Disaster Preparedness

The role of government in a disaster – whether it's city, county, state or federal – is the preservation of life and property. The City has adopted an Emergency Operations Plan, which addresses the planned response to extraordinary emergency situations associated with natural and man-caused disasters. The plan describes the overall responsibilities of government entities, as well as the Santee Emergency Management Organization for protecting life and property in the City.

Santee is also a member of the Unified San Diego County Emergency Services Organization (ESO) which is comprised of the 18 incorporated cities within the county and the County of San Diego. The ESO provides coordination of disaster response and recovery activities. The Organization operates under a Joint Powers Agreement that provides for cooperation and coordination between member jurisdictions.

The Office of Disaster Preparedness (ODP) is the liaison between the incorporated cities, the State Office of Emergency Services (OES) and the Federal Emergency Management Agency (FEMA), as well as non-governmental agencies such as the American Red Cross. The Office of Disaster Preparedness ensures the preparation and execution of emergency plans in the event of a major emergency or disaster within the San Diego County area. It is important to note that ODP is not a response agency, but rather serves to ensure coordination of efforts among County departments, cities, special districts and other agencies within the county, as well with the state federal agencies.

Each year the City conducts drills and training simulations for the emergency operations center to assure improved operation in the event of an actual disaster.



### 4.9 Hazardous Materials

Hazardous material incident management is the responsibility of the City's Fire Department. The City also belongs to the San Diego County Joint Powers Authority Hazardous Materials Response Team, which responds to assist with major incidents.

The City also falls under the jurisdiction of the San Diego County Hazardous Waste Management Plan which is the primary planning document providing overall policy on hazardous waste management in the County. The plan describes how San Diego County's

hazardous waste management in the County.





hazardous waste stream can be safely managed, and serves as the guide for local decisions regarding the management of hazardous wastes.

The Hazardous Material Division of the County of San Diego's Department of Environmental Health protects the health and safety of the public and the environment by assuring that hazardous materials and bio-medical waste are properly handled and stored. The Hazardous Materials Division assists regulated businesses in the City in developing their business plans, as well as developing an area plan for hazardous material emergency response coordination in the City and County.

The City also provides residential curbside pick-up of waste automotive oil and filters in addition to participating in a Household Hazardous Waste Program, which allows residents to safely dispose of any unused or leftover portions of products containing toxic chemicals. Residents can bring these types of materials to one of two collection facilities in their original containers for no-cost, safe disposal.

## **5.0 Needs**

While it is not possible to create an environment free from safety hazards, steps can be taken to minimize the level of risk for citizens and property. This can best be accomplished by having a population, which is aware of the hazards, and also of measures that can reduce or eliminate them. Those agencies within the City whose responsibility it is to further the health and well-being of Santee's residents need to continue striving for readiness in implementing any preventative or emergency actions which might be required.

### **5.1 Flooding**

Waterways - The major waterways in the City may continue to cause flooding problems. Since urban development generally creates more runoff than vegetated lands, it is important that future planning take into consideration the impacts of potential increased runoff. Any project proposed within a floodplain area is subject to site plan review. In addition, planning for flood control improvements for the San Diego River and other City waterways must be comprehensive, and balanced with other goals such as providing recreation and protecting valuable habitat and species, prior to constructing any improvements.

Water Reservoirs - Some homes could be damaged by water runoff from a rupture of any of the seven water reservoirs and upstream dams. It is important that future planning takes into consideration the general direction of flow in the event of a rupture in any of the reservoirs and avoids the placement of buildings in those areas. The City should encourage the water district to complete inundation studies for existing and planned reservoirs in the City.

### **5.2 Geologic / Seismic Hazards**

Potential geologic problem areas exist within the City of Santee, as indicated on the Geotechnical/Seismic Hazard Map, Figure 8-3. While the certainty of occurrence, timing, and degree of significance of geologic and/or seismic hazards cannot be accurately predicted today, it is possible to take appropriate actions which may minimize the loss of life and destruction of property within the City caused by geologic or seismic hazards.

The City should continue to evaluate geologic and seismic risks during the review of development proposals, as part of the environmental review process. Mitigation measures should be identified for any significant geologic or seismic risks that are identified and these





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measures should be placed as conditions of approval for the project. The identification of impacts and mitigation measures should be based on a project specific geotechnical investigation. The type of study required should be based on the type of project proposed and the location of the project site on the Geotechnical / Seismic Hazard Map.

**Seismic Hazards** - Potential seismic hazards within the City associated with movement along regionally active faults can neither be prevented nor predicted with any certainty. However, the existing City of Santee Emergency Plan needs to be reviewed and updated periodically to ensure that it continues to meet the changing needs of residents, transportation systems and public services in the event of a seismically induced emergency.

### 5.3 Fire Hazards

Santee's fire problems are primarily related to the large amount of brush-covered vacant land within the City, which are often not easily accessible. To minimize this potential hazard, the existing weed abatement program and other preventative measures should be emphasized. As development within the City's vacant hillside areas proceeds, adequate water pressure and delivery systems, emergency vehicle access, non-combustible roofing material and brush clearance zones should be required to ensure fire safety.

### 5.4 Crime Hazards

The most frequent crime problems within the City are thefts and burglaries within higher density residential areas, and within businesses located along Mission Gorge Road. These problems can continue to be addressed for new development through the utilization of improved building design techniques and lighting, which take into consideration defensible space strategies and through the continued promotion of the Neighborhood and Kids Watch Programs and enforcement actions for existing developed areas of the City. In addition, parking lot surveillance systems for large scale commercial developments have also proven to be beneficial.

### 5.5 Traffic Hazards



Traffic accidents along Mission Gorge Road are primarily due to heavy traffic volumes in association with numerous entrances and exits, which results in an increase in conflicting traffic movements. The City should continue to require the installation of shared driveways and reciprocal access between adjoining properties, in association with the implementation of other traffic control devices including the utilization of center medians, left turn pockets and signalized intersections, all of which would reduce conflicting traffic movements and potential for traffic accidents.

### 5.6 Aircraft Hazards

There are currently no areas in the City which are within designated crash hazard zones as identified in the Comprehensive Land Use Plans for either Gillespie Field or Marine Corps Air Station Miramar. However, the various Airport Safety Zones designated by the Caltrans Division of Aeronautics do extend into the City. While these areas are almost entirely developed, the City should ensure that future development or redevelopment in the most restrictive safety zones





addresses airport safety issues through measures such as recordation of avigation easements and should discourage the establishment of sensitive uses such as hospitals and schools in those zones.

Future updates of the CLUPs for these two airfields should be carefully reviewed by the City to identify any future aircraft safety issues.

**5.7 Disaster Preparedness**

The City has an Emergency Operations Plan that provides specific implementation measures in case of any natural or human-induced disasters. Update of this Plan is an ongoing process by which the City maintains an adequate level of public safety.

The City also has implemented procedures to initiate a coordinated Emergency Operations Center in the event of a significant natural or man-induced disaster. The City should continue to provide annual training to critical personnel to improve effectiveness in the event of an actual disaster.

**6.0 Goal**

**The goal of the Safety Element is to minimize injuries, loss of life, and property damages resulting from natural and human-induced safety hazards.**

**7.0 Objectives and Policies**

**Objective 1.0 Minimize injuries, loss of life and property damage resulting from flood hazards.**

Policy 1.1 The City should encourage the use of innovative site design strategies within the floodplain which ensure minimizing of flood hazards, maintaining the natural character of waterways and maximize the use of water as a design feature.

Policy 1.2 All development proposed within a floodplain area shall be required by the City to utilize design and site planning techniques to ensure that structures are elevated at least one foot above the 100-year flood level.

Policy 1.3 All proposed projects which would modify the configuration of any of the three main waterways in Santee (San Diego River and Sycamore and Forester Creeks) shall be required to submit a report prepared by a registered hydrologist that analyzes potential effects of the project downstream as well as in the local vicinity.

Policy 1.4 The City should actively pursue the improvement of drainage ways and flood control facilities so as to lessen recurrent flood problems and include such public improvements in the Capital Improvements Program for the City.

Policy 1.5 The City should pursue the identification of flood hazard areas along Fanita and Big Rock Creeks and apply protective measures where necessary.





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Policy 1.6 The City should require a hydrologic study, including the analysis of effects on downstream and upstream properties and on the flood-carrying characteristics of the stream, for development proposed in the floodplain.

Policy 1.7 Critical Emergency uses (hospitals, fire stations, police stations, the Emergency Operations Center, public administration buildings and schools) shall not be located in flood hazard areas or in areas that would affect their ability to function in the event of a disaster.

Policy 1.8 Development within the 100-year floodway shall be prohibited, subject to the provisions of the City's Flood Damage Prevention Ordinance.

Policy 1.9 For the purpose of land division, floodway areas shall not be included in the calculation of net area.

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### **Objective 2.0 Minimize the loss of life and destruction of property in Santee caused by seismic and geologic hazards.**

Policy 2.1 The City should utilize existing and evolving geologic, geophysical and engineering knowledge to distinguish and delineate those areas that are particularly susceptible to damage from seismic and other geologic conditions.

Policy 2.2 The City should ensure that if a project is proposed in an area identified herein as seismically and/or geologically hazardous, the proposal shall demonstrate through appropriate geologic studies and investigations that either the unfavorable conditions do not exist in the specific area in question or that they may be avoided or mitigated through proper site planning, design and construction.

Policy 2.3 The City shall require that all potential geotechnical and soil hazards be fully investigated at the environmental review stage prior to project approval. Such investigations shall include those identified by Table 8.1, Determination of Geotechnical Studies Required, and such soil studies as may be warranted by results of the Initial Environmental Study.

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### **Objective 3.0 Minimize the risk of damage to persons, property and the environment caused by hazardous materials.**

Policy 3.1 The City shall continue to implement the County's Hazardous Waste Management Plan or develop and implement an equivalent plan.

Policy 3.2 The City shall continue to participate in the Hazardous Materials Incident Response Team in dealing with hazardous materials incidents.

Policy 3.3 The City shall require that any potential hazardous materials issues be fully investigated at the environmental review stage prior to project approval.

Policy 3.4 The City shall review any proposed uses involving the use, transport, storage or handling of hazardous waste to ensure that such uses will not represent a significant risk to surrounding uses or the environment.

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Policy 3.5 The City shall continue to provide for a household hazardous waste collection program for City residents as part of the contract with the City trash franchisee.

Policy 3.6 The City shall control the location, manufacture, storage or use of hazardous materials in Santee through Zoning Ordinance implementation and the Development Review process.

Policy 3.7 Encourage safe and proper disposal of household hazardous waste.

Policy 3.8 Promote safe, environmentally sound means of solid waste disposal for the community.

Policy 3.9 Investigate ways to encourage businesses to recycle their waste.

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**Objective 4.0      Minimize injuries, loss of life and property damage resulting from fire hazards.**

Policy 4.1 Proposed developments should be approved only after it is determined that there will be adequate water pressure to maintain the required fire flow at the time of development.

Policy 4.2 The City should ensure that all new development meets established response time standards for fire and life safety services.

Policy 4.3 The City shall require the installation of fire hydrants and establishment of emergency vehicle access, before construction with combustible materials can begin on an approved project.

Policy 4.4 The City shall require emergency access routes in all developments to be adequately wide to allow the entry and maneuvering of emergency vehicles.

Policy 4.5 The City should support State legislation that would provide tax incentives to encourage the repair or demolition of structures that could be considered fire hazards.

Policy 4.6 The City should support the continuation of the existing weed abatement program.

Policy 4.7 The City shall ensure that the distribution of fire hydrants and capacity of water lines is adequate through periodic review.

Policy 4.8 Encourage and support the delivery of a high level of emergency services through cooperation with other agencies and use of available financial opportunities.

Policy 4.9 All proposed development shall satisfy the minimum structural fire protection standards contained in the adopted edition of the Uniform Fire and Building Codes; however, where deemed appropriate the City shall enhance the minimum standards to provide optimum protection.





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Policy 4.10 Encourage the continued development, implementation and public awareness of fire prevention programs.

Policy 4.11 In order to minimize fire hazards, the Santee Fire and Life Safety Department shall routinely be involved in the review of development applications. Considerations shall be given to adequate emergency access, driveway widths, turning radii, fire hydrant locations and needed fire flow requirements.

Policy 4.12 The timing of additional fire station construction or renovation, or new services shall relate to the rise of service demand in the City and surrounding areas.

Policy 4.13 Support mutual aid agreements and communications links with County and the other municipalities participating in the Unified San Diego County Emergency Service Organization.

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### **Objective 5.0      Minimize injuries, loss of life and property damage and losses resulting from criminal activities.**

Policy 5.1 The City shall encourage citizen participation in the Neighborhood and Kids Watch programs and promote the establishment of new neighborhood watch programs to encourage community participation in the patrol, and to promote the awareness of suspicious activity.

Policy 5.2 The City shall incorporate Crime Prevention Through Environmental Design (CPTED) principles into site planning for new developments and renovations of existing developments, taking into account the concepts of defensible space, surveillance, territoriality, access control and maintenance.

Policy 5.3 The City shall encourage the upgrading of building security requirements.

Policy 5.4 The City shall involve law enforcement personnel in the review of new development applications through participation in the Development Review process.

Policy 5.5 All structures should be adequately identified by street address and be lighted sufficiently to deter criminal activity.

Policy 5.6 The City should work with the school districts in the establishment of a permanent School Resource Officer program, or similar measure to provide a law enforcement presence at city schools.

Policy 5.7 The City should support the County of San Diego's efforts to relocate the existing Las Colinas jail as part of a state-of-the-art consolidated justice facility to be located elsewhere on the County's Town Center property.

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### **Objective 6.0      Minimize injuries, loss of life, and property damage resulting from traffic hazards**

Policy 6.1 The City shall continue to review traffic safety problems and enforcement of





parking regulations.

Policy 6.2 The City shall promote the utilization of traffic control devices such as signals, medians and other street design measures along busy roadways to regulate, warn, and guide traffic, thereby diminishing traffic hazards.

Policy 6.3 Encourage ridesharing, the use of transit and other transportation systems management programs to reduce the number of vehicle miles traveled and traffic congestion.

Policy 6.4 The City shall preclude through-City truck traffic on local roadways and limit truck routes through the City to principal and major arterial roadways.

Policy 6.5 The City shall promote the establishment of shared driveways and reciprocal access between adjoining properties to reduce the number of curb cuts and reduce conflicting traffic movements on major roads.

**Objective 7.0 Minimize injuries, loss of life, and property damage resulting from airport hazards.**

Policy 7.1 The City should review all development proposed within the Gillespie Field Airport Influence Area to ensure that design features are incorporated into the site plan to address identified aircraft safety and noise hazards.

Policy 7.2 The City should discourage the establishment of additional high-risk uses, including schools, hospitals, nursing homes and daycare centers (excluding residential care facilities and small family daycare) in the Runway Protection and Inner Approach / Departure Zones for Gillespie Field.

**Objective 8.0 Ensure the efficient control of emergency operations during natural or human-caused disasters.**

Policy 8.1 The City shall continue to hold periodic disaster exercises in cooperation with the appropriate State and Federal agencies.

Policy 8.2 The City shall update its adopted emergency operations plan periodically to ensure the safety of residents, employees and visitors in times of man-made or natural disaster.

**8.0 Implementation**

There are a variety of existing Federal, State and local programs and strategies that can be utilized within the City to reduce the potential public safety hazards described within this Element. Existing regulations and review procedures and other programs which can be undertaken within the City in response to identified public safety needs for each potential public safety hazard are described below.

**8.1 Floodplain Management Regulations and Review Procedures**

1. The Colby-Alquist Floodplain Management Act prohibits the placement of structures in the







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floodway, except for public utility or communication lines.

2. The City's Flood Damage Prevention Ordinance limits the placement of structures and uses in flood prone areas, controls dredging, filling or other activities that could modify the natural floodplain and prevents construction of barriers or structures that could divert floodflows and cause upstream or downstream impacts.
3. The City Zoning Ordinance applies the Park/Open Space district designation to all property within the floodway of the San Diego River and Forester Creek. The development of property within the floodplain of these waterways is reviewed by the City to ensure that all building elevations are one foot higher than the peak flow level of a 100-year flood.
4. The City's Public Works Standards give specific requirements for design of drainage facilities to ensure they are properly sized to handle 100-year flood conditions.
5. The State Department of Water Resources' Division of Safety of Dams inspects all dams in California.
6. In order for property owners within the City to qualify for Federal flood insurance, the City must have a program of identifying flood hazard areas and controlling development within these areas. The City has met these qualifications by maintaining up-to-date floodplain maps and controlling new development through the floodplain designator of the Zoning Ordinance and other provisions of the Municipal Code.
7. The Uniform Building Code and Subdivision Ordinance regulate new development and other activities that may impact drainage ways or flood control facilities.

### 8.2 Geologic / Seismic Hazards Regulations and Review Procedures

The implementation of an effective geologic/geotechnical review process necessitates the development of a methodology for determining the level of geologic risk or hazard associated with the development of various types and/or functions of structures within particular (geologic) areas within the City of Santee. This review process shall include:

1. A classification of structure types or functions relative to their sensitivity to potential geologic risk.
2. Minimum suggested requirements for the level of geotechnical investigation for various combinations of site location and type of structure or development.
3. Design considerations that can be integrated into the proposed project design to avoid or adequately mitigate potential geologic hazards.

The factors requiring consideration are the type and/or function of a structure, the presence of geological hazards at the proposed site and the level of risk that can be accepted. In areas of potentially higher risk or where more critical structures are planned, special design considerations will be necessary to reduce the level of risk to an acceptable factor. The intent is to provide a basis for evaluating specific site/structure combinations and to eliminate those that are unsuitable.

Implementation of step (1) and (2) of the aforementioned review process can be accomplished through implementation of those actions stated in Table 8.1, Determination of Geotechnical





Studies Required. This Table indicates the minimum suggested requirements for the level of geotechnical study for various combinations of site location and type of structure or development. Table 8.2, Types of Geotechnical Studies provides a description of the various report types.

**Table 8.1**

**Geotechnical Studies Required**

**Group I:** Occupancy Category 1, Essential and Critical facilities (hospitals, fire and police, power generation, communications and dams. In addition, Occupancy Category 2, hazardous facilities including structures housing or supporting toxic or explosive chemicals or substances

**Group II:** Occupancy Category 3, Special Occupancy structures including schools, churches, main roads, large commercial and industrial structures, high-rises, and other high occupancy structures

**Group III:** Occupancy Category 4, Residential, single-family homes, small apartments, motels, small commercial and industrial structures, and warehouses

**Group IV:** Relatively insensitive to geologic or seismic risk including golf courses, open spaces, parks, and landfill areas. Landfill areas may require detailed geologic studies for environmental considerations.

Stability Category	Group I	Group II	Group III	Group IV
<b>Generally Stable Areas</b> Underlain by granitic rock or gentle slopes	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Reconnaissance Seismic Hazard Study	Geotechnical Investigation Geologic Reconnaissance	Geologic Reconnaissance
<b>Moderately Stable Areas</b> Underlain by Stadium Conglomerate	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Reconnaissance	Geologic Reconnaissance
<b>Moderately Unstable Areas</b> Underlain by Friars Formation, Landslides or debris flow	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geologic Reconnaissance
<b>Potentially Liquefiable Areas</b> Possibly Underlain by alluvium and a high water table	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geotechnical Investigation Geologic Investigation Seismic Hazard Study	Geologic Reconnaissance





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**Table 8.2  
Types of Geotechnical Studies**

Report Type	Description
Geologic Reconnaissance	<ul style="list-style-type: none"> <li>• Performed under the supervision of, and signed by a Certified Engineering Geologist in the State of California</li> <li>• Conducted during the initial planning stages</li> <li>• Includes a literature search (available records, published geologic maps, aerial photographs), research on existing problems in the area, a site description, and a field inspection to identify and assess potential geologic hazards requiring further study</li> <li>• Recommends the scope of additional geotechnical studies</li> <li>• Engineering design recommendations are not included in a Geologic Reconnaissance</li> </ul>
Geologic Investigation	<ul style="list-style-type: none"> <li>• Performed under the supervision of, and signed by a Certified Engineering Geologist in the State of California</li> <li>• Can be conducted during the environmental review process, but usually occurs at the tentative map stage</li> <li>• Considers the conditions of preliminary grading plans, i.e. hazardous building sites, stabilization, excavations, and / or avoidance of hazardous soils types</li> <li>• Includes literature review, field investigation, subsurface testing, laboratory analysis, and special design criteria</li> <li>• Includes preparation of a Geologic Map and a description of geologic conditions</li> <li>• Recommends the scope for additional geotechnical studies</li> </ul>
Geotechnical Investigation	<ul style="list-style-type: none"> <li>• Performed under the supervision of, and signed by a Certified Engineering Geologist and licensed Registered Civil Engineer practicing in the field of soil engineering or a Geotechnical Engineer registered in California</li> <li>• Normally conducted in conjunction with Geologic Investigations</li> <li>• Considers final grading plans</li> <li>• Includes literature review, field investigation, subsurface testing, laboratory analysis, and special design criteria. Conclusions and recommendations include foundation design and recommended grading specifications</li> <li>• Includes preparation of a Geologic Map and a description of geologic conditions</li> </ul>
Seismic Hazard Study	<ul style="list-style-type: none"> <li>• Performed under the supervision of, and signed by a Certified Engineering Geologist and licensed Registered Civil Engineer practicing in the field of soil engineering or a Geotechnical Engineer registered in California</li> <li>• Conducted in accordance with the guidelines set forth by the California Geological Survey</li> </ul>

Critical structures, as shown under Group I in the Table, are primarily emergency facilities that must remain in service in the event of a disaster, or any large structures intended for high





occupancy. In regard to seismic investigations for critical structures, very thorough studies should be conducted. These studies should be performed in accordance with "Guidelines to Geologic/Seismic Reports," California Division of Mines and Geology (CDMG), Notes Number 37 and "Recommended Guidelines for Determining the Maximum Credible and the Maximum Probable Earthquakes," CDMG Notes Number 43.

Step (3) of the review process can be implemented through the environmental review process as mandated by the California Environmental Quality Act (CEQA). CEQA requires all significant environmental effects of a proposed project, including geologic and soil conditions, to be identified and discussed, and identified significant effects are adequately mitigated. The procedure consists of a review to ensure that all pertinent geotechnical considerations had been adequately addressed and that appropriate land use and design considerations or siting alternatives be integrated into the project to mitigate identified hazards.

**8.3 Fire Hazard Regulations and Review Procedure**

1. The Uniform Building and Fire Code adopted by the City provides fire protection standards for all construction with requirements for fire separation walls, special setbacks and fire buffers and, interior sprinkler systems.
2. The Santee Fire Department administers a weed abatement program to limit fire hazards in and around developed areas.
3. City Building Inspectors and/or the City Fire Marshal inspect all new or altered buildings or structures to be sure they do not contain fire or safety hazards.
4. The Municipal Code includes regulations pertaining to emergency operations in case of fire, disaster or extreme peril.
5. Provide Uniform Fire Code and California Code of Regulations training to Santee Fire and Life Safety Department so they can better enforce the code by risk analysis and interpretation.

**8.4 Traffic Safety**

1. The California Highway Patrol is responsible for enforcing traffic laws on State Routes 67, 52, and 125.
2. The Santee Sheriff's Department is responsible for enforcing the State Vehicle Code within Santee.
3. The City has traffic and parking regulations to ensure the safe movement of traffic and emergency vehicle access.
4. The City uses the environmental review process to determine traffic analysis requirements and improvements that may be necessary with all proposed development.





## **SAFETY ELEMENT**

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### **8.5 Crime Prevention Laws and Codes**

1. The Santee Sheriff's Department is responsible for enforcing the State Vehicle Code and Penal Code within Santee.
2. Incorporate Crime Prevention through Environmental Design and defensible space principles into the Zoning Ordinance.
3. Establish a funding source in conjunction with the school district to maintain School Resource Officers or other similar intervention presence in local schools.
4. The City shall support the Neighborhood and Kids Watch programs by assisting the Sheriff's Department in initiating and continuing Neighborhood Watch programs. A similar program for commercial areas should be considered and may be implemented by the Chamber of Commerce or other similar organizations.
5. The City Municipal Code includes provisions regulating the use of firearms and for emergency procedures during civil disturbances.

### **8.6 Airport Safety Regulations and Review Procedure**

1. The San Diego County Regional Airport Authority reviews all projects and actions proposed within the boundaries of the designated Area of Influence for the Gillespie Field and the Miramar MCAS Comprehensive Land Use Plans. The California Public Utilities Code provides that the Regional Airport Land Use Commission may conduct a hearing to determine a project's compatibility with an airport's Comprehensive Land Use Plan. The recommendation is binding on the local agency unless its governing body overrules the decision by at least a four-fifths vote.
2. The Federal Aviation Administration enforces standards for the construction or alteration of any structures that may affect the navigable airspace. Advisory Circular No. 70/7460-2G provides specific details on height limits at various distances from airports.
3. The Airport Approaches Zoning Law, contained in the California Government Code, includes regulations pertaining to land use in the vicinity of and within airports.
4. The City should review all development proposed within the Gillespie Field Airport Influence Area to ensure that design features are incorporated into the site plan to address identified aircraft crash hazards.
5. The California Environmental Quality Act (Section 21096) requires the use of the Airport Land Use Planning Handbook prepared by the California Department of Transportation's Division of Aeronautics to be used as a technical resource in evaluating airport-related noise and safety issues.

### **8.7 Hazardous Materials Review Procedures**

1. The City's Development Review Ordinance procedures and the Uniform Fire Code provide authority to regulate and limit the manufacture, storage or use of hazardous materials within the City.



## SAFETY ELEMENT



2. The City will continue to provide Household Hazardous Waste collection to specified location to assist Santee residents in the proper disposal of household hazardous waste.

### 8.8 Emergency Operations Strategies

1. The City has adopted an Emergency Operations Plan as a means of dealing with a range of events that could interfere with normal operations in Santee. The Santee Fire Department shall periodically update the Emergency Operations Plan to address public safety needs.
2. The Fire Department shall continuously assess the level of community risk in the City to evaluate its ability to provide an adequate level of fire and emergency services.
3. The City shall maintain communication with State safety personnel, County, local school districts and City Fire and Sheriff departments to coordinate emergency response efforts.
4. The City shall continue to provide and promote public access cardiac defibrillators and community based Cardiopulmonary Resuscitation (CPR) programs to citizens via neighborhood watch, health clubs, professional groups, youth groups, churches and any other groups and individuals willing to learn life saving CPR.
5. The Development Services Department should review and provide recommendations to the City Council for revisions to the Implementation Program as needed in order to continue implementation of the Santee General Plan.

