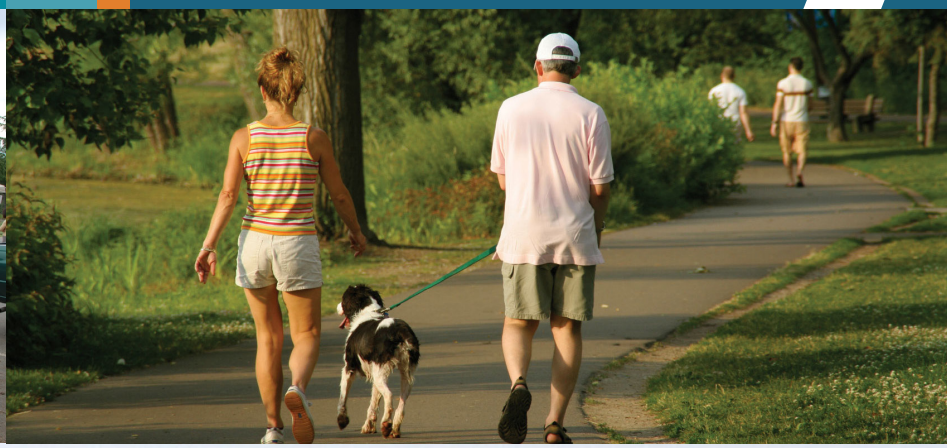
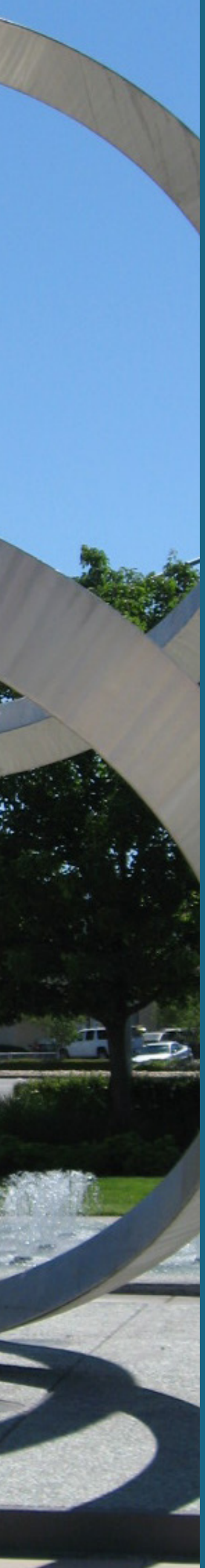
7 health and safety





Introduction

Community health and public safety responsibilities have to evolve to address the community's growth and changing needs. The City is committed to maintaining a high level of preparedness to protect the community from risks to life, property and the environment associated with both natural and human-caused disasters and hazards. In the future, more emphasis will be placed on sustainable approaches to community health and safety, including crime and fire prevention through design, improved use of technology, management of hazardous materials and improved disaster planning.

This Element includes goals, policies and strategies that address the potential risks associated with these hazards, actions the City can take to reduce these risks, and ways the City and community can take more sustainable approaches for preventing or minimizing injuries to life and damages to property.

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Noise

CONTEXT

EMERGENCY PREPAREDNESS

Emergencies can severely impact the health of a community and a city or agency's ability to provide needed services. Emergencies can include natural disasters such as earthquakes, floods and forest fires, or others events such as infrastructure disruptions, security incidents or hazardous spills. Emergency preparedness includes activities that are undertaken before an emergency occurs so there is an effective and coordinated response.

Emergency preparedness requires the integration of the following elements into each of the City's functions: emergency planning, coordination, mitigation, training and public education. The City, its contributing agencies, and the community are partners in ensuring that emergency planning is effectively implemented.

CUPERTINO EMERGENCY PLAN

State law requires cities to prepare an emergency plan in order to effectively respond to natural or human-caused disasters that threaten lives, the natural environment or property. The Cupertino Emergency Plan establishes an organizational framework to enable the City to manage its emergency response activities and to coordinate with County, State and Federal agencies. The Emergency Plan was prepared in accordance with the National Incident Management System (NIMS) and is used in conjunction with the State Emergency Plan, the Santa Clara Operational Disaster Response and Recovery Area Interim Agreement, Santa Clara County Emergency Plan, as well as plans and Standard Operating Procedures (SOPs) of contract agencies and special districts. Support personnel such as City staff, special districts and volunteer groups are trained to perform specific functions in the Emergency Operations Center. The plan is reviewed annually and tested through periodic emergency disaster drills.

EMERGENCY OPERATIONS CENTER

The City's Emergency Operations Center (EOC) is located on the first floor of City Hall, with an alternative location in the Service Center on Mary Avenue. The EOC has the ability to be fully functional within 30 minutes of activation. Capabilities include emergency backup power, computer network and internet access, and telephone and radio communications to City and County sites. While the staffing and duties are actively managed through the Emergency Plan, there may be additional physical and seismic improvements required to City Hall to ensure that it can continue to meet the requirements of an EOC. Additional communication support is provided by volunteers from Cupertino Amateur Radio Emergency Service (CARES). CARES volunteers coordinate extensive citywide communications capabilities, including helping to connect neighbors, public safety officials, special districts, City and County Departments.

DISASTER SERVICE WORKERS

During emergencies, all City employees are designated Disaster Service Workers under Section 3100 of the California Government Code. They are required to remain at work as long as they are needed, and receive specific training in personal and home preparedness, First Aid, CPR, NIMS and Terrorism Awareness.

Volunteer groups also play an important role in the City's Emergency Plan. The City is part of a countywide volunteer services plan and is working with the Emergency Volunteer Center, Blockleaders, and Neighborhood Watch to develop a plan for coordinating and deploying volunteers. Citizen Corps members (CARES, CERT and MRC) continue to receive appropriate training and equipment to rapidly respond throughout the City and augment professional first responders. Unregistered and untrained volunteers may be utilized and trained, as needed during a disaster.

FIRE SAFETY

Fire fighting and emergency medical services are provided to the City by the Santa Clara County Fire Department (SCCFD). SCCFD is a full service department that provides similar services to seven other West Valley cities and adjacent county areas. Mutual aid agreements with the neighboring jurisdictions augment SCCFD's fire response capabilities. In addition to fire protection, SCCFD also conducts fire prevention inspections and educational programs, including those on Community Emergency Response Team (CERT) training, cardiopulmonary resuscitation (CPR) and first aid certification.

Due to Cupertino's geographical location, it is exposed to hazards from both wildland and urban fires. There are approximately 16 square miles of hillsides included in and around the boundary of the city. In 2009, based on vegetation data, topography and potential fire behavior, the California Department of Forestry and Fire Protection (CalFire) identified approximately three acres of the City to be in the High and Very High Fire Hazard Severity Zone. The City adopted this area as its Wildand-Urban Interface Fire Area (WUIFA). Properties in the WUIFA are subject to building and property maintenance standards intended to prevent and manage community safety due to brush and forest fires (**Figure HS-1)**. Planning for such areas also requires attention to the availability of access roads and water for firefighting and evacuation efforts.

Santa Clara County lists the Montebello Road/Stevens Canyon area as the fourth highest risk in the county. The road linking Montebello and the Palo Alto Sphere of Influence to the bottom of Stevens Canyon has been improved to acceptable standards for a fire access road. A fire trail extends from Skyline Boulevard on Charcoal Road to Stevens Canyon. The City requires that all emergency roads be constructed with an all weather surface. It also requires a private emergency access connection between public streets within Lindy Canyon and Regnart Canyon areas. Presently, there are no water systems serving the Montebello Road and upper Stevens Canyon area, with the exception of Stevens Creek itself. Because there is no water service to these areas, the County requires homes to provide individual water tanks and fire sprinkler systems (**Figure HS-2**).

The urbanized portions of Cupertino are not exposed to a high risk of fire. The City is served by a well-managed fire protection service as well as a fire prevention program. Buildings in the City are relatively new and there is a strong code enforcement program, an adequate water supply and a well-maintained delivery system. State, regional and local standards also ensure that new buildings and facilities adequately address issues of fire safety, access, evacuation and fire-fighting requirements.

Response time is one metric for measuring level of service for fighting fire and emergency services. It is the policy of SCCFD to respond to 90 percent of emergency calls not requiring a paramedic in under seven minutes. For situations where emergency medical services are required, it is the policy that paramedics arrive in less than seven minutes at least 90 percent of the time. An increase in calls for fire service and traffic congestion may affect SCCFD's critical response time, and the District may need to adjust or expand staff, and equipment in areas of high service demand in the future. **Figure HS-3** shows the location of fire stations and their service areas in Cupertino.

STATE AND LOCAL PROGRAMS

The City regulates building construction and site planning through the Uniform Fire Code and the California Building Code. The City and the SCCFD inspect commercial and industrial buildings for compliance with the applicable codes. In addition, the County Fire Marshal and the Fire Department regulate activities, including weed abatement and brush clearance, in the Wildland Urban Interface Fire Area (WUFIA).

PUBLIC SAFETY

The City, and a number of surrounding jurisdictions, contracts with the Santa Clara County Sheriff's Office, West Valley Division, for law enforcement services. Law enforcement services include police patrols, criminal investigations, traffic enforcement, accident investigation and tactical teams. The City's commitment to public safety encompasses two broad areas of responsibilities: (1) provide public safety services and the planning necessary for the prevention of crime; and (2) plan for a safe environment in which the public is not exposed to unnecessary risks to life and property.

FIGURE HS-1
WILDLAND-URBAN INTERFACE AREA (WUIFA)

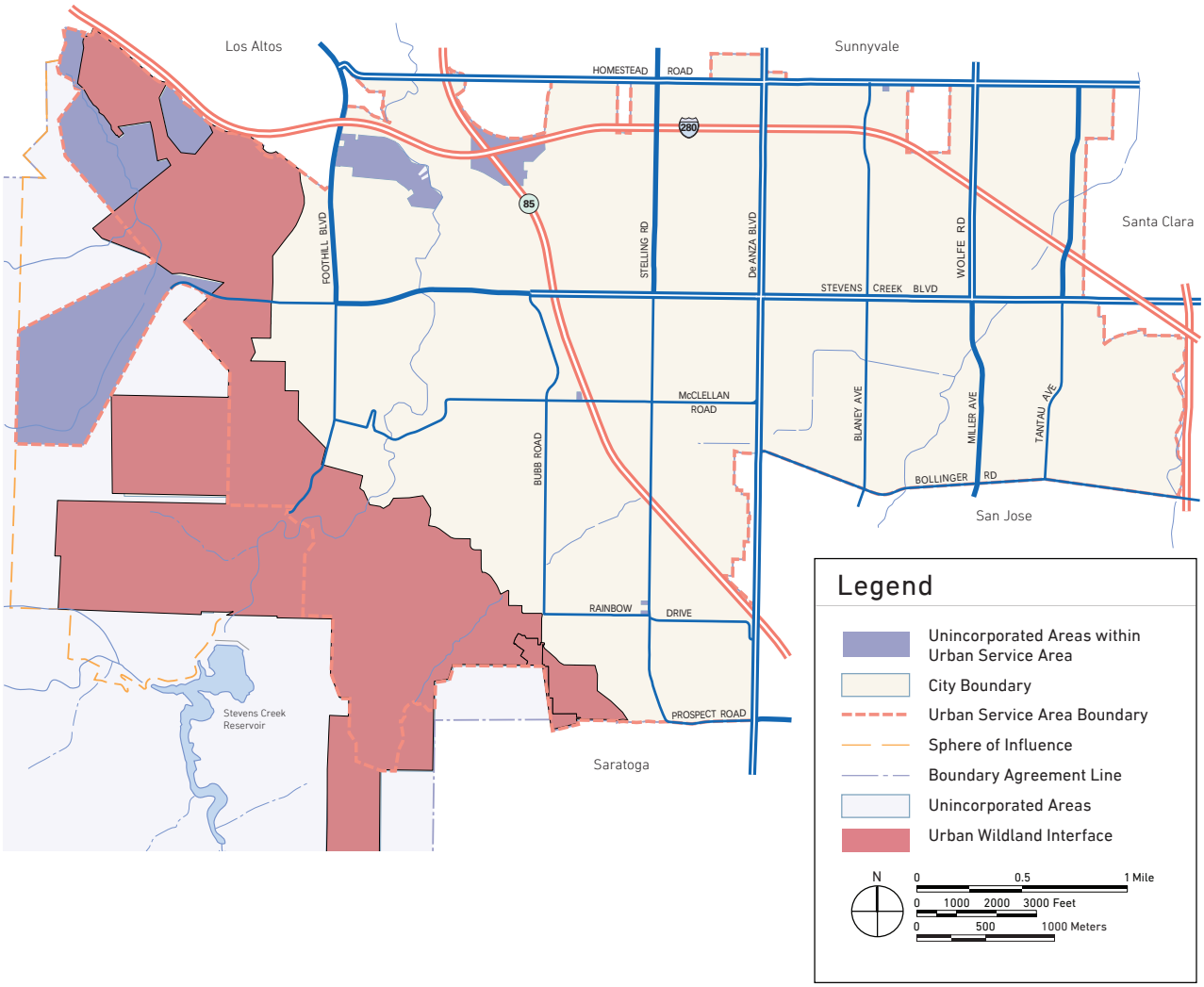


FIGURE HS-2
WATER SERVICE

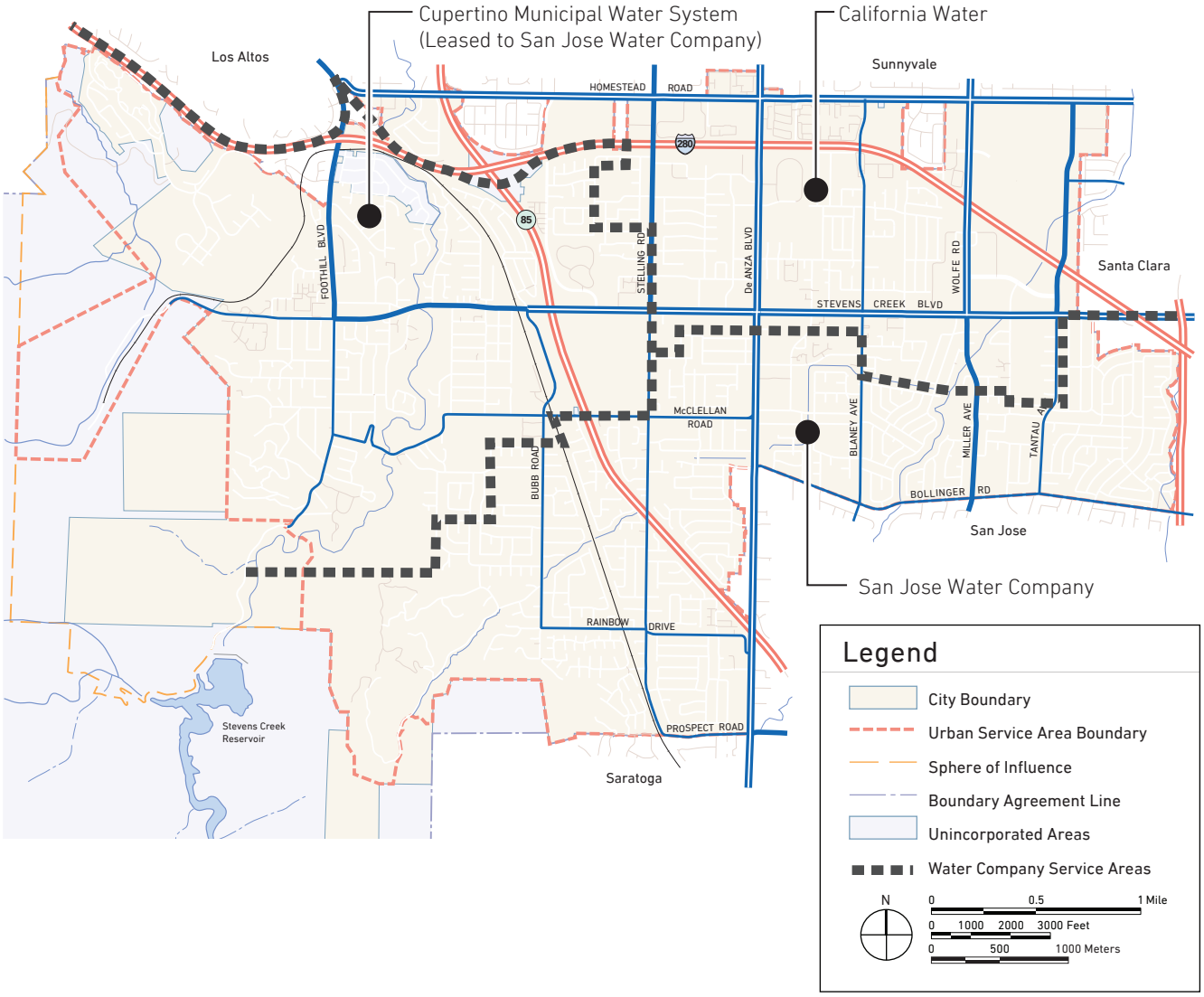
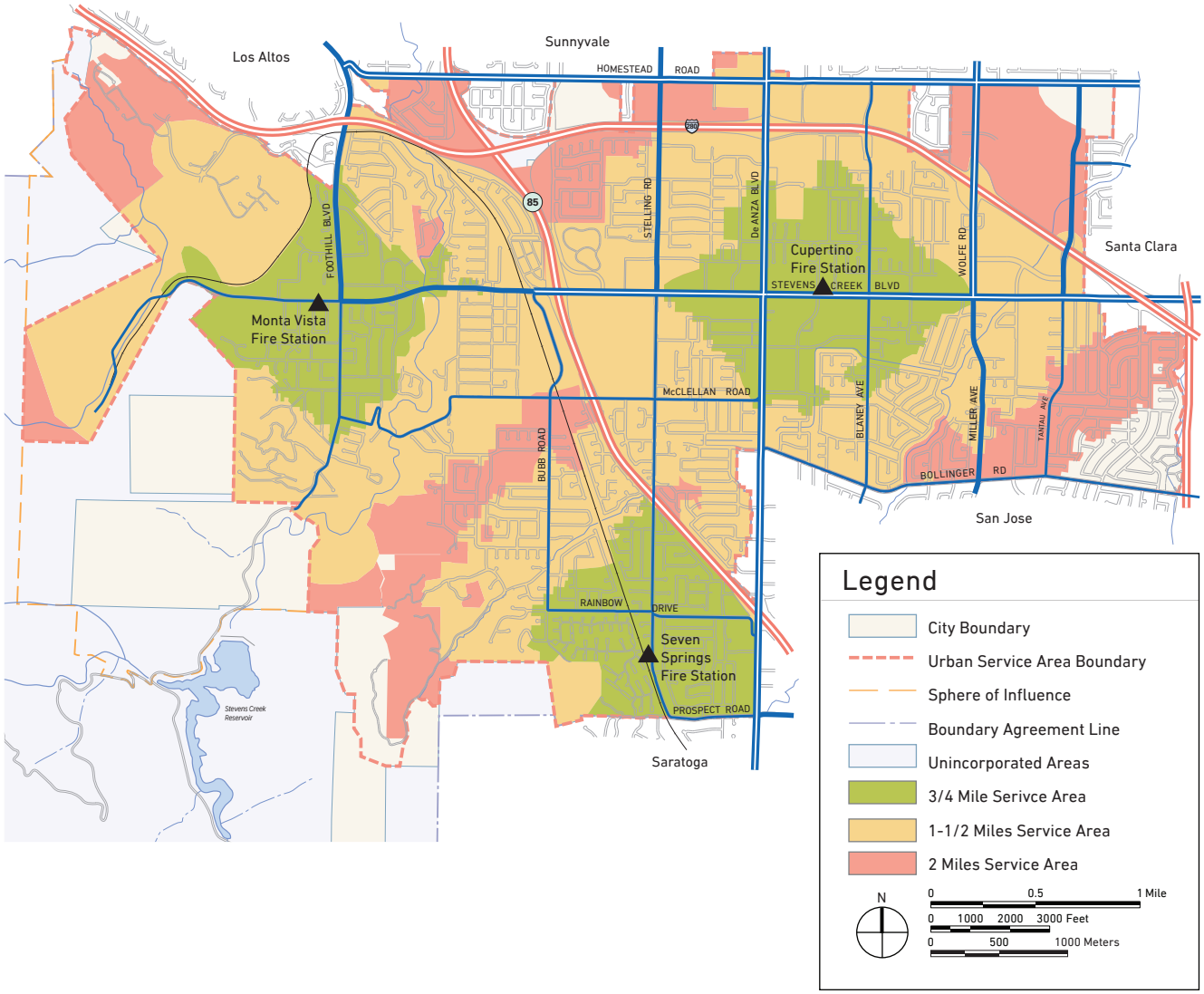


FIGURE HS-3
FIRE SERVICE



HAZARDOUS MATERIALS

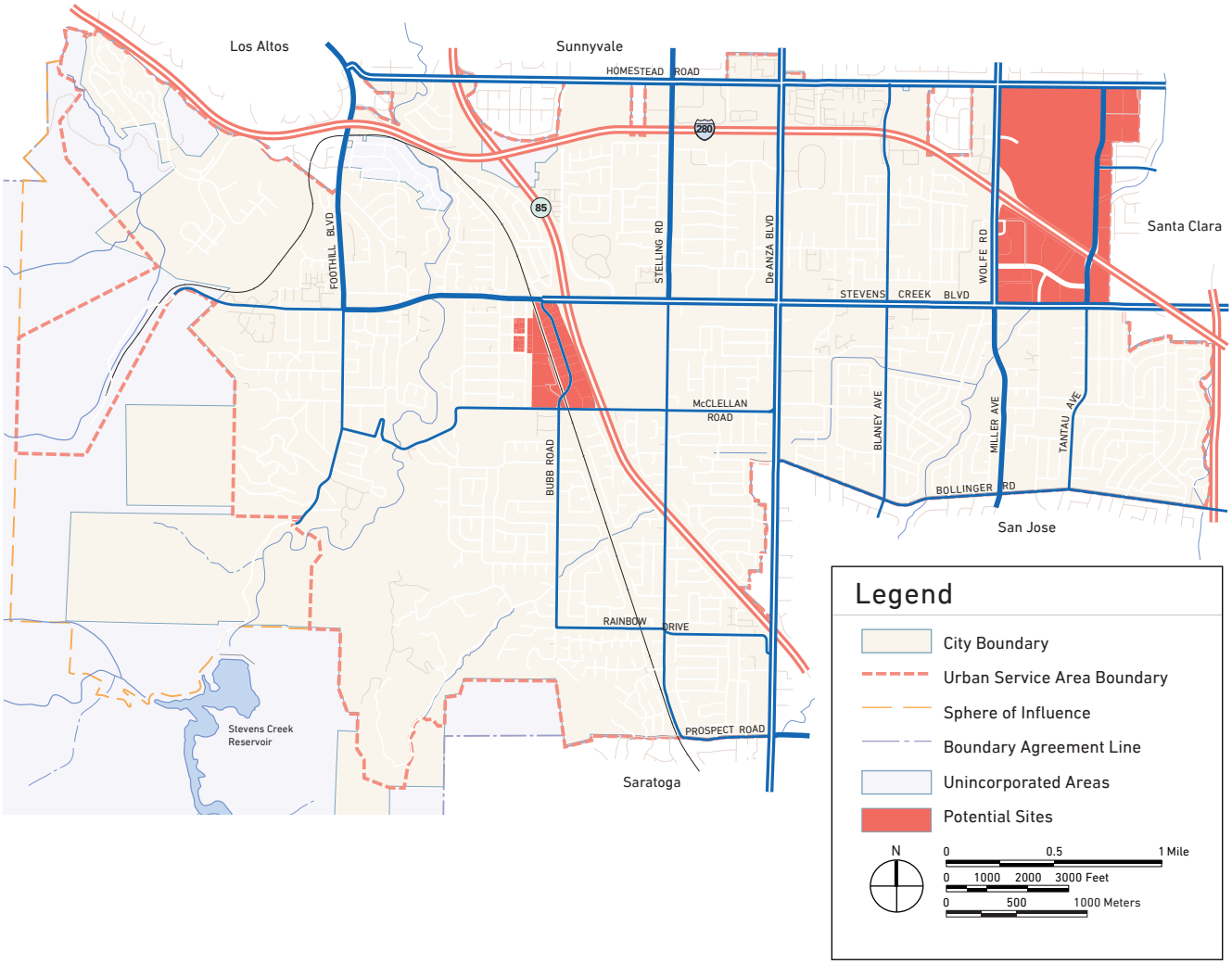
Hazardous materials are a part of our everyday life in the form of batteries, light bulbs, and household chemicals such as pesticides, motor oil, cleaners and paints. They are also used in many commercial and industrial operations. The use, storage and disposal of hazardous materials, including management of contaminated soils and groundwater, is regulated by Federal, State and local laws. The City has adopted a Hazardous Materials Storage Ordinance that regulates the storage of these materials in solid and liquid form. The City's Regulation of Facilities Where Materials Which Are Or May Become Toxic Gases Are Found Ordinance regulates the storage of hazardous materials in gaseous form. **Figure HS-4** identifies potential sites within the city that may contain hazardous materials.

Since 1990, State law has required that hazardous waste be properly disposed of in approved hazardous waste treatment or disposal facilities. To accomplish this, new treatment methods and facilities have been developed and approved to pre-treat hazardous waste before its final disposal. Under authority of the 1986 "Tanner" Bill (AB 2948), Cupertino, along with 13 other cities, joined the County to develop a comprehensive and coordinated planning approach to hazardous waste disposal. In 1990, a countywide Household Hazardous Waste (HHW) Program was created. In order to supplement the County HHW Program and make the collection of HHW more convenient for residents, the City currently provides a door-to-door hazardous waste retrieval service through its solid waste franchise agreement.

ELECTROMAGNETIC FIELDS

Electromagnetic fields are a physical field produced by electrically charged objects, such has high transmission power lines. The potential health effects of the very low frequency EMFs surrounding power lines and electrical devices are the subject of on-going research and a significant amount of public debate. The US National Institute for Occupational Safety and Health (NIOSH) has issued some cautionary advisories but stresses that the data is currently too limited to draw good conclusions. Currently, electromagnetic fields from transmission lines, electrical and wireless facilities, and appliances are heavily regulated through Federal and State requirements.

FIGURE HS-4
POTENTIAL HAZARDOUS SITES

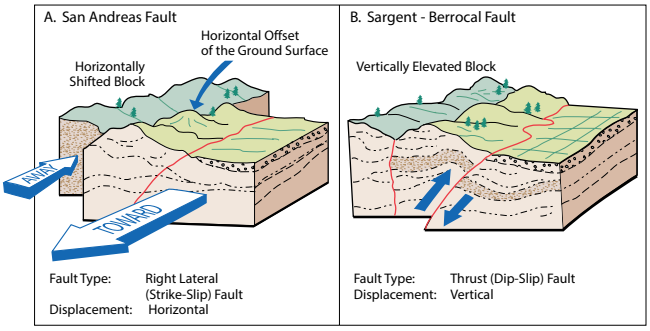


GEOLOGIC AND SEISMIC HAZARDS

Cupertino is located in the seismically active San Francisco Bay region, which has several active seismic faults. The San Andreas fault, one of the longest and most active faults in the world, is located west of Cupertino. Two additional faults closely associated with the San Andreas fault, the Sargent-Berrocal and Monta Vista-Shannon fault systems, also cross the western portion of the city. Movement on the San Andreas fault is predominantly right-lateral strike-slip, where the earth ruptures in a horizontal fashion, with the opposite sides of the fault moving to the right with respect to each other. Movement on the Sargent-Berrocal and Monta Vista-Shannon faults is more variable in style. Both of these faults are characterized by "thrust" faulting, where a significant amount of vertical "up-down" (so called dip-slip) displacement occurs on an inclined plane, and one side of the fault is elevated (i.e., thrust over) the other side.

Primary geologic hazards in Cupertino are related to landslides and seismic impacts. Seismically induced ground shaking, surface fault rupture, and various forms of earthquake-triggered ground failure are anticipated within the city during large earthquakes. These geologic hazards present potential impacts to property and public safety. **Tables HS-1** through **HS-4** briefly explain seismic hazards, magnitude and occurrence, acceptable exposure rise, and technical investigations required based on acceptable risk. **Figure HS-5** identifies the areas in Cupertino susceptible to the greatest risk. Also see **Technical Appendix E** for additional information on geologic and seismic hazards and risks.

Following the 1983 Coalinga and 1994 Northridge earthquakes, scientists became increasingly aware of earthquakes generated by faults not previously observed at the earth's surface. These types of faults are called "blind faults," and represent a type of thrust fault that does not rupture completely to the surface. It is possible that one or more "blind faults" are present in the Monta Vista-Shannon fault system.



Faults within the Cupertino planning area are characterized by (A) Horizontal and (B) Vertical displacements.

FIGURE HS-5
GEOLOGIC AND SEISMIC HAZARDS

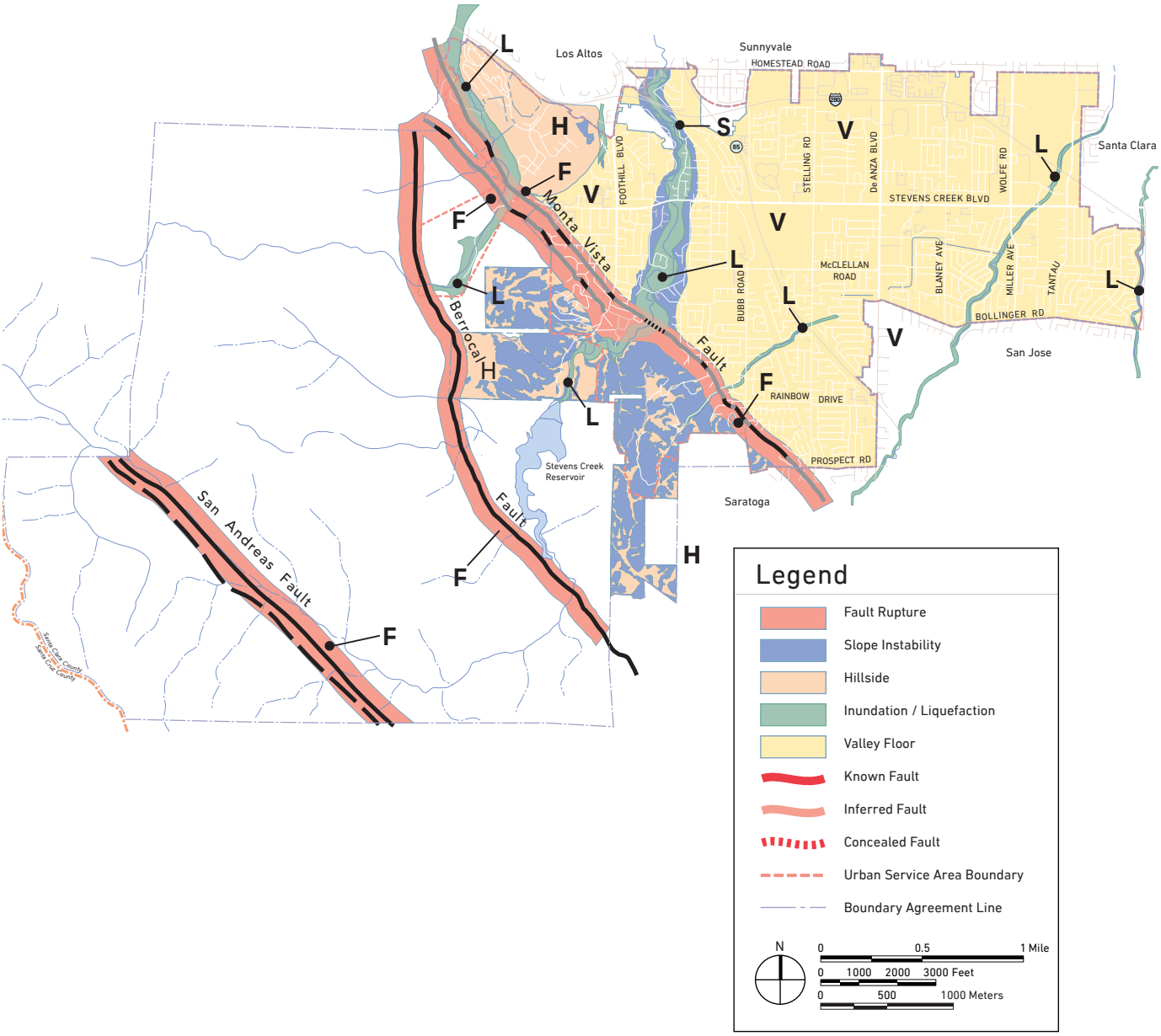


Table HS-1 Explanations of Geologic and Seismic Hazards

Zone	Description
(F)– Fault Rupture	Area of potential surface fault rupture hazard within 300 feet east and 600 feet west of the Monta Vista and Berrocal faults, and within 600 feet of the San Andreas fault.
(S)– Slope Instability	Area includes all recognized landslide deposits, and steep walls of Stevens Creek canyon, with a moderate to high landslide potential under static or seismic conditions. Area also reflects the mapped zone of potential earthquake-induced landsliding prepared by the California Geological Survey (2002).
(H)– Hillside	Area contains moderate to steep slope conditions not included in the above categories, with an undetermined potential for slope instability.
(L)– Liquefaction / Inundation	Area where local geological, geotechnical and groundwater conditions indicate a potential for liquefaction under seismic conditions. Much of this area also has the potential for periodic flood inundation. The Liquefaction/Inundation Zone is stippled where covered by an overlaying Fault Zone.
(V)– Valley	Area includes all relatively level valley floor terrain not included in the above categories with relatively low levels of geologic hazard risk.

Table HS-2 Maximum Earthquake Magnitudes and Recurrence Intervals

	Causative Faults	Distance from De Anza/SCB Intersection	Maximum Historic Moment Magnitude	Maximum Probable Moment Magnitude	Est. Recurrence Interval of Max. Prob. Earthquake
San Andreas System	San Andreas	5.5 miles	7.9	7.9	220 years
	Hayward (South)	10 miles	7.0	7.0	236 years
	Calveras (Central)	14 miles	6.3	7.0	374 years
Sargent-Berrocal System	Sargent-Berrocal	3.5 miles	3.7-5.0	6.8	330 years
	Monta Vista-Shannon	2 miles	2.0-3.0	6.8	2400 years

Table HS-3 Acceptable Exposure to Risk Related to Various Land Uses

Acceptable Exposure to Risk	Land Use Group		Extra Project Cost to Reduce Risk to Acceptable Level
Extremely Low	Group 1	Vulnerable structures (nuclear reactors, large dams, plants manufacturing/ storing hazardous materials)	As required for maximum attainable safety
	Group 2	Vital public utilities (electrical transmission interties/substations, regional water pipelines, treatment plants, gas mains)	Design as needed to remain functional after max. prob. earthquake on local faults
	Group 3	Communication/transportation (airports, telephones, bridges, freeways, evac. routes) Small water retention structures	5% to 25% of project cost
		Emergency Centers (hospitals, fire/ police stations, post-earthquake aide stations, schools, City Hall and Service Center, De Anza College)	Design as needed to remain functional after max. prob earthquake on local faults
	Group 4	Involuntary occupancy facilities (schools, prisons, convalescent and nursing homes) High occupancy buildings (theaters, hotels, large office/apartment bldgs.)	Design as needed to remain functional after max. prob. earthquake on local faults
Moderately Low	Group 5	Public utilities (electrical feeder routes, water supply turnout lines, sewage lines)	5% to 25% of project cost
		Facilities important to local economy	Design to minimize injury, loss of life during maximum probable earthquake on local faults; need not design to remain functional
Ordinary Risk Level	Group 6	Minor transportation (arterials and parkways) Low-moderate occupancy buildings (small apartment bldgs., single-fam. resid., motels, small commercial/office bldgs.)	2% of project cost; to 10% project cost in extreme cases
	Group 7	Very low occupancy buildings Open space and recreation (farm land, landfills, wildlife areas)	Design to resist minor earthquakes (warehouses, farm structures) w/o damage; resist mod. Earthquakes w/o struc. damage,with some nonstruct. damage; resist major earthquake (max. prob. on local faults w/o collapse, allowing some struc. & non-struc. damage

Table HS-4
Technical Investigations Required based on Acceptable Risk

Land Use Activity	Hazard Map Symbol	
	FSH	LV
	Evaluation Required	Evaluation Required
Groups 1 to 4	UBC	UBC
	Soils	Soils
	Geology	Seismic Hazard
	Seismic Hazard	
Groups 5 to 7	UBC	UBC
	Soils	
	Geology	

Descriptions of Technical Evaluations:

UBC Current, adopted version of the California Building Code

Soils Soils and foundation investigation to determine ability of local soil conditions to support structures

Geology Determine subsidence potential, faulting hazard, slope stability (See Geologic Map for additional detail)

Seismic Detailed Soils/Structural evaluation to certify adequacy

Hazard of normal UBC earthquake regulations or to recommend more stringent measures

FLOOD HAZARDS

The City participates in the Community Rating System (CRS) program which is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed minimum NFIP requirements. Flood insurance premium rates for property owners within the city may be discounted to reflect the reduced flood risk resulting from community actions meeting the three goals of the CRS, which are to: (1) reduce flood damage to insurable property; (2) strengthen and support the insurance aspects of the NFIP; and (3) encourage a comprehensive approach to floodplain management.

Floods are surface hydrological hazards that can have a significant, and sometimes, long lasting effect on a community. Floods can originate from various sources including heavy rainstorms, landslides and/or dam failure. Sediment deposits also increase flood risks because they clog the drainage system and may induce upstream flooding.

Rain related floods are the most common type of floods, and usually occur during periods of extended heavy rainfall. The largest body of water within the area is the Stevens Creek Reservoir. Stevens Creek Dam meets current dam safety standards and the probability of its failure is minimal (**Figure HS-6**).

The watersheds in the Santa Cruz Mountain Range feed into four major streambeds that traverse the City: Permanente Creek, Stevens Creek, Regnart Creek, and Calabazas Creek (**Figure HS-7**). Stevens Creek and its streamside are among the natural elements that have the most influence on Cupertino's character. These creeks collect surface runoff and channel it to the Bay. However, they also pose potential flooding risks if water levels exceed the top of bank as a result of heavy runoff.

The City and the Santa Clara Valley Water District are actively involved in programs to minimize the risk of flooding. The City developed an approach to land use for the non-urbanized flood plain of Stevens Creek south of Stevens Creek Boulevard in the Land Use Element. This ensures the preservation of the 100-year flood plain and the protection of the riparian corridor along this portion of Stevens Creek. The City and the Water District also developed a flood management program for the flood plain of Stevens Creek between Interstate 280 and Stevens Creek Boulevard while preserving the natural environment of Stevens Creek. Structural improvements, while not preferred, may be necessary, to protect properties from a 100-year flood.

FIGURE HS-6
FACILITY FAILURE

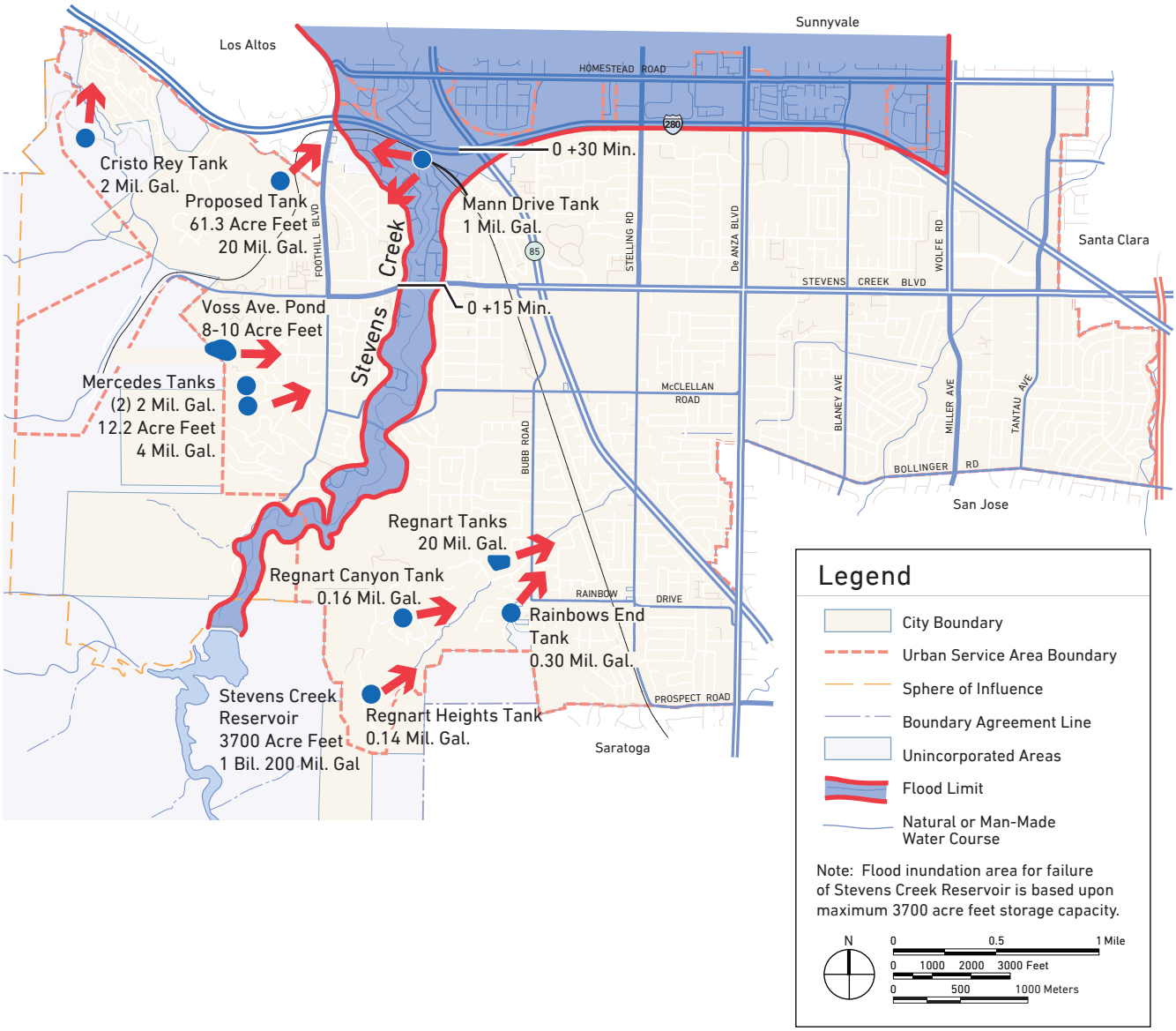
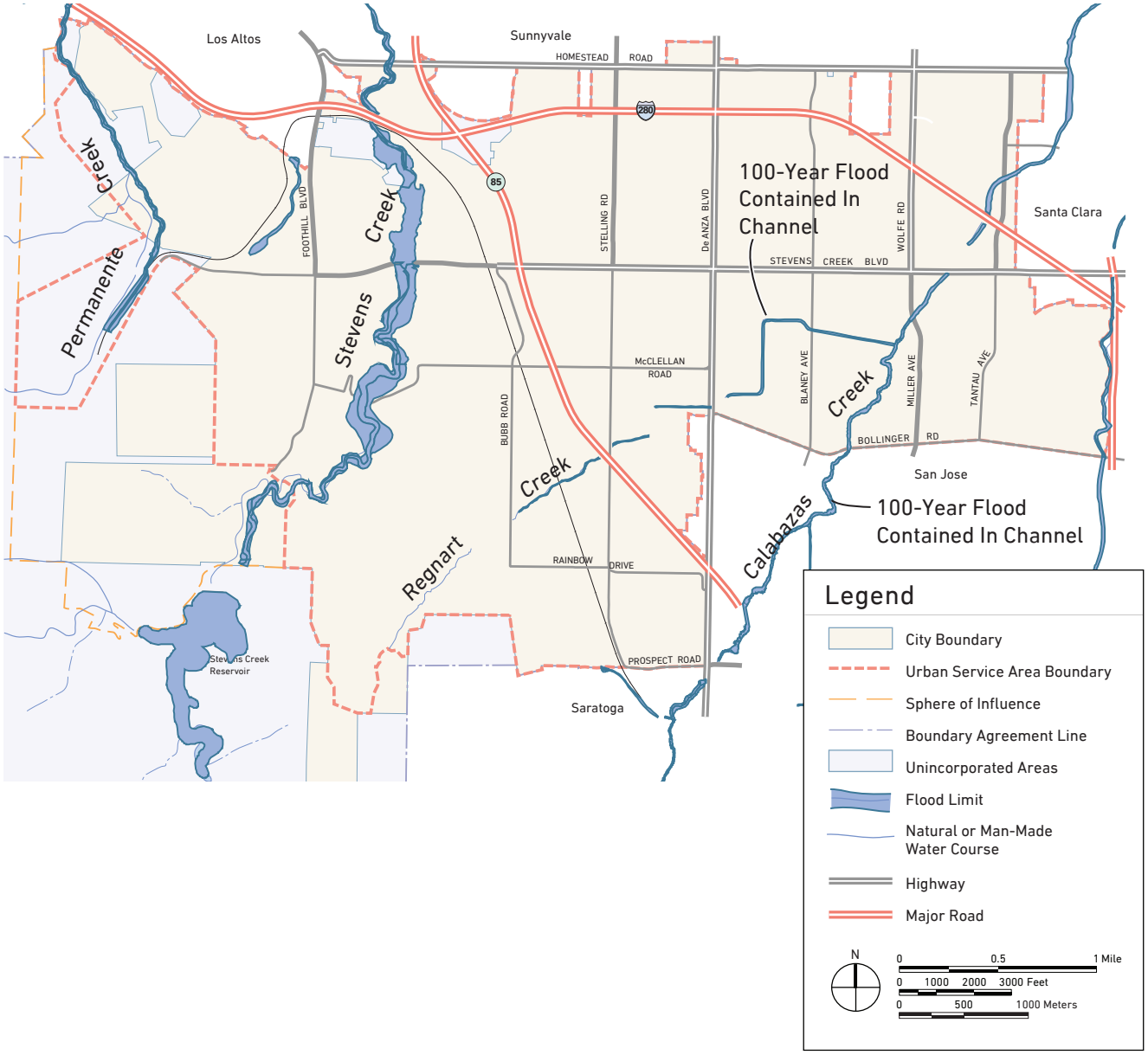


FIGURE HS-7
100-YEAR FLOOD



NOISE

The noise environment is an accumulation of many different sources, ranging from human voices to major sources such as freeway traffic. The degree to which noise becomes an annoyance depends on a variety of factors including noise level, time of day, background sounds, and surrounding land use.

COMMUNITY NOISE FUNDAMENTALS

The three elements of community noise are noise level, noise spectrum, and variation in noise level with time. Noise level is measured in decibels (dB). Noise is composed of various frequencies within a noise spectrum that define the character of the noise. Since human hearing is more sensitive to the higher speech frequencies, the A-weighted frequency network is applied, in accordance with national and international standards, to adjust the measured noise level to more closely relate to human perception of loudness.

Noise environments have different characteristics that vary with duration and time of day; for instance a freeway may emit a fairly constant noise level for long periods while an airport may emit many short-term high level noise events punctuated by extended periods of quiet. To provide a standard measure for community noise exposure that takes into account the time-varying characteristics, the State of California adopted the Community Noise Equivalent Level (CNEL) as the standard metric. The CNEL is a 24-hour energy average metric that penalizes evening and nighttime noise, and provides a uniform measure for time-varying noise environments.

NOISE ENVIRONMENT

The noise environment can generally be divided into two categories: transportation-related and non-transportation related noise. Traffic noise is the greatest contributor to noise pollution in Cupertino and one of the most difficult to control through local effort. Two major freeways (Interstate 280 and Highway 85) and four major corridors (Stevens Creek Boulevard, De Anza Boulevard, Homestead Road, and Foothill Boulevard) cross Cupertino. These roadways are utilized not only by local residents and employees, but also by commuters to destinations beyond Cupertino. Heavy-duty trucking operations to and from the Hanson Permanente Cement Plant and Stevens Creek Quarry located in the western foothills near Stevens Creek Boulevard and Foothill Boulevard are also a significant transportation-related noise contributor.

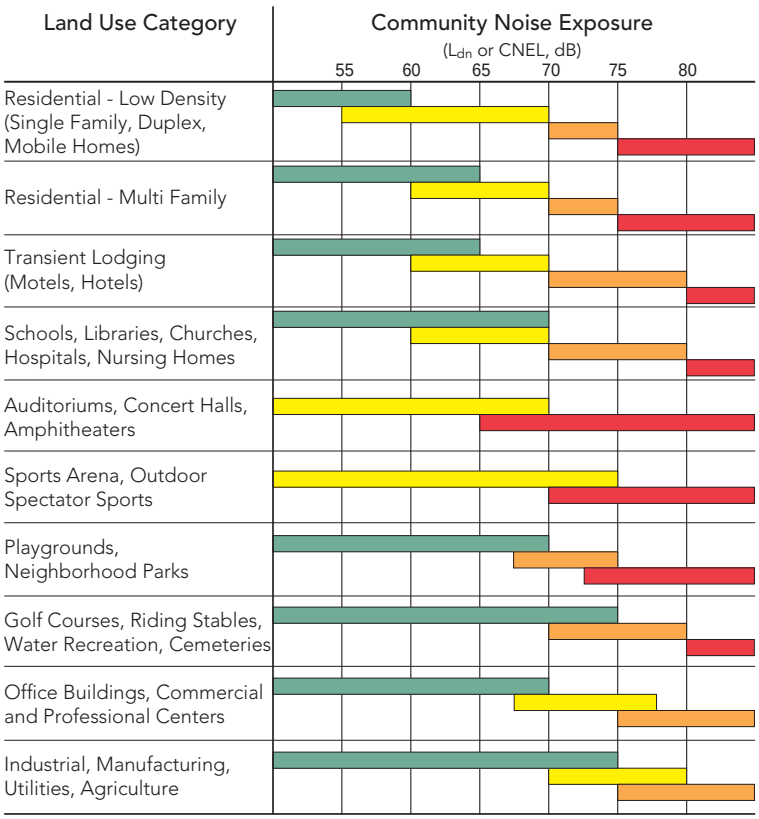
Cupertino receives some aircraft noise from facilities within the region including San Jose International Airport, Moffett Federal Airfield and Palo Alto Airport; however, the Cupertino city limit does not fall within the identified noise contours of any airport. One railroad line passes through the Monta Vista neighborhood and connects with the Hanson Permanente Cement Plant. This freight railway operates at very low frequencies, with approximately three train trips in each direction per week, usually during the daytime or early evening.

Non-transportation noise varies from stationary equipment (e.g., air conditioning units) to construction activity. Regulation to minimize excessive noise from non-transportation sources includes compliance with the City's noise standards that limit certain noise-generating activity during evening and early morning, when ambient noise levels tend to be lower. Advancements in technology to muffle sound also reduce noise from construction equipment and stationary equipment such as compressors and generators.

LAND USE COMPATIBILITY

The Cupertino Municipal Code, Title 10, outlines the maximum noise levels on receiving properties based upon land use types (**Figure HS-8**). Land use decisions and the development review process play a large role in minimizing noise impacts on sensitive land uses. Noise compatibility may be achieved by avoiding the location of conflicting land uses adjacent to one another and incorporating buffers and noise control techniques including setbacks, landscaping, building transitions, site design, and building construction techniques. Selection of the appropriate noise control technique will vary depending on the level of noise that needs to be reduced as well as the location and intended land use.

FIGURE HS-8
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



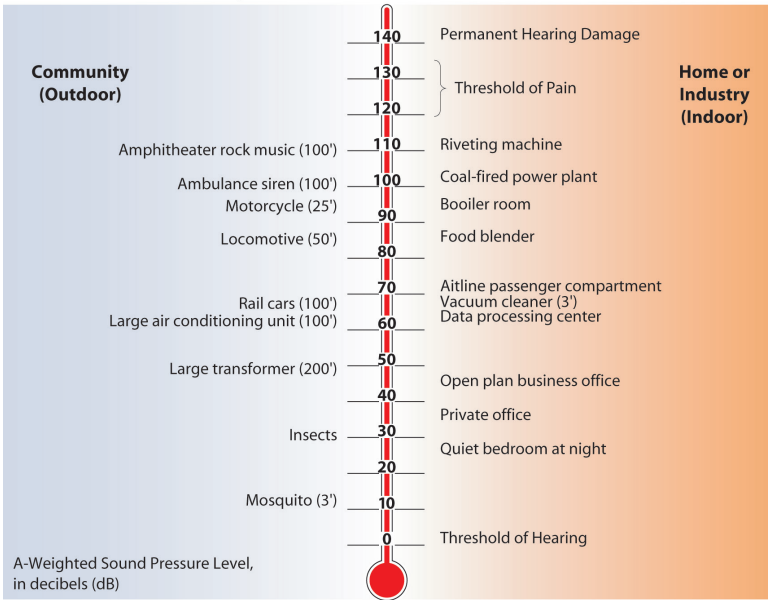
Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise reduction features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable
New construction or development should generally not be undertaken.

Representative Sounds and Sound Levels



LOOKING FORWARD

As Cupertino's resident and employee population grows, the City must identify ways to ensure public safety and support the community's high quality of life. Innovative site design and construction techniques are needed to reduce noise in developments near major corridors and where uses are mixed to ensure compatibility. Fire protection and public safety should be enhanced in a manner that provides a high quality of service while continuing to be fiscally responsible. The following are ways the City will address key challenges and opportunities facing Cupertino:

1. **NOISE.**
   As State, regional and local policies encourage mixed-use development near corridors, the City should look to ways to reduce noise impacts on residences near and in such developments through site design, landscaping and construction techniques. Additionally, the City should review locations and site design for sensitive uses including schools, childcare facilities and hospitals to ensure that they are not negatively impacted by noise.

2. **PROJECT DESIGN AND OPERATIONS.**
   Measures such as project and building design, emergency access, operations and maintenance of property, can help developments promote public and fire safety. Such measures will also allow the providers to maintain a high service level, while accommodating future growth.

3. **COMMUNITY PARTICIPATION.**
   The City and service providers should enhance community participation through new and existing programs such as neighborhood watch, emergency preparedness and school programs.

4. **SHARED RESOURCES.**
   The City can enhance emergency, fire safety and public safety services by coordinating programs with service providers and neighboring cities through shared services, mutual aid and agreements.

GOAL HS-1
Reduce hazard risks through regional coordination and mitigation planning

REGIONAL COORDINATION

The City seeks to coordinate its local requirements and emergency planning efforts with Federal, State and regional resources to ensure a consistent, integrated and efficient approach to emergency planning.

POLICY HS-1.1: REGIONAL HAZARD RISK REDUCTION PLANNING

Coordinate with Santa Clara County and local agencies to implement the Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) for Santa Clara County.

STRATEGIES:

HS-1.1.1. Monitoring and Budgeting. Monitor and evaluate the success of the LHMP, including local strategies provided in the Cupertino Annex (Section 11). Working with Santa Clara County, ensure that strategies are prioritized and implemented through the Capital Improvement Program and provide adequate budget for on-going programs and department operations.

HS-1.1.2. Mitigation Incorporation. Ensure that mitigation actions identified in the LHMP are being incorporated into upcoming City sponsored projects, where appropriate.

HS-1.1.3. Hazard Mitigation Plan Amendments and Updates. Support Santa Clara County in its role as the lead agency that prepares and updates the Local Hazard Mitigation Plan.

POLICY HS-1.2: SEA LEVEL RISE PROTECTION

Ensure all areas in Cupertino are adequately protected for the anticipated effects of sea level rise.

STRATEGIES:

HS-1.2.1. Monitor Rising Sea Level. Regularly coordinate with regional, state, and federal agencies on rising sea levels in the San Francisco Bay and major tributaries to determine if additional adaptation strategies should be implemented to address flooding hazards. This includes monitoring FEMA flood map updates to identify areas in the city susceptible to sea level rise, addressing changes to state and regional sea and bay level rise estimates, and coordinating with adjacent municipalities on flood control improvements as appropriate.

HS-1.2.2. Flood Insurance Rate Maps. Provide to the public, as available, up-to-date Flood Insurance Rate Maps (FIRM) that identify rising sea levels and changing flood conditions.

GOAL HS-2

Ensure a high level of emergency preparedness for natural and human-caused disasters

EMERGENCY PREPAREDNESS

The City seeks to focus on planning and education to prepare and enlist the community in the management of disasters and emergencies.

POLICY HS-2.1: PROMOTE EMERGENCY PREPAREDNESS

Distribute multi-hazard emergency preparedness information for all threats identified in the emergency plan. Information will be provided through Cardiopulmonary Resuscitation (CPR), First Aid and Community Emergency Response Team (CERT) training, lectures and seminars on emergency preparedness, publication of monthly safety articles in the Cupertino Scene, posting of information on the Emergency Preparedness website and coordination of video and printed information at the library.

POLICY HS-2.2: EMERGENCY OPERATIONS AND TRAINING

Ensure ongoing training of identified City staff on their functions/ responsibilities in the EOC and in disaster preparedness, first aid and CPR.

STRATEGIES:

HS-2.2.1: Emergency Operations Center (EOC).

Review options to provide functional and seismic upgrades to the EOC facility at City Hall or explore alternative locations for the EOC.

HS-2.2.2: Employee Training.
Conduct regular exercises and participate in regional exercises to ensure that employees are adequately trained.

POLICY HS-2.3: VOLUNTEER GROUPS

Continue to encourage the ongoing use of volunteer groups to augment emergency services, and clearly define responsibilities during a local emergency.

STRATEGIES:

HS-2.3.1: Cupertino Citizens Corps.
Continue to support the Cupertino Amateur Radio Emergency Services (CARES), Community Emergency Response Team (CERT) and Medical Reserve Corp (MRC) programs to ensure the development of neighborhood based emergency preparedness throughout the City. Encourage ongoing cooperation with CERTs in other cities.

HS-2.3.2: Community Groups.
Continue pre-disaster agreements with appropriate community groups to provide specified post-disaster assistance, through the Emergency Services Coordinator and with the advice of the City Attorney.

HS-2.3.3: American Red Cross.
Continue to implement the American Red Cross agreements under the direction of the Director of Emergency Services during a disaster.

HS-2.3.4: Shelter Providers.
Continue the agreement with designated shelter sites to provide space for emergency supply containers.

HS-2.3.5: Amateur Radio Operators.
Continue to support training and cooperation between the City and Cupertino Amateur Radio Emergency Service (CARES) to prepare for emergency communications needs.

POLICY HS-2.4: EMERGENCY PUBLIC INFORMATION

Maintain an Emergency Public Information program to be used during emergency situations.

STRATEGIES:

HS-2.4.1: Communication Methods.
Use the local TV channel, Cupertino Alert System (CAS), the Internet and other communication methods to transmit information to the citizenry.

HS-2.4.2: Public Information Office.
Activate the Public Information in coordination with the Sheriff and the Fire Department to provide accurate information to the public as needed.

POLICY HS-2.5: DISASTER MEDICAL RESPONSE

Continue to coordinate with the appropriate County agencies and local emergency clinics to ensure preparedness and provide disaster medical response. Coordinate with the CERT members throughout the City to ensure that they are prepared to provide emergency support and first aid at the neighborhood level.

STRATEGY:

HS-2.5.1: Memorandum of Understanding (MOU).

Develop a MOU with local emergency clinics. The County's role and involvement in emergencies should be considered in development of the MOU.

POLICY HS-2.6: MILITARY FACILITIES AND READINESS

Consider the impact of development on neighboring military facilities and maintain military airspace to ensure military readiness.

GOAL HS-3

Protect the community from hazards associated with wildland and urban fires

FIRE SAFETY

The City seeks to provide direction to the Santa Clara County Fire Department (SCCFD) on ways to better protect the community from natural and human-made fire disasters, and implement local policies to improve building and site design.

POLICY HS-3.1: REGIONAL COORDINATION

Coordinate wildland fire prevention efforts with adjacent jurisdictions. Encourage the County and the Midpeninsula Open Space District to implement measures to reduce fire hazards, including putting into effect the fire reduction policies of the County Public Safety Element, continuing efforts in fuel management, and considering the use of "green" fire break uses for open space lands.

POLICY HS-3.2: EARLY PROJECT REVIEW

Involve the Fire Department in the early design stage of all projects requiring public review to assure Fire Department input and modifications as needed.

POLICY HS-3.3: EMERGENCY ACCESS

Ensure adequate emergency access is provided for all new hillside development.

STRATEGIES:

HS-3.3.1: Roadway Design.
Create an all-weather emergency road system to serve rural areas.

HS-3.3.2: Dead-End Street Access.
Allow public use of private roadways during an emergency for hillside subdivisions that have dead-end public streets longer than 1,000 feet or find a secondary means of access.

HS-3.3.3: Hillside Access Routes.
Require new hillside development to have frequent grade breaks in access routes to ensure a timely response from fire personnel.

HS-3.3.4: Hillside Road Upgrades.
Require new hillside development to upgrade existing access roads to meet Fire Code and City standards.

POLICY HS-3.4: PRIVATE RESIDENTIAL ELECTRONIC SECURITY GATES

Discourage the use of private residential electronic security gates that act as a barrier to emergency personnel.

STRATEGIES:

HS-3.4.1: Location.
Require a fence exception for electronic security gates in certain areas.

HS-3.4.2: Access to Gates.
Where electronic security gates are allowed, require the installation of an approved key switch to be accessed by the Fire District.

POLICY HS-3.5: COMMERCIAL AND INDUSTRIAL FIRE PROTECTION GUIDELINES

Coordinate with the Fire Department to develop new guidelines for fire protection for commercial and industrial land uses.

POLICY HS-3.6: FIRE PREVENTION AND EMERGENCY PREPAREDNESS

Promote fire prevention and emergency preparedness through city-initiated public education programs, the government television channel, the Internet, and the Cupertino Scene.

POLICY HS-3.7: MULTI-STORY BUILDINGS

Ensure that adequate fire protection is built into the design of multi-story buildings and require on-site fire suppression materials and equipment.

POLICY HS-3.8: EXTENSION OF WATER SERVICE

Encourage the water companies to extend water service into the hillside and canyon areas and encourage cooperation between water utility companies and the Fire Department in order to keep water systems in pace with growth and firefighting service needs.

GOAL HS-4

Ensure high levels of community safety with police services that meet the community's needs

PUBLIC SAFETY

The City seeks to support public safety through improved police services and better site design.

POLICY HS-4.1: NEIGHBORHOOD AWARENESS PROGRAMS

Continue to support the Neighborhood Watch Program and other similar programs intended to help neighborhoods prevent crime through social interaction.

POLICY HS-4.2: CRIME PREVENTION THROUGH BUILDING AND SITE DESIGN

Consider appropriate design techniques to reduce crime and vandalism when designing public spaces and reviewing development proposals.

STRATEGIES:

HS-4.2.1: Perimeter Roads for Parks. Encircle neighborhood parks with a public road to provide visual accessibility whenever possible.

HS-4.2.2: Development Review. Continue to request County Sheriff review and comment on development applications for security and public safety measures.

POLICY HS-4.3: FISCAL IMPACTS

Recognize fiscal impacts to the County Sheriff and City of Cupertino when approving various land use mixes.

GOAL HS-5
Reduce ricks associated with geologic and seismic hazards

GEOLOGIC AND SEISMIC HAZARDS

POLICY HS-5.1: SEISMIC AND GEOLOGIC REVIEW PROCESS

Evaluate new development proposals within mapped potential hazard zones using a formal seismic/geologic review process. Use **Table HS-3** of this Element to determine the level of review required.

STRATEGIES:

HS-5.1.1: Geotechnical and Structural Analysis.
Require any site with a slope exceeding 10 percent to reference the Landslide Hazard Potential Zone maps of the State of California for all required geotechnical and structural analysis.

HS-5.1.2: Residential Upgrades.
Require that any residential facility, that is being increased more than 50 percent assessed value or physical size, conform to all provisions of the current building code throughout the entire structure. Owners of residential buildings with known structural defects, such as un-reinforced garage openings, "soft first story" construction, unbolted foundations, or inadequate sheer walls are encouraged to take steps to remedy the problem and bring their buildings up to the current building code.

HS-5.1.3: Geologic Review.
Continue to implement and update geologic review procedures for Geologic Reports required by the Municipal Code through the development review process.

POLICY HS-5.2: PUBLIC EDUCATION ON SEISMIC SAFETY

Reinforce the existing public education programs to help residents minimize hazards resulting from earthquakes.

STRATEGIES:

HS-5.2.1: Covenant on Seismic Risk.
Require developers to record a covenant to tell future residents in high-risk areas about the risk and inform them that more information is in City Hall records. This is in addition to the State requirement that information on the geological report is recorded on the face of subdivision maps.

HS-5.2.2: Emergency Preparedness.
Publish and promote emergency preparedness activities and drills. Use the City social media, and the website to provide safety tips that may include identifying and correcting household hazards, knowing how and when to turn off utilities, helping family members protect themselves during and after an earthquake, recommending neighborhood preparation activities, and advising residents to maintain an emergency supply kit containing first-aid supplies, food, drinking water and battery operated radios and flashlights.

HS-5.2.3: Neighborhood Response Groups.
Encourage participation in Community Emergency Response Team (CERT) training. Train neighborhood groups to care for themselves during disasters. Actively assist in neighborhood drills and safety exercises to increase participation and build community support.

HS-5.2.4: Dependent Populations.
As part of community-wide efforts, actively cooperate with State agencies that oversee facilities for persons with disabilities and those with access and functional needs, to ensure that such facilities conform to all health and safety requirements, including emergency planning, training, exercises and employee education.

HS-5.2.5: Foreign Language Emergency Information.
Obtain translated emergency preparedness materials and make them available to appropriate foreign language populations.

GOAL HS-6

Protect people and property from the risks associated with hazardous materials and exposure to electromagnetic fields

HAZARDOUS MATERIALS

The City is committed to protecting its citizens from hazardous materials through improved disposal practices, better site design and more public education.

POLICY HS-6.1: HAZARDOUS MATERIALS STORAGE AND DISPOSAL

Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.

POLICY HS-6.2: PROXIMITY OF RESIDENTS TO HAZARDOUS MATERIALS

Assess future residents' exposure to hazardous materials when new residential development or sensitive populations are proposed in existing industrial and manufacturing areas. Do not allow residential development or sensitive populations if such hazardous conditions cannot be mitigated to an acceptable level of risk.

POLICY HS-6.3: ELECTROMAGNETIC FIELDS (EMF)

Ensure that projects meet Federal and State standards for EMF emissions through development review.

POLICY HS-6.4: EDUCATIONAL PROGRAMS

Continue to encourage residents and businesses to use non- and less-hazardous products, especially less toxic pest control products, to slow the generation of new reduce hazardous waste requiring disposal through the county-wide program.

POLICY HS-6.5: HAZARDOUS WASTE DISPOSALS

Continue to support and facilitate for residences and businesses a convenient opportunity to properly dispose of hazardous waste.

STRATEGIES:

HS-6.5.1: Partner on Hazardous Waste Collection and Disposal.
Continue to explore efficient, economical and convenient ways to offer Household Hazardous Waste collection for residents in partnership with the Solid Waste contractor or the County.

HS-6.5.2: Educational Materials.
Publish educational materials about the program in the Cupertino Scene, City website, and brochures that are distributed throughout the community.

GOAL HS-7

Protect people and property from risks associated with floods

FLOODING

The City seeks to ensure community protection from floods through the design of projects, municipal operations and public education.

POLICY HS-7.1: EVACUATION MAP

Prepare and update periodically an evacuation map for the flood hazard areas and distribute it to the general public.

POLICY HS-7.2: EMERGENCY RESPONSE TO DAM FAILURE

Ensure that Cupertino is prepared to respond to a potential dam failure.

STRATEGIES:

HS-7.2.1: Emergency and Evacuation Plan.
Maintain and update a Stevens Creek Dam Failure Plan, including alert, warning and notification systems and appropriate signage.

HS-7.2.2: Inter-agency Cooperation.
Continue to coordinate dam-related evacuation plans and alert/notification systems with the City of Sunnyvale, the Santa Clara Valley Water District and Santa Clara County to ensure that traffic management between the agencies facilitates life safety. Also work with other neighboring cities to enhance communication and coordination during a dam-related emergency.

POLICY HS-7.3: EXISTING NON-RESIDENTIAL USES IN THE FLOOD PLAIN

Allow commercial and recreational uses that are now exclusively within the flood plain to remain in their present use or to be used for agriculture, provided it doesn't conflict with Federal, State and regional requirements.

POLICY HS-7.4: CONSTRUCTION IN FLOOD PLAINS

Continue to implement land use, zoning and building code regulations limiting new construction in the already urbanized flood hazard areas recognized by the Federal Flood Insurance Administrator.

STRATEGIES:

HS-7.4.1: Dwellings in Flood Plains.
Discourage new residential development in regulated flood plains. Regulate all types of redevelopment in natural flood plains. This includes discouraging fill materials and obstructions that may increase flood potential or modify the natural riparian corridors.

HS-7.4.2: Description of Flood Zone Regulation.
Continue to maintain and update a map of potential flood hazard areas and a description of flood zone regulations on the City's website.

HS-7.4.3: National Flood Insurance Program Community Rating System.
Continue to participate in the National Flood Insurance Program (NFIP) Community Rating System (CRS).

POLICY HS-7.5: HILLSIDE GRADING

Restrict the extent and timing of hillside grading operations to April through October except as otherwise allowed by the City. Require performance bonds during the remaining time to guarantee the repair of any erosion damage. Require planting of graded slopes as soon as practical after grading is complete.

POLICY HS-7.6: STABILITY OF EXISTING WATER STORAGE FACILITIES

Assure the structural integrity of water storage facilities.

STRATEGY:

HS-7.6.1: Coordination with other Agencies.
Work closely with the San Jose Water Company and owners of other water storage facilities to develop and implement a program to monitor the stability of all existing water storage facilities and related improvements, such as: distribution lines, connections and other system-components.

GOAL HS-8

Minimize noise impacts on the community and maintain a compatible noise environment for existing and future land use

NOISE

The City seeks to ensure that the community continues to enjoy a high quality of life through reduce noise pollution, effective project design and noise management operations.

POLICY HS-8.1: LAND USE DECISION EVALUATION

Use the Land Use Compatibility for Community Noise Environments chart, the Future Noise Contour Map (see Figure D-1 in Appendix D) and the City Municipal Code to evaluate land use decisions.

POLICY HS-8.2: BUILDING AND SITE DESIGN

Minimize noise impacts through appropriate building and site design.

STRATEGIES:

HS-8.2.1: Commercial Delivery Areas. Locate delivery areas for new commercial and industrial developments away from existing or planned homes.

HS-8.2.2: Noise Control Techniques. Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.

HS-8.2.3: Sound Wall Requirements. Exercise discretion in requiring sound walls to be sure that all other measures of noise control have been explored and that the sound wall blends with the neighborhood. Sound walls should be designed and landscaped to fit into the environment.

POLICY HS-8.3: CONSTRUCTION AND MAINTENANCE ACTIVITIES

Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.

POLICY HS-8.4: FREEWAY DESIGN AND NEIGHBORHOOD NOISE

Ensure that roads and development along Highway 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise.

POLICY HS-8.5: NEIGHBORHOODS

Review residents' needs for convenience and safety and prioritize them over the convenient movement of commute or through traffic where practical.

POLICY HS-8.6: TRAFFIC CALMING SOLUTIONS TO STREET NOISE

Evaluate solutions to discourage through traffic in neighborhoods through enhanced paving and modified street design.

STRATEGY:

HS-8.6.1: Local Improvement.
Modify street design to minimize noise impact to neighbors.

POLICY HS-8.7: REDUCTION OF NOISE FROM TRUCKING OPERATIONS

Work to carry out noise mitigation measures to diminish noise along Foothill and Stevens Creek Boulevards from the quarry and cement plant trucking operations. These measures include regulation of truck speed, the volume of truck activity, and trucking activity hours to avoid late evening and early morning. Alternatives to truck transport, specifically rail, are strongly encouraged when feasible.

STRATEGIES:

HS-8.7.1: Restrictions in the County's Use Permit.
Coordinate with the County to restrict the number of trucks, their speed and noise levels along Foothill and Stevens Creek Boulevards, to the extent allowed in the Use Permit. Ensure that restrictions are monitored and enforced by the County.

HS-8.7.2: Road Improvements to Reduce Truck Impacts.
Consider road improvements such as medians, landscaping, noise attenuating asphalt, and other methods to reduce quarry truck impacts.