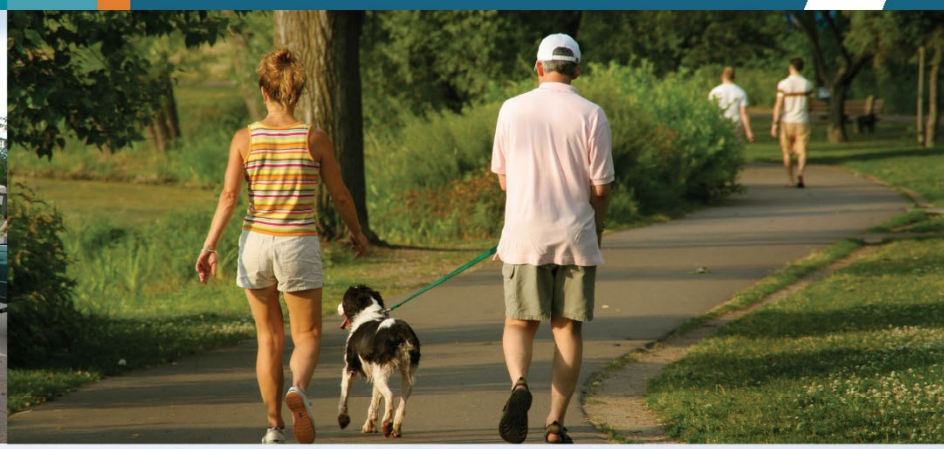
7 health and safety



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.

CONTENTS:

~~CONTEXT~~OVERVIEW

PURPOSE AND CONTENT

The Health and Safety Element includes the City's goals, policies, and strategies to minimize health and safety hazards and increase resilience in Cupertino. Section 65302(g) of the California Government Code requires that the Health and Safety Element contain background information and policies to address multiple natural hazards, an analysis of vulnerabilities from climate change, policies to improve climate change resilience, and an assessment of residential areas with evacuation constraints. The health and safety issues in Cupertino include the following:

- Emergency preparedness and response
- Fire hazards
- Hazardous waste and materials
- Electromagnetic fields
- Seismic and geologic hazards
- Flood and inundation hazards
- Climate change resilience
- Noise

This element is supported by the Health and Safety Element Background Report (**Appendix H**), which provides detailed information for each of the health and safety issues.

RELATIONSHIP TO OTHER LOCAL PLANS AND REGULATIONS

Cupertino General Plan's Health and Safety Element is one of several plans that address community safety and related topics. Other City plans include the Santa Clara County Multi-Jurisdictional Hazard Mitigation Plan (Hazard Mitigation Plan), the Santa Clara County Community Wildfire Protection Plan, the Cupertino Climate Action Plan, and various local regulations. The Health and Safety Element is consistent with these other plans and integrates them as appropriate to ensure that the City has a unified strategy to address public safety and resilience issues.

GENERAL PLAN ELEMENTS

The Health and Safety Element provides policy direction and safety improvements that complement the intent and policies of other General Plan elements. How land uses are determined in areas prone to natural hazards, what regulations limit development in these areas, and how hazards are mitigated for existing development are all issues that tie the elements together. For instance, the Recreation, Parks, and Community Services Element must consider how hazards will affect the park and recreation infrastructure and facilities in Cupertino but also recognize that parks can provide strategies to reduce flood risks throughout the city. The Housing Element is also closely tied to the Health and Safety Element. Future potential development in the city must be protected from hazards and be able to adapt to climate change hazards to ensure homes and the people living in them remain safe. Health and Safety

Element policies, especially those concerning evacuation routes and critical facilities, must also be consistent with those of the Mobility Element. Interstate 280 and State Route 85 are Cupertino's primary evacuation routes, supported by routes designated as arterials in the City's Mobility Element.

SANTA CLARA COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

The 2023 Multi-Jurisdictional Hazard Mitigation Plan assesses the risk of hazards and vulnerabilities from natural and human-caused hazards, including risk to people and facilities, and identifies short-term (five-year) mitigation actions to reduce or eliminate hazard risks. The Hazard Mitigation Plan includes a dedicated annex for the City of Cupertino, which discusses Cupertino's characteristics and history, development trends, hazard mitigation capabilities, integration with other hazard mitigation planning efforts, and vulnerabilities of specific facilities and infrastructure. Santa Clara County led the preparation of the Hazard Mitigation Plan in collaboration with the City and other local agencies and special districts, in accordance with the federal Disaster Mitigation Act of 2000 and the Federal Emergency Management Agency's hazard mitigation assistance guidance. The City Council adopted the Cupertino annex on October 1, 2024. The current Hazard Mitigation Plan, including Cupertino's annex, as certified by the Federal Emergency Management Agency, is incorporated into this Health and Safety Element by reference, as permitted by California Government Code Section 65302.6. It is available online at: www.cupertino.org/emergencyplans.

SANTA CLARA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

The 2023 Santa Clara County Community Wildfire Protection Plan is a plan is to reduce fire hazards through increased information and education about wildfires, hazardous fuels reduction, actions to reduce structure ignitability, and other recommendations to assist emergency preparedness and fire-suppression efforts. The Santa Clara County Fire Department (Fire Department) prepared and published this plan, in collaboration with the Community Wildfire Protection Plan Core Team, made up of representatives of Santa Clara County organizations, including the City. The Santa Clara County Community Wildfire Protection Plan complements local agreements and existing plans for wildfire protection to coordinate efforts in determining appropriate fire management actions. The Community Wildfire Protection Plan is available online at: www.cupertino.org/emergencyplans.

CITY OF CUPERTINO CLIMATE ACTION PLAN

On August 16, 2022, the Cupertino City Council adopted the City's Climate Action Plan 2.0 to address climate change challenges. Cupertino's goal is to reduce the City's greenhouse gas emissions to net zero by the year 2040. The Climate Action Plan describes a series of community-wide ~~and municipal~~ measures and actions that will aid the City in reducing greenhouse gas emissions to meet community goals. The Climate Action Plan includes topics such as energy, transportation, waste, water, plants and animals, and natural systems, as well as an adaptation chapter that is intended to help residents prepare for extreme weather events and the impacts of a changing climate. The Climate Action Plan is viewed as a strategic framework that will be re-evaluated regularly. The Climate Action Plan has targeted communitywide carbon neutrality by 2040 in line with the emergency climate declaration made by the City Council in 2018 and in support of state and international climate goals. The Climate Action Plan 2.0 is available online at: https://www.cupertino.gov/ ~~Your-City/Divisions/Environment-Sustainability/~~Climate-Action

CLIMATE CHANGE VULNERABILITY

Changes to the global climate system are expected to affect future occurrences of natural hazards in and around Cupertino. Many hazards are projected to become more frequent and intense in coming years and decades, and in some cases, these trends have already begun. According to California's *Fourth Climate Change Assessment,* Cupertino can expect to experience various changes from climate-related hazard events.

What is vulnerability?

Vulnerability is the degree to which natural, built, and human systems are susceptible to harm from exposure to stresses associated with environmental and social change and from the absence of a capacity to adapt.

Source: California Governor's Office of Emergency Services. 2022. *California Adaptation Planning Guide*. https://www.caloes.ca.gov/climate.

Climate change is expected to lead to an increase in wildfires in the surrounding area and across Santa Clara County due to hotter and drier conditions. Across the region, more frequent and intense wildfires may also create poor air quality for Cupertino. Warmer temperatures are projected to cause an increase in extreme heat events. The number of extreme heat days, defined in Cupertino as a day when the high temperature is at least 93.2 degrees Fahrenheit (°F), is expected to rise from a historical annual average of 5 to 14 days by the middle of the century (2035 to 2064), and an average of 24 days by the end of the century (2070 to 2099).

Both droughts and floods are expected to become more frequent as rainfall is likely to occur in fewer, more intense storms. Climate change is expected to cause an increase in heavy rainfall, which may also contribute to an increased risk of landslides in the hills around Cupertino. Climate change can increase infection rates from various diseases because many of the animals that carry diseases are more active during warmer weather. Warmer temperatures earlier in the spring and later in the winter can cause these animals to be active for extended periods, increasing the time these diseases can be transmitted.

VULNERABILITY ASSESSMENT

Under California law (California Government Code Section 65302[g]), the Health and Safety Element is required to include a vulnerability assessment of how people, buildings, infrastructure, and other key community assets may be affected by climate change. The City of Cupertino conducted a Climate Change Vulnerability Assessment as part of preparation of the Safety Element, which assessed how eight different climate-related hazards (air quality and smoke, drought, extreme heat, flooding, human health hazards, landslides, severe storms, and wildfire) may affect 45 different population groups and community assets. Each population or asset received a score of low, medium, or high vulnerability for each climate-related hazard. Cupertino's Vulnerability Assessment is included in the Health and Safety Element Background Report, **Appendix H** of the City's General Plan.

The Climate Change Vulnerability Assessment found that Cupertino's populations and assets are most vulnerable to flooding, extreme heat, and wildfire. Overall, residents in Cupertino tend to be most vulnerable to extreme heat, human health hazards, and flooding, which directly affect health outcomes. The most vulnerable population groups include those with chronic illness and/or disabilities, seniors living alone, households in poverty, and persons experiencing homelessness. Infrastructure and key services are also highly vulnerable, especially energy delivery and communication infrastructure, the transportation network and public transit services, and water and wastewater services, which can be disrupted by flooding that causes roadways to become impassable, extreme heat events that strain electricity transmission lines, and severe storms that cause Public Safety Power Shutoffs. To increase community resilience and help lower vulnerability, the Health and Safety Element includes goals, policies, and strategies, several of which are particular to the populations and assets identified to be highly vulnerable in the Vulnerability Assessment.

PUBLIC SAFETY ISSUES

The City's commitment to public safety encompasses two broad areas of responsibility: (1) provide public safety services, including preparing a response for emergencies such as natural disasters or structure fires; and (2) plan for a safe environment in which the public is not exposed to unnecessary risks to life and property. There are multiple areas in which the City develops policies and strategies to address Public Safety Issues as further described below.

EMERGENCY PREPAREDNESS AND RESPONSE

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 other~~s~~ events such as infrastructure disruptions, security incidents, and~~or~~ hazardous spills.

Emergency preparedness includes activities that are undertaken before an emergency occurs so there is an effective and coordinated response. Emergency response accounts for actions taken after an emergency or disaster to minimize the negative effects, such as evacuation, emergency communication,

and coordinating first responders. Emergency preparedness and response 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.

LOCAL EMERGENCY RESPONSE

The City of Cupertino's Office of Emergency Management, Santa Clara County Sheriff's Office West Valley Patrol Division, and Santa Clara County Fire Department conduct emergency preparedness activities in Cupertino.

City of Cupertino's Office of Emergency Management

The City's Office of Emergency Management (OEM) works to mitigate risks, to prepare, respond, and recover from emergencies affecting the city. OEM works with the Santa Clara County Sheriff's Office and Santa Clara County Fire Department to conduct emergency response activities in Cupertino.

OEM coordinates several volunteer programs vital to the community's preparedness and resilience. These programs include the Cupertino Citizen Corps, Block Leaders, and Neighborhood Watch. These initiatives engage residents in proactive measures to safeguard their neighborhoods, ensuring a robust community response in the face of emergencies. The OEM conducts regular community training sessions, equipping residents with essential disaster preparedness and response skills. For instance, the Cupertino Citizen Corps offers Community Emergency Response Team (CERT) training courses, which prepare volunteers to assist during emergencies and provide CPR and first aid certification. The Block Leaders program also trains residents to organize and support their immediate community, fostering a network of informed and prepared individuals.

Citywide exercises are essential for the OEM, simulating disaster scenarios to help officials, first responders, and volunteers practice their response strategies. These exercises ensure everyone knows their roles and can act promptly during emergencies. The OEM collaborates closely with City departments and public safety agencies to provide a unified and coordinated response.

The OEM also focuses on planning and protocol development and drafting and updating emergency response plans that align with state and federal guidelines. These plans cover various hazards, including earthquakes, floods, and wildfires, ensuring swift and effective recovery after an emergency. The collaborative efforts with City departments and public safety agencies ensure comprehensive coverage and efficiency.

By fostering a culture of preparedness and community involvement and working closely with City departments and public safety agencies, the OEM plays a crucial role in safeguarding Cupertino's residents, infrastructure, and services from potential hazards.

Santa Clara County Sheriff's Office

The Santa Clara County Sheriff's Office, specifically the West Valley Patrol Division of the Santa Clara County Sheriff's Office, provides law enforcement services to the City of Cupertino in addition to the cities of

Saratoga and Los Altos Hills, and the western unincorporated county areas from Summit Road to Moffett Field. The West Valley Patrol Division provides progressive law enforcement services and works towards maintaining healthy community partnerships.

The Sheriff's Office is integral to Cupertino's emergency response framework. In natural disasters, accidents, or other emergencies, the West Valley Division collaborates with the Office of Emergency Management and the Fire Department to coordinate evacuations and manage emergencies to deliver a swift, coordinated response.

The Santa Clara County Sheriff's Office strives to maintain high standards for their response times to ensure that critical situations are addressed promptly, enhancing the safety and security of the community, as follows:

- **Priority 1 incidents**, which include emergencies requiring immediate response, the expected response time is within five minutes.
- **Priority 2 incidents**, which involve urgent but not life-threatening situations, have a target response time of under nine minutes.
- **For Priority 3 incidents**, which are non-emergency calls, the Sheriff's Office aims to respond within 20 minutes.

The Sheriff's Office also participates in public safety education programs, informing residents about crime prevention, personal safety, and emergency preparedness. Deputies routinely participate in community events across all cities in this endeavor.

~~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.~~

Santa Clara County Fire Department

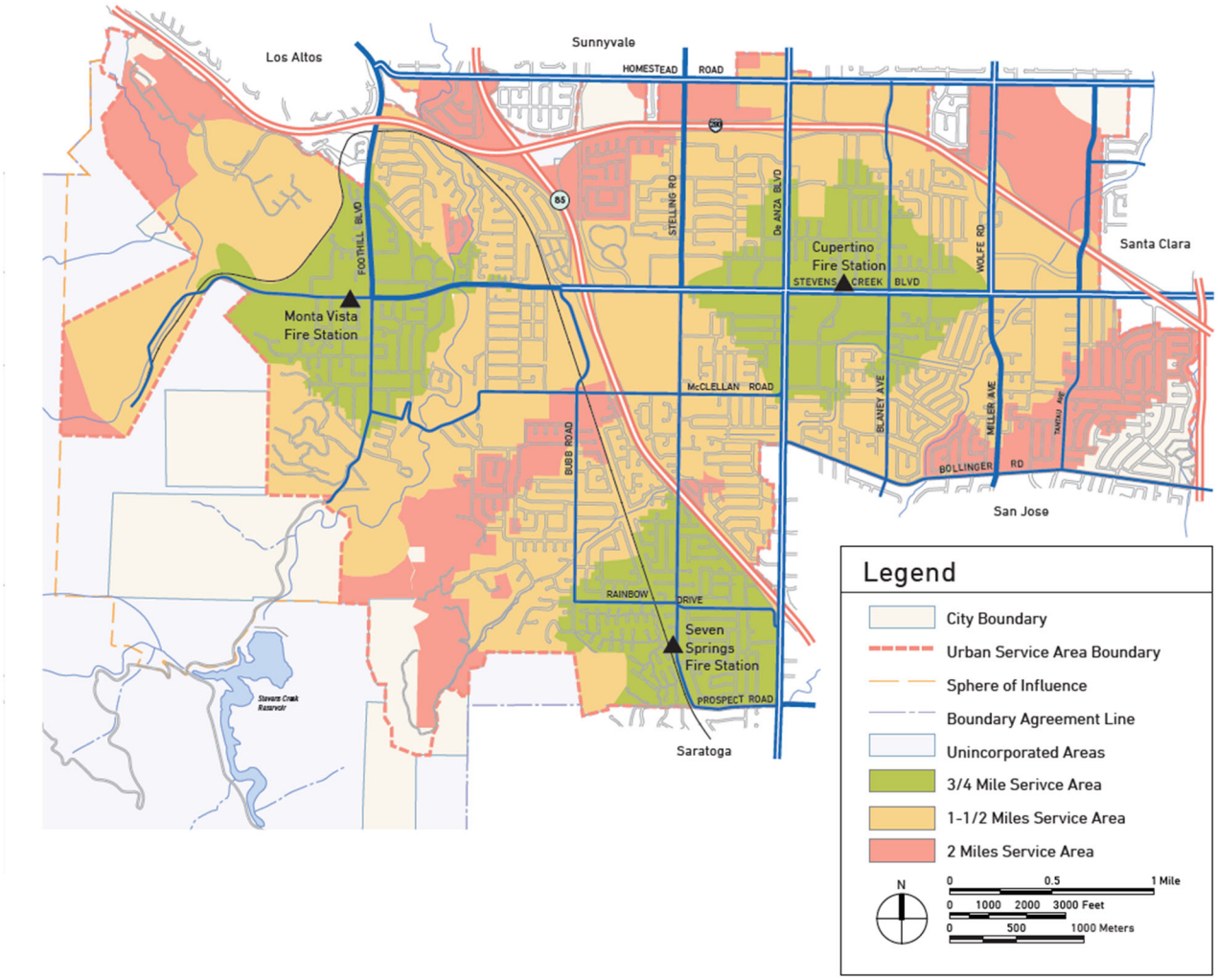
Firefighting and emergency medical services are provided to Cupertino by the Santa Clara County Fire Department through three fire stations:

- **Cupertino Fire Station** at 20215 Stevens Creek Boulevard
- **Monta Vista Fire Station** at 22620 Stevens Creek Boulevard
- **Seven Springs Fire Station** at 21000 Seven Springs Parkway

Figure HS-1 shows the location of fire stations and their service areas in Cupertino.

~~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 SCCFDs' 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.~~

FIGURE HS-1
FIRE SERVICE



Santa Clara County Fire Department is a full service, all-risk, "all hazard" fire department that provides similar services to six other West Valley cities and adjacent unincorporated county areas. The Santa Clara County Fire Department is an internationally accredited agency through the Commission on Fire Accreditation International; therefore, frequently monitors and reviews multiple performance metrics to assure prompt and efficient delivery of firefighting resources to all emergencies based on risk. These metrics are compiled into the Department's Community Risk Assessment -Standards of Cover document available on the Santa Clara County Fire Department website.

The current performance benchmark is when fire apparatus arrives on scene to an emergency incident is:

- Structure fire incidents, the first unit should arrive within 7 minutes, 40 seconds, 90 percent of the time.
- Emergency medical incidents and non-structure fires, the first unit should arrive within 8 minutes, 40 seconds, 90 percent of the time.

These times are from when the incident is acknowledged at the dispatch center, a unit(s) are dispatched, responds, and arrives on scene.

Increases in population density will lead to an increase in service demand and potentially traffic congestion. This will impact the Fire Department's critical response times, and the Department may need to adjust or expand staffing levels and equipment in areas of high service demand in the future.

The Fire Department's Fire Prevention Division provides comprehensive fire/life safety plan review for land development, new building construction, interior remodel projects, fire suppression, and fire alarm systems. -The Division's staff also perform construction inspections to ensure that completed projects conform to State and local fire safety regulations. In addition to conducting construction-related plan reviews and inspections, the Santa Clara County Fire Department provides annual occupancy and special event inspections, Defensible Space Inspections, and also offers community educational programs, such as those on Community Emergency Response Team (CERT) training, cardiopulmonary resuscitation (CPR), and first aid certification.

The Fire Department also provides first response Advanced Life Support paramedic level services to Cupertino. through an exclusive operating area agreement between the County of Santa Clara and Rural/Metro of California, Inc., d/b/a American Medical Response.

The Department maintains a Santa Clara County Emergency Medical Service Multi-Casualty Incident supply trailer for large-scale emergency medical incidents and is a participant in Master Mutual Aid in the event of major disasters. In the event of a wildfire or an emergency, the Fire Department can issue evacuation warnings or evacuation orders in coordination with the Santa Clara County Sheriff's Office and Cupertino's Office of Emergency Management.

EMERGENCY PLANNING

The State of California requires all state, regional, and local agencies and utilities, including the Pacific Gas and Electric Company (PG&E) and Santa Clara Valley Water District, to maintain their own emergency plans relating to the infrastructure they install and maintain. The City of Cupertino's Office of Emergency Management (OEM) coordinates citywide emergency planning and protocol development.

~~CUPERTINO EMERGENCY PLAN~~

Additionally, State law requires cities to prepare an emergency plan ~~in order to~~to effectively respond to natural or human-caused disasters that threaten lives, the natural environment, or property. In the event of an emergency, the City would implement the Cupertino Emergency Operations Plan and rely on State, regional, and local agencies to implement their emergency operations plans, with the City supporting as needed.

The Cupertino Emergency Operations Plan establishes an organizational framework to enable the City to manage its emergency response activities and to coordinate with County, State, and f~~F~~ederal agencies. The Emergency Operations 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 Operations Plan, as well as plans and Standard Operating Procedures ~~(SOPs)~~ of contract agencies and special districts. The City reviews the Emergency Operations Plan annually and conducts periodic emergency disaster drills to ensure the plan is effective.

When an incident occurs anywhere in Cupertino, the Santa Clara County Sheriff's Office and/or the Santa Clara County Fire Department will be the first to arrive at the scene, where they will implement the incident command system (ICS) and determine which agencies and resources need to be involved. Support personnel, such as City staff, special districts, and volunteer groups, are trained to perform specific functions in ICS and the Emergency Operations Center.

The City maintains the Cupertino Alert, Warning, and Notification Program, which provides critical alerts and warnings to the public while sharing information among City departments and partner agencies before, during, and after an emergency. The Alert, Warning, and Notification Program is designed to help the City's departments effectively coordinate information sharing and provide alerts, warnings and notification to the public before, during, and after any emergency or situation.

To reach as many people as possible with crucial information, the City's emergency alert, warning, and notification plan includes several information methods, such as the Emergency Alert and Warning System (AlertSCC, Genasys Protect), Integrated Public Alert and Warning System (IPAWS), Cupertino.org, the City Channel (TV), Radio Cupertino, and social media sites such as Nextdoor, Facebook and X. AlertSCC is capable of notifying anyone who lives or works in Cupertino that is impacted by, or is in danger of being impacted by, an emergency. Alerts are distributed through AlertSCC via voice or text

messages to cell phones, home phones, personal digital assistants, laptops, desktop computers, and Teletypewriter/Telecommunications Devices for the Deaf (TTY/TDD) devices for the hearing impaired. IPAWS, FEMA's national alert system, is an online tool enabling jurisdictions to send emergency alerts to the public. It enables emergency officials to issue effective warnings during serious emergencies using the Emergency Alert System, Wireless Emergency Alerts, and the National Oceanic and Atmospheric Administration Weather Radio. The City also uses volunteers to disseminate public information about extreme weather events through an outreach program called Raising Awareness of Community Hazards.

EMERGENCY OPERATIONS CENTER

The City's Emergency Operations Center is located on the first floor of City Hall, with an alternative location in the Service Center on Mary Avenue. The staffing and duties of the Emergency Operations Center are actively managed through the City's Emergency Operations Plan.~~The EOC can be fully functional within 30 minutes of activation for a Level 3 activation on a work day, to up to multiple hours for a Level 1 activation on a weekend.~~ 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 City's Emergency Operations 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 Emergency Operations CenterEOC.~~ It should be noted that due to structural deficiencies at the existing City Hall location, there may be additional physical and seismic improvements required to City Hall building to ensure that it can continue to meet the requirements of an Emergency Operations Center.

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, the City, and County d~~D~~epartments.

DISASTER SERVICE WORKERS AND OTHER VOLUNTEERS

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

Volunteer groups also play an important role in the City's Emergency Operations 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 Medical Reserve Corps) continue to receive appropriate training and equipment to rapidly respond throughout the ~~C~~city and augment professional first

responders. Unregistered and untrained volunteers may be utilized and trained, as needed during a disaster.

EMERGENCY EVACUATION

With advanced warning, evacuation can effectively reduce injury and loss of life during a catastrophic event. Emergency evacuations can be triggered by a number of hazard events, especially wildfire and flooding, with the main goal of providing information to support residents and employees leaving a hazardous area in an orderly fashion. As shown in **Figure HS-2**, primary emergency access and evacuation routes include Interstate 280, which intersects the city from the northwest to the east along the northern portion of the city, State Route 85, which intersects the city from the north to southeast through the central portion of the city, and other local roadways that connect to these primary evacuation routes. It is important to note that the recommended evacuation routes in any given situation will depend on the specifics of the emergency.

The Santa Clara County Sheriff's Department manages evacuation events in Cupertino in coordination with the City's Emergency Manager and Santa Clara County Fire Department. During an evacuation event the City and County Sheriff's Department use the online Genasys Protect platform to identify evacuation zones and send out notifications to residents in those zones with evacuation warnings and/or orders. Evacuation orders and warnings are also sent out through AlertSCC emergency notification platform. There are 34 contiguous evacuation zones in the city. Maps of each zone are available through the City's website: www.cupertino.gov/evacuation.

California Government Code Section 65302(g)(5) requires cities to identify evacuation constrained residential parcels in hazard areas that do not have at least two emergency evacuation routes. Nearly all parcels in the city are in at least one hazard zone. **Figure HS-3** shows residential parcels with evacuation constraints. This includes residential parcels located on a single access road and parcels in cul-de-sac neighborhoods with 10 parcels or more. As shown on **Figure HS-3**, evacuation constrained residential parcels in the western portion of Cupertino are also within Fire Hazard Severity Zones. The lack of multiple emergency access points limits roadway access for these properties, which may create difficulties if there is a need to evacuate.

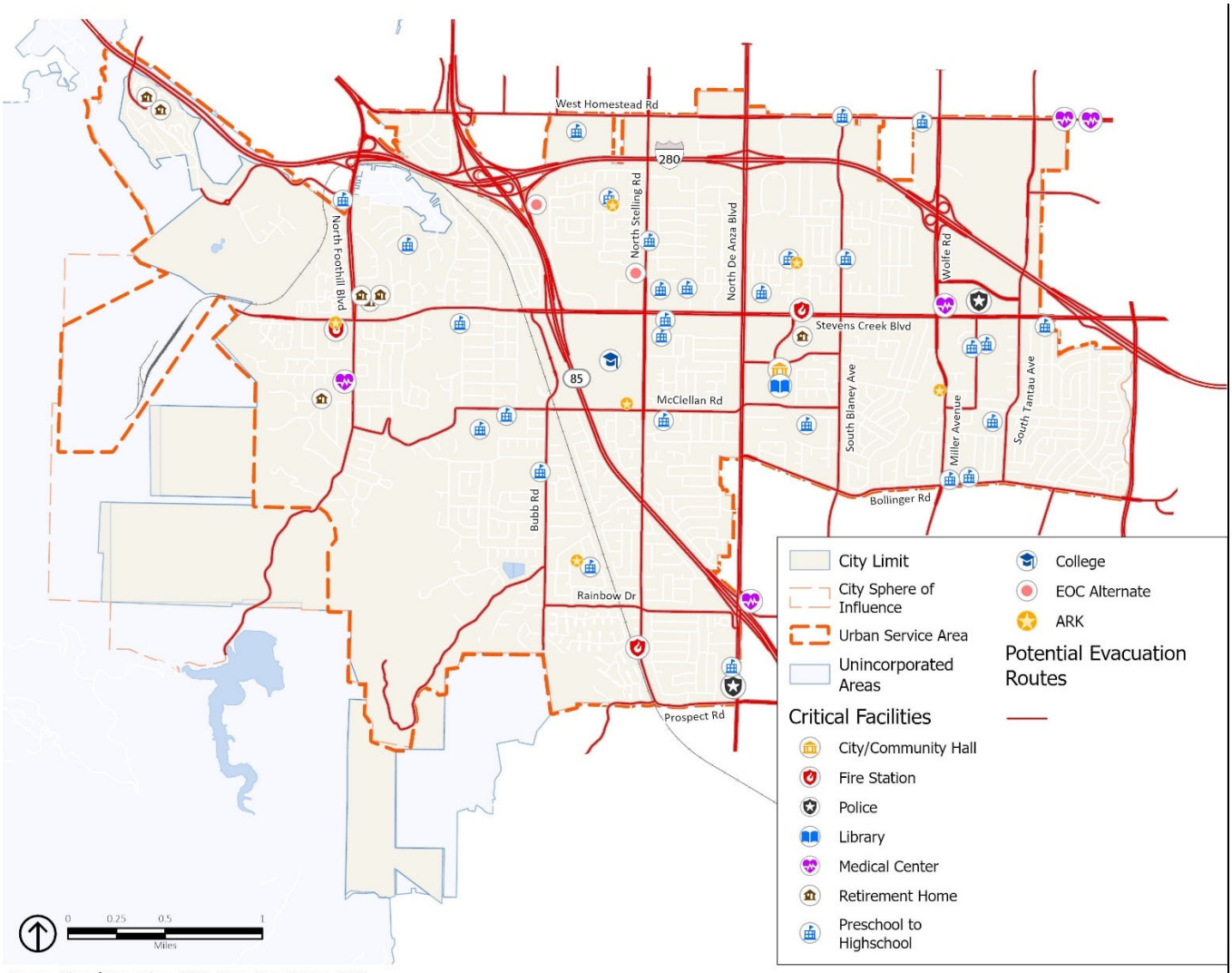
California Government Code Section 65302.15 requires Safety Elements to identify evacuation routes and their capacity, safety, and viability and evacuation locations under a range of emergency scenarios. In coordination with the Santa Clara County Sheriff's Office and Santa Clara County Fire Department, the City conducted an Evacuation Route Capacity Assessment in October 2025 in compliance with Government Code Section 65302.15. The assessment evaluates the capacity, safety, and viability of evacuation routes and locations under three wildfire evacuation scenarios, assuming that evacuations would occur in the western portions of Cupertino:

- **Scenario A:** A wildfire evacuation in the Fall at 2:00pm and all roadways would be open.

- **Scenario B:** A wildfire were to occur after an earthquake and evacuation would occur in the Summer at 6:00pm with road closures.
- **Scenario C:** A wildfire were to occur after an earthquake and evacuation would occur in the Fall at 2:00pm with road closures.

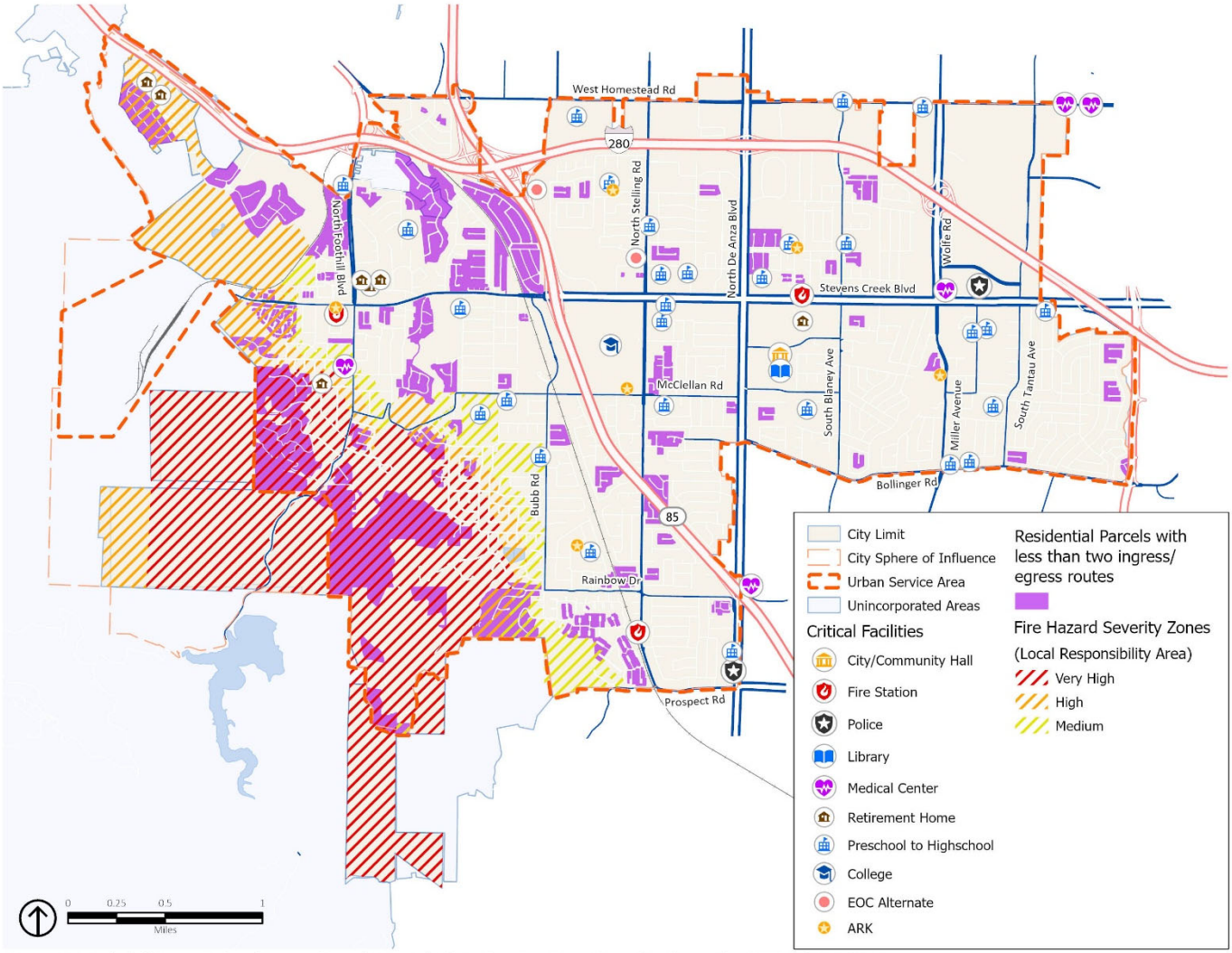
Based on these three scenarios, the assessment defines the evacuation area, evacuation routes, and estimates vehicle trips. The assessment found that each scenario would have varying capacity and viability constraints due to the number of evacuees, type of evacuees, and potential road closures. It is important to note that emergency scenarios are often unpredictable, and it is anticipated that evacuees would vacate at a rate that closely resembles a bell curve from the time an evacuation order is issued. The ~~**General Plan Appendix I** provides additional details about the~~ Evacuation Route Capacity Assessment is available for review on the City's website.~~, including the analysis methods and results.~~

FIGURE HS-2
POTENTIAL EVACUATION ROUTES



Source: City of Cupertino, 2023; OpenStreetMaps, 2023

FIGURE HS-3
EVACUATION CONSTRAINED RESIDENTIAL AREAS



Source: US Geological Survey; National Aeronautics and Space Administration: OpenStreetMaps; City of Cupertino, 2023; Cal FIRE, 2015

FIRE~~SAFETY~~ HAZARDS

Fire hazards include wildfires and urban fires. The combination of complex terrain, climate, vegetation, and development patterns contribute to an elevated risk of wildfire. Historically, the fire season extended from early summer through late fall of each year during the hotter, drier months, although it is increasingly a hazard that can occur year-round. Fire conditions arise from a combination of high temperatures, low moisture content in the air and plant matter, an accumulation of vegetation, and high winds.

Two types of fires are of concern to Cupertino: wildfires and structural fires.

WILDFIRES

Wildfires occur on mountains, hillsides, and grasslands. Fuel, weather, and topography are primary factors that affect how wildland fires spread. In and around Cupertino, grassland and woodland habitat provide highly flammable fuel that is conducive to wildfires. Due to Cupertino's geographic~~al~~ 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. These areas include State Responsibility Area (SRA) lands west of the city, such as Rancho San Antonio Open Space, Picchetti Ranch Open Space, Saratoga Creek County Park, and Sanborn County Park, as well as Local Responsibility Area (LRA) lands, including McClellan Ranch Preserve, Stevens Creek County Park, Fremont Older Open Space, residential neighborhoods along the western hillsides of the city, and the hillsides of Saratoga.

There is limited information on historic fires in the Cupertino area. However, there is no recorded history of wildfires within the city. The closest known wildfire was the Stevens Fire which occurred on August 30, 2007. This wildfire burned 151 acres in the dry brush-covered hills near Stevens Creek Canyon southwest of Cupertino.

Changing climate conditions are expected to increase the fire risk in and around Cupertino. For instance, warmer temperatures brought on by climate change can exacerbate drought conditions and droughts can kill or dry out plants, creating more fuel for wildfires. Increased winds can result in more erratic fire behavior, making fires

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates Fire Hazard Severity Zones, which may be designated Very High, High, or Moderate. Several factors are considered, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates Fire Hazard Severity Zones in two types of areas depending on which level of government is financially responsible for fire protection.

Local Responsibility Areas: Incorporated communities are financially responsible for wildfire protection.

State Responsibility Areas: CAL FIRE and contracted counties are financially responsible for wildfire protection.

harder to contain. Warmer temperatures are also expected to occur later in the year, extending the wildfire season, which is likely to begin earlier in the year and extend later than it has historically.

FIRE HAZARD SEVERITY ZONE

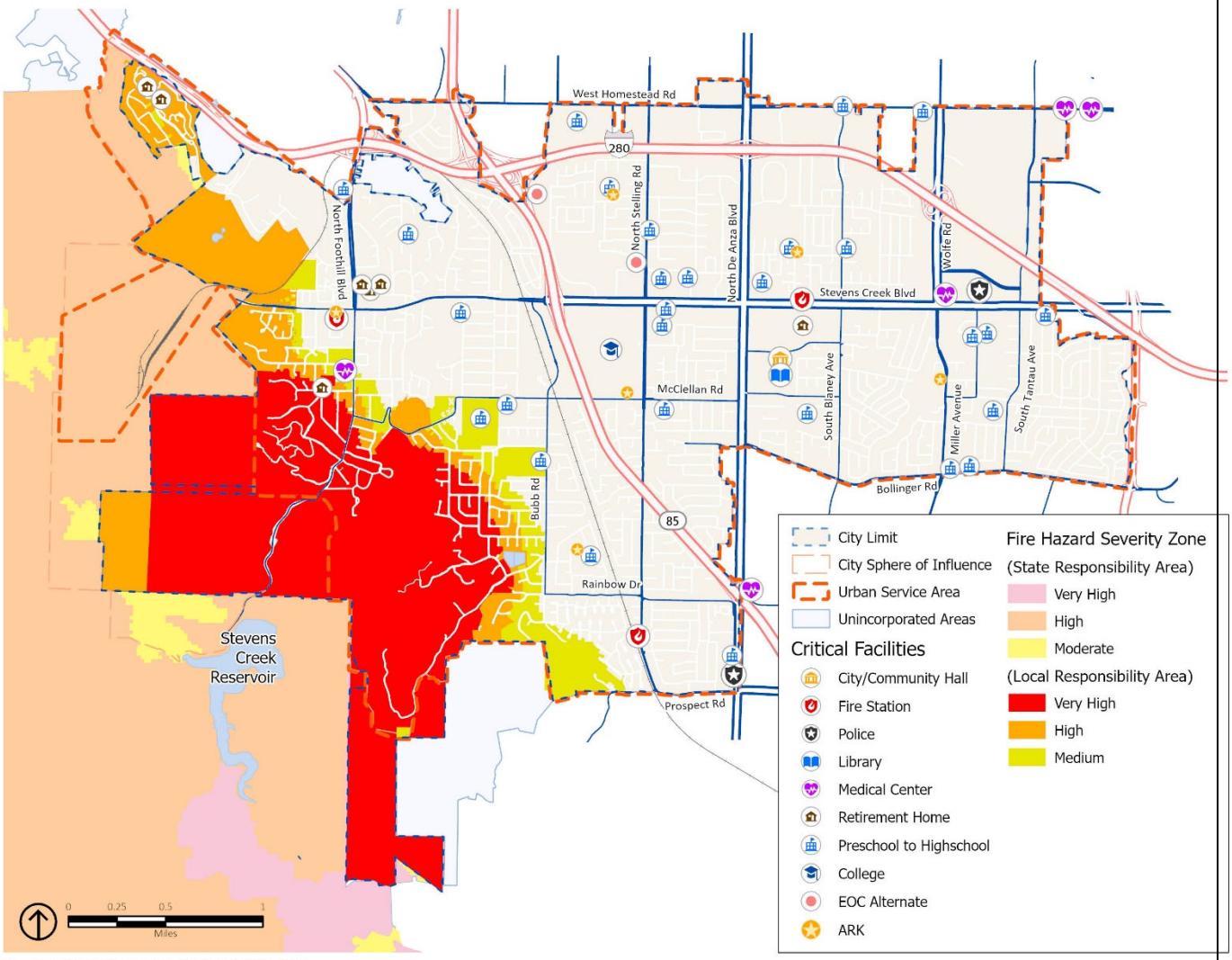
The California Department of Forestry and Fire Protection (CAL FIRE) establishes Fire Hazard Severity Zones (FHSZs) in both state responsibility area (SRA) and local responsibility areas (LRA), designating each as moderate, high, or very high severity. These zones evaluate *hazard*, instead of *risk*, and are based on fuel loading, slope, fire weather, and other relevant factors, such as areas where winds have been identified as a major cause of wildfire spread. *Hazard* is based on the physical conditions that create a likelihood and expected fire behavior over a 30 to 50-year period without considering hazard reduction measures such as home hardening, whether a wildfire has recently occurred, or fuel reduction efforts. The State identifies the Wildland-Urban Interface or WUI as the Moderate, High, and Very High FHSZs in State and Local Responsibility Areas. Development in the Very High FHSZs, and where applicable within Moderate or High FHSZs as determined by local fire code adoption, must comply with additional State and local requirements for building and site design, including the latest provisions of the California Building Code, California Residential Code, ~~and~~ California Fire Code, and the California Wildland-Urban Interface Code. **Figure HS-4** shows the FHSZs in and around Cupertino.

In June 2025, the City adopted the Local Responsibility Area FHSZ map into Cupertino Municipal Code Chapter 16.74, *Wildland Urban Interface Fire Area*. During the review and adoption process, the City revised the State's recommended Local Responsibility Area FHSZ to ensure that only one FHSZ applied to each applicable parcel. Where CAL FIRE identified multiple FHSZs on a single parcel, the City upgraded the designation to the higher of the zones, to ensure consistency in implementation of fire hazard reduction measures.

~~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.~~

~~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).~~

FIGURE HS-4
FIRE HAZARD SEVERITY ZONES



Source: City of Cupertino, 2023; Cal FIRE, 2022

~~Santa Clara County lists the Montebello Road/Stevens Canyon area as the fourth-highest risk area in the county for fire hazards. The road linking Montebello and the Palo Alto Sphere of Influence toon the bottom south end 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 in accordance with locally adopted Fire Code and Standards. It also requires a private emergency access connection between public streets ~~with~~in Lindy Canyon and Regnart Canyon areas. ~~Presently, there are no water systems serving the Montebello Road and upper Stevens Canyon area, with the exception ofexcept for Stevens Creek itself. Because there is no water service to these areas, t~~The County requires homes to provide individual ~~water tanks and fire sprinkler systems~~private fire protection water supply tanks and hydrants since there is no water service to these areas. ~~(~~**Figure HS-~~5~~** illustrates the water service areas in the city~~)~~.

The urbanized portions of Cupertino are not ~~exposed to a risk of fire~~in designated fire hazard severity zones. The ~~C~~city is served by ~~a~~ well-managed ~~fire protection service~~all hazard emergency response services with a robust ~~as well as a~~ fire prevention program. ~~Buildings in the City are relatively new~~Moreover, ~~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.

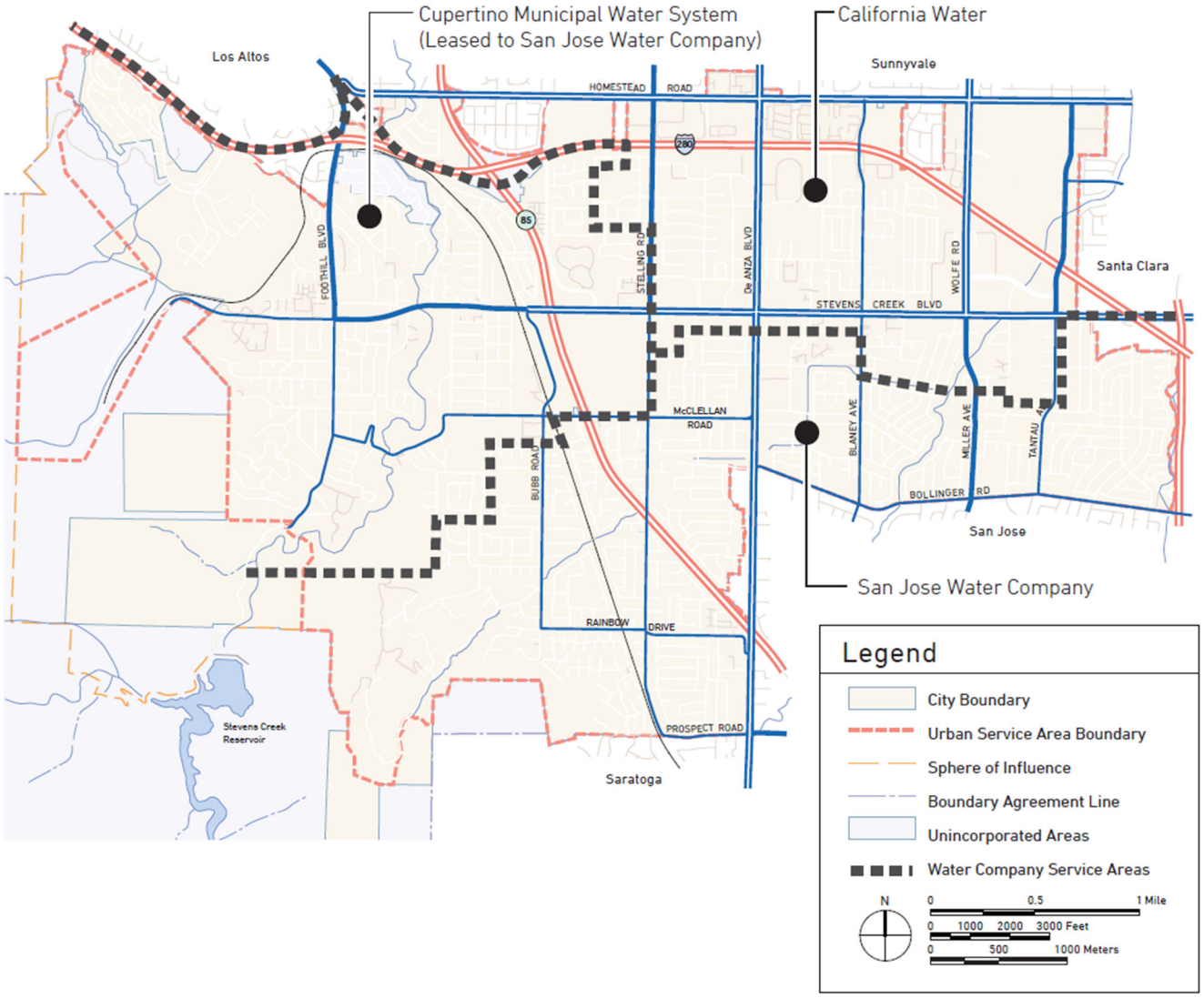
STRUCTURAL FIRES

Cupertino is also at risk from structural fires. Structural fires are often due to hazardous conditions, faulty wiring, mechanical equipment, or combustible construction materials in the built environment. The absence of fire alarms and fire sprinkler systems often exacerbates the damage associated with a structural fire. Structural fires are largely caused by human accidents, although deliberate fires (arson) may cause some events. Older buildings lacking modern fire safety features may face greater risk of fire damage. To minimize fire damage and loss, the City's Fire Code, based on California Code of Regulation Title 24, sets standards for building and construction. It requires adequate water supply for firefighting, and minimum street widths, among other things.

FIRE PROTECTION

Santa Clara County Fire Department provides fire protection in Cupertino through three fire stations (Cupertino, Monta Vista, and Seven Springs stations). For existing commercial buildings, the Fire Department conducts periodic inspections to ensure compliance with the general and specific fire safety regulations for each occupancy type as specified in the adopted Fire and Building Codes. The Santa Clara County Fire Department also implements a hazardous brush inspection program for hillside areas within its jurisdictional boundaries, including inspections of hillside properties by fire crews beginning in early April each year.

FIGURE HS-5
WATER SERVICE



HAZARDOUS WASTE AND MATERIALS

Hazardous materials are materials that pose a significant risk to public safety, or human and environmental health. 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 f~~F~~ederal, State, and local laws. A release or spill of bulk hazardous materials could result in fire, explosion, toxic cloud, or direct contamination of water, people, and property. The release or spill could involve a local site or many square miles, depending on its severity.

Santa Clara County Fire Department, County of Santa Clara Office of Emergency Management, and County of Santa Clara Hazardous Materials Compliance Division are responsible for hazardous materials accidents at all locations within the city. The City has adopted a Hazardous Materials Storage Ordinance that regulates the storage of these materials in solid, ~~and~~ liquid, and gas forms. ~~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.~~ Several State agencies, which have jurisdiction over hazardous materials sites, oversee the monitoring of hazardous materials and waste facilities. Potential and known contamination sites are monitored and documented by the California Department of Toxic Substances Control and the Regional Water Quality Control Board. **Figure HS-6** identifies potential sites within the city that may contain hazardous materials. The California Department of Toxic Substances Control typically acts as the lead agency for sites involving toxic substances and remediation, while the Regional Water Quality Control Board leads issues concerning water quality. Additionally, the County of Santa Clara Department of Environmental Health serves as the oversight agency for sites within the city. It is important to note that the City is not the lead agency for cleanup or mitigation of these sites under the California Environmental Quality Act.

A review of hazardous materials sites in Cupertino,[1] produced by the California Department of Toxic Substances Control EnviroStor database indicates two active voluntary cleanup sites, a voluntary cleanup site requiring no further action, one certified school cleanup site, and three closed hazardous waste sites, three inactive sites, and five sites referred to local or regional agencies. The two active cleanup sites are Cupertino Village Cleaners at 10989 North Wolfe Road and Delia's Cleaners at 7335 Bollinger Road. Neither site requires action by the City, as the California Department of Toxic Substances Control oversees hazardous waste cleanup efforts at these locations.

A review of leaking underground storage tanks in Cupertino, produced by the State Water Resources Control Board,[2] indicates 14 open cleanup program sites in the assessment, remediation, and long-term management phases. These sites can be accessed for further details via the following links:

[1] The City conducted a review of hazardous materials sites on December 26, 2025.
[2] The City conducted a review of leaking underground storage tank sites on December 26, 2025

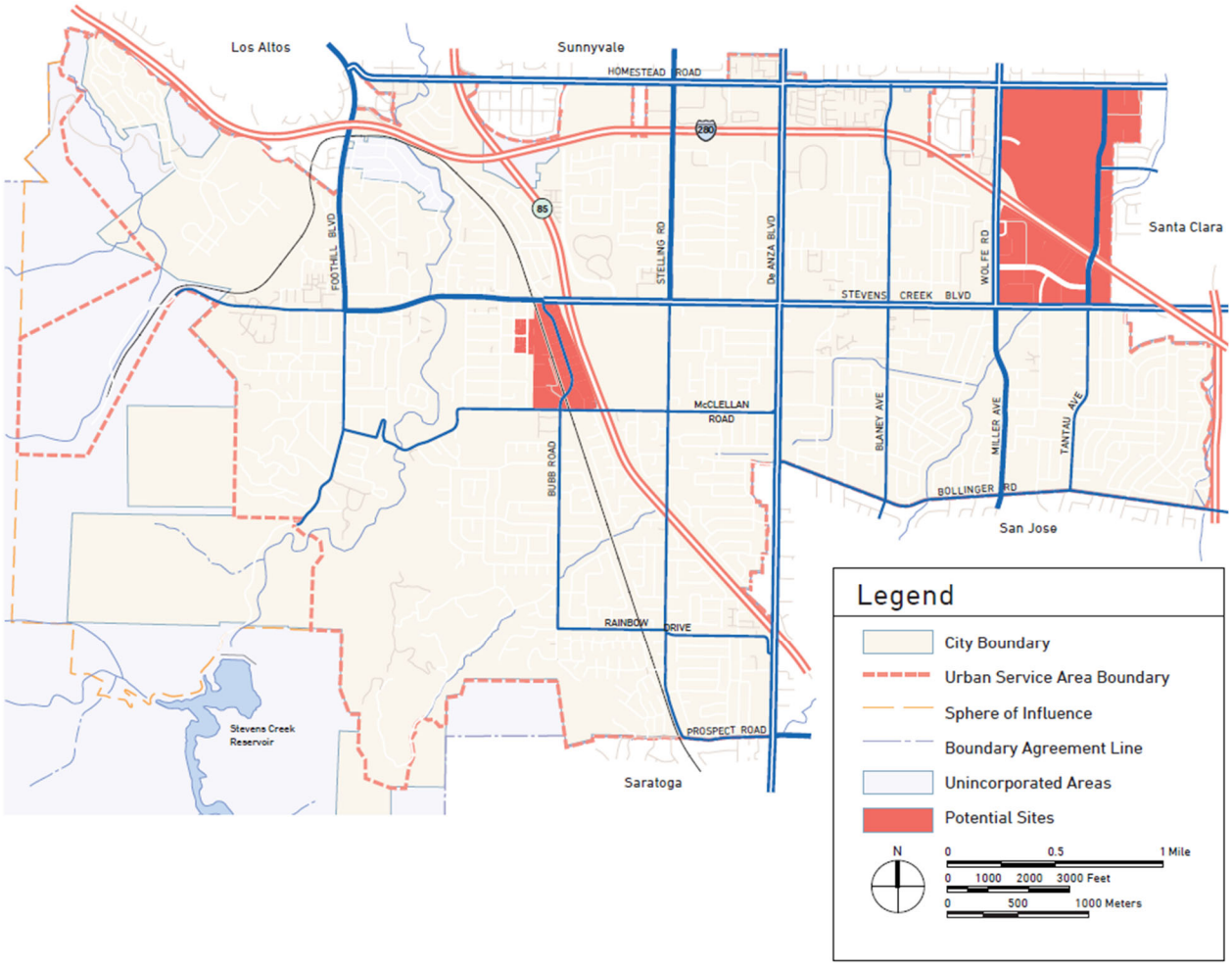
- California Department of Toxic Substances Control EnviroStor database: https://www.envirostor.dtsc.ca.gov/public/map/
- State Water Resources Control Board GeoTracker database: https://geotracker.waterboards.ca.gov/map/

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 (Assembly Bill 2948), Cupertino, along with 13 other cities in Santa Clara County, 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 to provide residents with accessible options for safely disposing of hazardous materials, such as paints, batteries, and chemicals, thereby reducing environmental and public health risks. ~~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.~~ Cupertino residents may use the permanent drop-off location for household hazardous waste in San Jose or visit temporary events that occur throughout the year in neighboring jurisdictions.

ELECTROMAGNETIC FIELDS

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

FIGURE HS-6
POTENTIAL HAZARDOUS SITES



~~GEOLOGIC AND SEISMIC~~ SEISMIC AND GEOLOGIC HAZARDS

Seismic and geologic hazards are risks caused by the movement of different parts of the earth's crust or surface. Seismic hazards include earthquakes and hazardous events caused by them. Geologic hazards are other hazards involving land movements that are not linked to seismic activity and can inflict harm to people or property.

SEISMIC HAZARDS

Seismic activity occurs along boundaries in the earth's crust, called faults. Pressure along the faults builds over time and is ultimately released, resulting in ground shaking commonly referred to as an earthquake. Earthquakes can also trigger other hazards, including surface rupture (cracks in the ground surface), liquefaction (causing loose soil to lose its strength), landslides, and subsidence (sinking of the ground surface).

Earthquakes

While Cupertino is at risk from many natural and human-caused hazards, the event with the greatest potential for loss of life or property and economic damage is an earthquake. This risk is true for most of the San Francisco Bay Area region, which has several active faults. Earthquake risk is very high in Santa Clara County, including the City of Cupertino, due to the presence of three major active faults[3] in the region, the Hayward Fault, Calaveras Fault, and San Andreas Fault. All of these faults have the potential for major earthquakes. **General Plan Appendix E** provides additional detail about seismic hazards, magnitude and occurrence, acceptable exposure rise, and technical investigations required based on acceptable risk.

Earthquakes are likely to continue to occur on an occasional basis. Most are expected to cause no substantive damage and may not even be felt by most people. Major earthquakes are rare but have occurred and remain a possibility in the region. The Hayward Fault is emerging as a significant hazard throughout the Bay Area due to its heightened likelihood of activity and its intersection with densely populated areas and critical infrastructure. In a worst-case scenario, a rupture on the Hayward Fault could extend through the Calaveras Fault to its junction with the San Andreas Fault. According to the Uniform California Earthquake Rupture Forecast, there is a 14.3 percent probability of a magnitude 6.7 or greater earthquake occurring along the Hayward Fault by 2044. For the Calaveras Fault, the probability is 7.4 percent, while the San Andreas Fault has a 6.4 percent chance of experiencing a similar event in the same timeframe. Although infrequent, a major earthquake along any of the nearby faults could result in substantial casualties and damage, although the greatest risk in Cupertino is from the San Andreas Fault due to its proximity and high potential to cause a severe earthquake. A major earthquake along any of these faults could damage or destroy transportation infrastructure, such as Interstate 280, State Route 85, or bridges, limiting access in and out of the community.

[3] Active faults are defined by their current movement and deformation and their potential to cause earthquakes or other types of ground deformation in the future.

~~Cupertino is located in the seismically active San Francisco Bay region, which has several active seismic faults.~~ The San Andreas F~~f~~ault, 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 F~~f~~ault include the Sargent-Berrocal and Monta Vista-Shannon F~~f~~ault systems that ~~also cross~~intersect the western portion of the city. There are no Alquist-Priolo Earthquake Fault Zones in the city; the nearest Alquist-Priolo Earthquake Fault Zone is along the San Andreas Fault, west of the city. **Figure HS-7** shows the location of regional faults and Alquist-Priolo Earthquake Fault Zones, which outlines the areas at risk for potential surface fault rupture.

Movement on the San Andreas F~~f~~ault 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 F~~f~~aults is more variable in style. ~~Both of these~~Both 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.~~

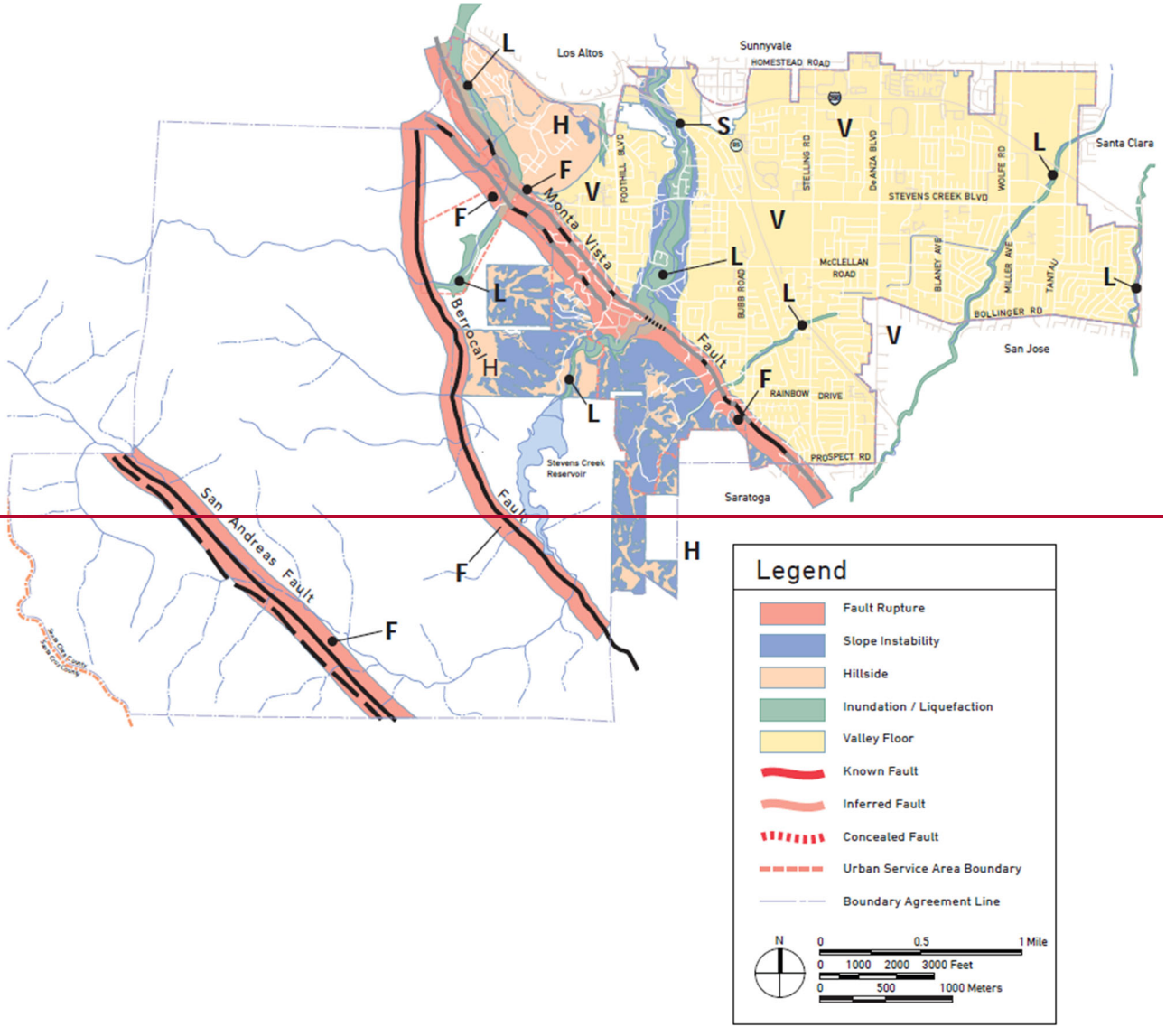
Other Seismic Hazards

In addition to the direct physical damage that can result from the motion of an earthquake, damage can result from liquefaction. Soils susceptible to liquefaction are typically found in low-lying, current or former, floodplains. Portions of the city near the floodplains of Permanente Creek, Stevens Creek, Regnart Creek, and Calabazas Creek are likely to face liquefaction during an earthquake. **Figure HS-8** shows the areas facing an elevated liquefaction risk in Cupertino, based on geological, geotechnical, and groundwater conditions.

Earthquake-induced landslides pose a significant risk due to the presence of landslide-prone areas in western Cupertino and proximity of earthquake faults. Ground shaking from seismic activity can cause rocks, debris, and hillside soils to loosen and fall downslope, harming facilities and infrastructure in its path. Sinkholes, which are depressions or holes in the ground that form when the surface collapses into

an underground space, are also a hazard in Cupertino. Sinkholes can occur suddenly and can be very dangerous if they form underneath buildings, roads, or other structures.

~~FIGURE HS-5~~
~~GEOLOGIC AND SEISMIC HAZARDS~~



~~*Faults within the Cupertino planning area are characterized by (A) Horizontal and (B) Vertical displace- ments.*~~

Table HS-1 Explanations of Geologic and Seismic Hazards

Zone	Description
(F) – Fault Rupture	7Regional Fault Lines,Area of potential surface fault rupture hazard within 300 feet east and 600 feet west of the Monta Vista and Berrocal Ffaults, and within 600 feet of the San Andreas Ffault.
(S) – Slope Instability	As shown on Figure HS-9, Landslide Susceptibility Areas, or the California Geological Survey, aAreas 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. This area falls under the Residential Hillside Development (RHS) overlay zone, which regulates single-family residential development to preserve the natural hillside setting. Compliance with the RHS ordinance, including required geotechnical and arborist reports, is necessary for development approval.
(L) – Liquefaction / Inundation	As shown on Figure HS-8, Liquefaction Areas, or the U.S. Geological Survey, Area areas 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

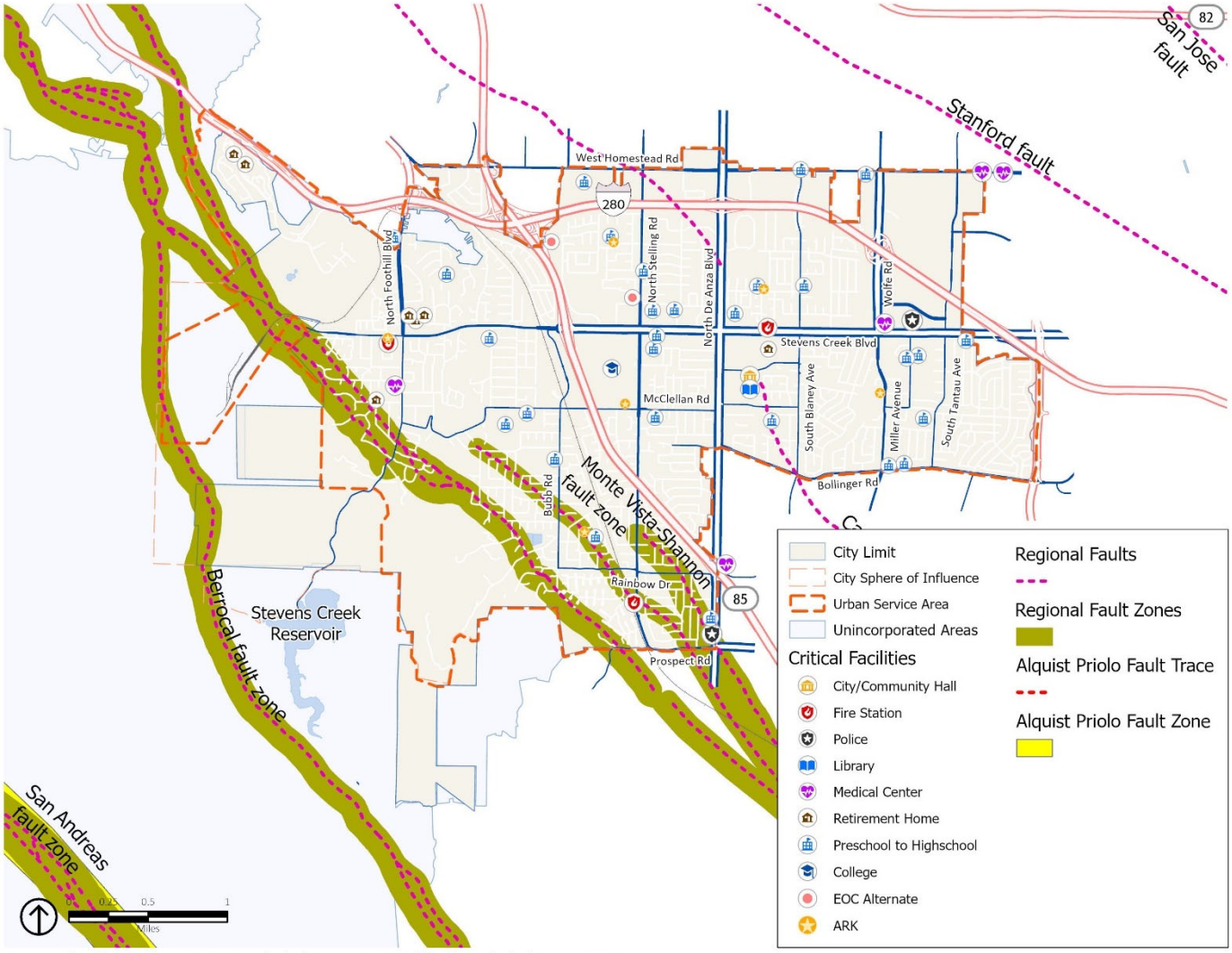
	Causative Faults	Distance from De Anza/SCB Intersection	Maximum Historic Moment Magnitude	Maximum Probable Moment Magnitude	Est. Recurrence Interval of Max. Prob. Earthquake
San Andreas System	San Andreas	5.5 miles	7.9	7.9	220 years
	Hayward (South)	10 miles	7.0	7.0	236 years
	Calveras (Central)	14 miles	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	2,400 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 Emergency Centers (hospitals, fire/ police stations, post-earthquake aide stations, schools, City Hall and Service Center, De Anza College)	5% to 25% of project cost 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) Facilities important to local economy	5% to 25% of project cost 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 (farmland, landfills, wildlife areas)	Design to resist minor earthquakes (warehouses, farm structures) without damage; resist moderate earthquakes without structural damage, with some nonstructural damage; resist major earthquake (maximum probability on local faults without collapse, allowing some structural and non-structural damage)

Table HS-4 Technical Investigations Required Bbased 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

FIGURE HS-7
FAULT ZONES



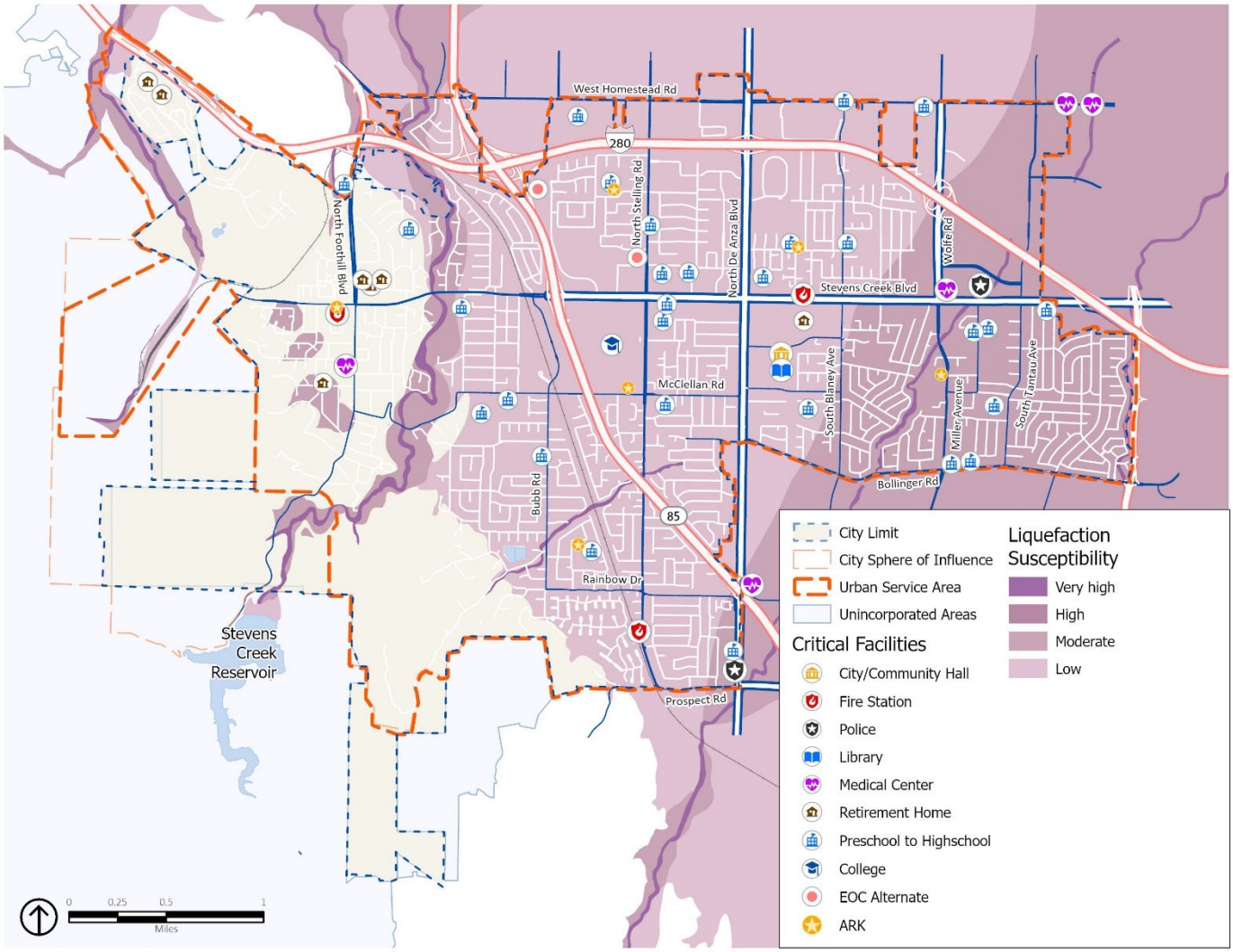
Source: City of Cupertino, 2023; US Geological Survey, 2020; California Geological Survey, 2022

~~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 (sSee Geologic Map for additional detail)~~
~~Seismic Hazard~~	~~Detailed Soils/Structural evaluation to certify adequacy of normal UBC earthquake regulations or to recommend more stringent measures~~

FIGURE HS-7
REGIONAL FAULT LINES

FIGURE HS-8
LIQUEFACTION AREAS



Source: City of Cupertino, 2023; US Geological Survey, 2022

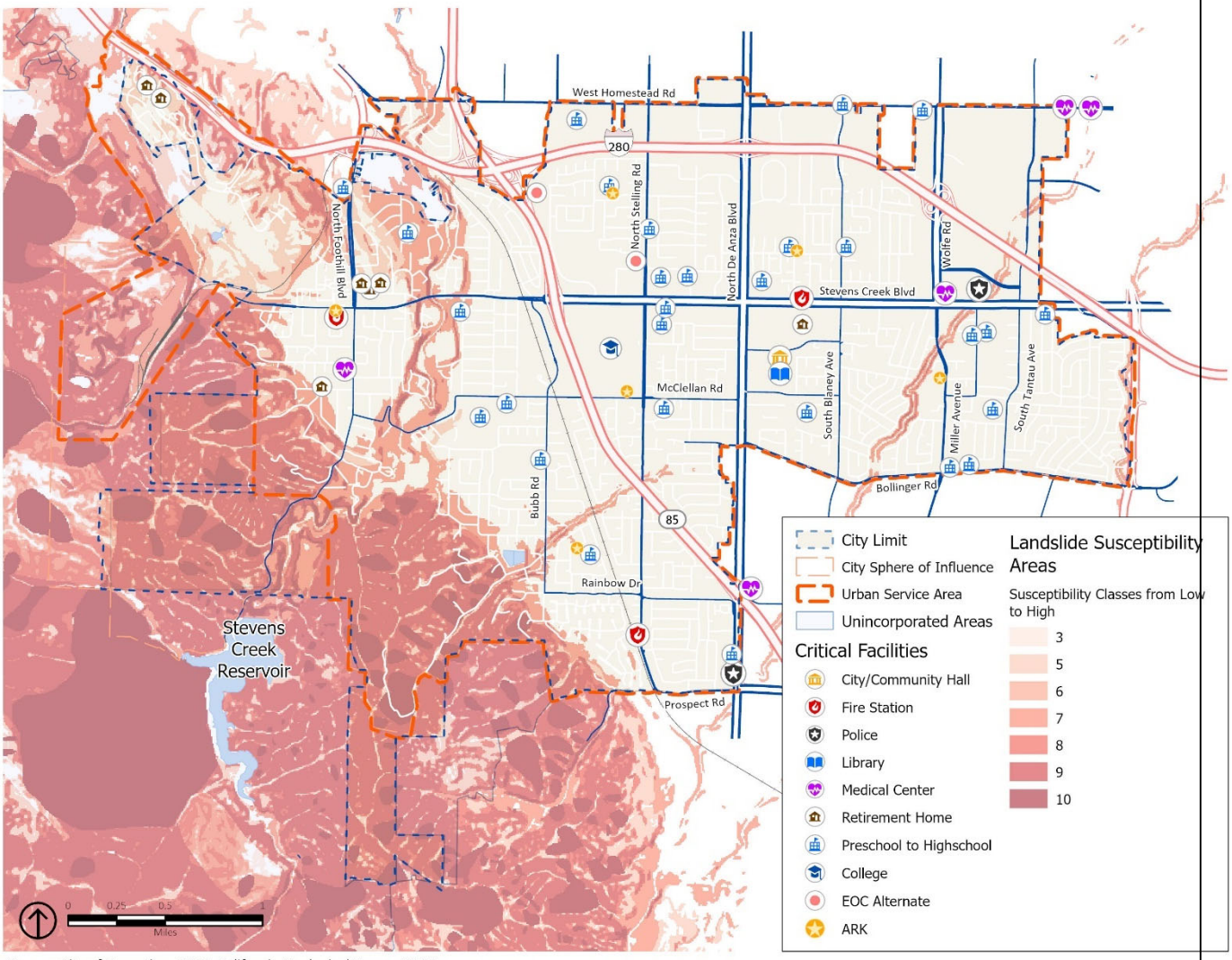
GEOLOGIC HAZARDS

Geologic hazards in Cupertino include landslides and erosion. Landslides and rock falls may occur in sloped areas, especially areas with steep slopes, and usually in areas of loose and fragmented soil. Landslides, rockfalls, and debris flows occur continuously on all slopes; some processes act very slowly, and others occur very suddenly, often with disastrous results. Landslides are often triggered by other natural hazards, such as earthquakes, heavy rain, floods, or wildfires, so landslide frequencies are often related to the frequency of these other hazards. Landslides have occurred on hillsides throughout the city and generally occur in winter during high rainfall years. Due to the hilly terrain, the southwestern portion of the city is in a very high landslide susceptibility class, as shown on **Figure HS-9**. **Appendix E, Geologic and Seismic Hazards,** further describes these landslide susceptibility areas, noting that they include all recognized landslide deposits and steep walls of Stevens Creek canyon, which have a moderate to high landslide potential under static or seismic conditions.

Climate change is expected to result in more precipitation extremes, including more frequent periods of heavy rainfall, which could cause an increase in the number of landslides or make landslides larger than normal. Increased wildfire frequency can also destabilize hillsides due to loss of vegetation and changed soil composition, which can contribute to greater runoff and erosion. Climate change will also cause more frequent and extreme droughts, which dries out soil. Accordingly, when precipitation occurs, the soil cannot absorb as much water, which creates higher levels of runoff, potentially leading to landslides and mudflows. The combination of a generally drier climate in the future, which will increase the chance of drought and wildfires, and the occasional extreme downpour, is, therefore, likely to cause more mudslides and landslides.

Cupertino is also susceptible to hazards related to erosion, or the geological process in which earthen materials are worn away and transported by natural forces such as water or wind, causing the soil to deteriorate. Eroded topsoil can be transported into streams and other waterways. Water erosion is the removal of soil by water and transportation of the eroded materials away from the point of removal. The impact of soil erosion on water quality becomes significant, particularly as soil surface runoff increases. Highly erosive soil can damage roads, bridges, buildings, and other structures by causing foundational instability, erosion around supports, washouts during heavy rains, and increased maintenance costs. The shifting or loss of soil over time can undermine the structural integrity of these infrastructures, leading to potential failures and safety hazards.

FIGURE HS-9
~~LIQUEFACTION AREAS~~LANDSLIDE SUSCEPTIBILITY AREAS



Source: City of Cupertino, 2023; California Geological Survey, 2018

FLOOD AND INUNDATION HAZARDS

Flooding is the rising and overflowing of water onto normally dry land. Floods are one of the most frequent natural hazards impacting Santa Clara County and among the costliest natural disasters in terms of human hardship and economic loss nationwide, causing substantial damage to structures, landscapes, and utilities, as well as life-safety issues. 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 in Cupertino~~,~~ and usually occur during periods of extended heavy rainfall.

The watersheds in the Santa Cruz Mountain Range feed into four major streambeds that traverse the ~~C~~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~~drain into channels leading to the San Francisco Bay. During heavy rainfall, these creeks create a potential flooding risk in the city as water levels may exceed the top of the creekbank. Historically, Cupertino has been at risk of flooding primarily during the winter and spring when stream systems swell with heavy rain. Occasionally, flash flooding from short-duration, high-intensity precipitation (often during atmospheric river events) may occur. In urban areas, flash flooding is an increasingly serious problem due to removal of vegetation and replacement of groundcover with impermeable surfaces such as roads, driveways, and parking lots. Other hazards connected with flooding and stormwater runoff include erosion, degradation of water quality, and loss of environmental resources.

Areas at an elevated risk of flooding are divided into 100- and 500-year flood zones. A 100-year flood zone has a 1-percent chance of experiencing a major flood in any given year, and a 500-year flood zone has a 0.2-percent chance of flooding in any given year. The 100-year floodplain in Cupertino is primarily along Permanente Creek, Stevens Creek, Regnart Creek, and Calabazas Creek. A majority of the city is within the 500-year floodplain. **Figure HS-10** shows the 100- and 500-year flood zones in and around Cupertino.

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 National Flood Insurance Program~~NFIP~~ requirements. Flood insurance premium rates for property owners ~~with~~in the city may be discounted to reflect the reduced flood risk resulting from community actions meeting the three goals of the ~~C~~Community Rating System, which are to: (1) reduce flood damage to insurable property; (2) strengthen and support the insurance aspects of the National Flood Insurance Program~~NFIP~~; and (3) encourage a comprehensive approach to floodplain management. In 2025, after completion of a five-year review of the City's floodplain management and flood risk reduction efforts, the Federal Emergency Management Agency improved the City's CRS rating, from

Class 7 to Class 6. Effective October 2025, property owners in Cupertino's Special Flood Hazard Areas receive a 20 percent discount on flood insurance premiums, and property owners outside the Special Flood Hazard Areas and within the City limits receive a 10 percent discount due to the improved CRS rating.

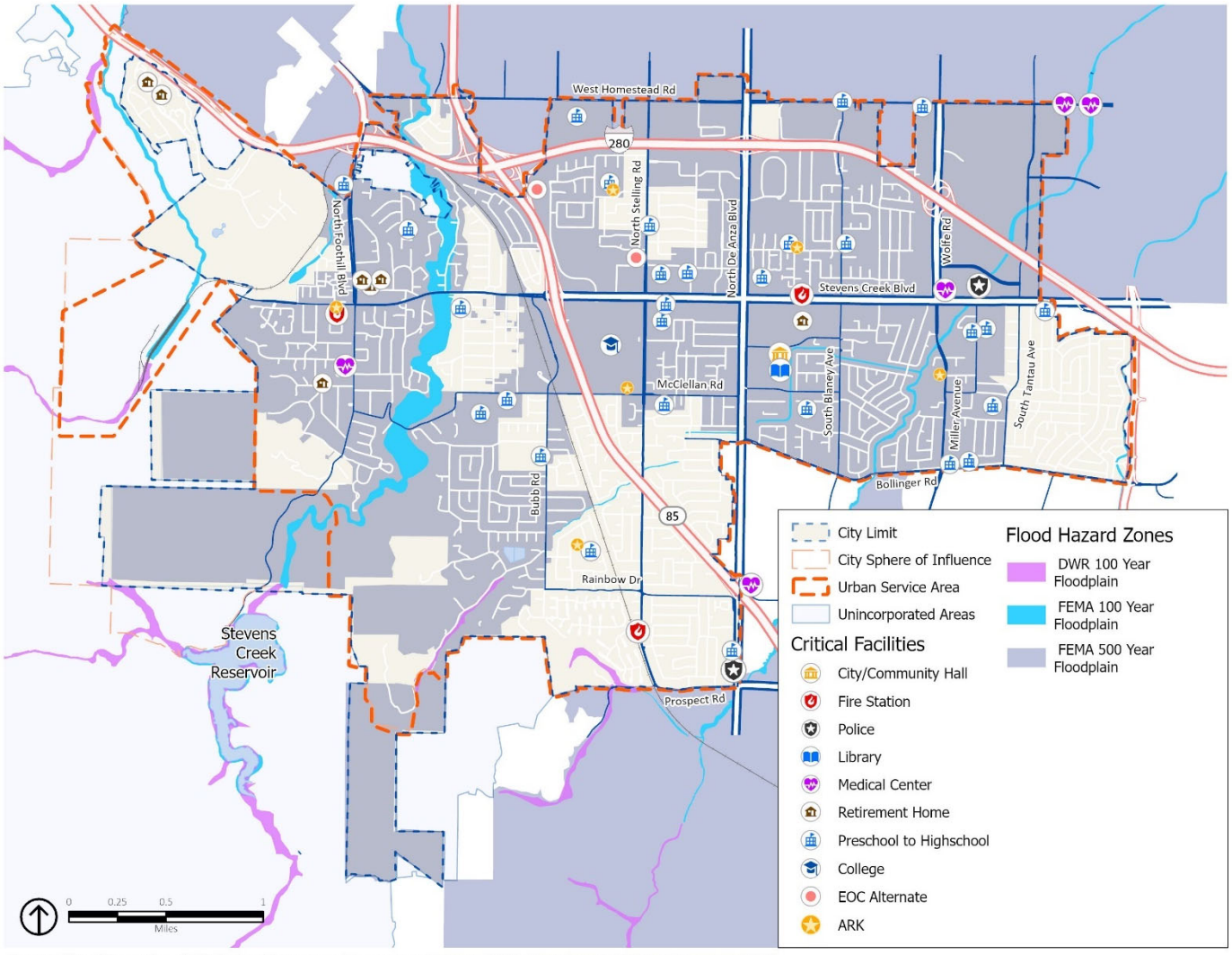
The City and the Santa Clara Valley Water District are actively involved in programs to minimize the risk of flooding. The City developed an approach to land use for the non-urbanized flood-plain of Stevens Creek south of Stevens Creek Boulevard in the Land Use Element. This ensures the preservation 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 event.

Although heavy precipitation events are a regular feature in California, atmospheric rivers, which are narrow corridors of concentrated moisture in the atmosphere and capable of transporting large amounts of water vapor that condenses and falls as intense precipitation, have caused major flooding in recent years. In winter and spring of 2023, a series of atmospheric rivers impacted the Bay Area, resulting in significant rainfall and widespread flooding across the San Francisco Bay Area.

While climate change may not change average precipitation levels significantly, scientists expect that it will cause more years with extreme precipitation events. This means that more years are likely to see intense storm systems that drop substantial volumes of precipitation over a short period and cause flooding. Because of this, floods are expected to happen more often in Cupertino, and climate change may expand the parts of the city that are considered prone to flooding.

FIGURE HS-~~12~~10
FLOOD HAZARD ZONES

FIGURE HS-10
FLOOD HAZARD ZONES



Source: City of Cupertino, 2023; Federal Emergency Management Agency, 2021; Department of Water Resources, 2021

DAM AND PIPELINE FAILURE

A dam failure is an uncontrolled release of water from a reservoir through a dam because of structural failures or deficiencies. Pipeline failures are a similar uncontrolled release from a water pipeline or aqueduct. The primary danger from dam or pipeline failure is the high-velocity flooding downstream of the dam and the limited warning times that can be given for evacuation.

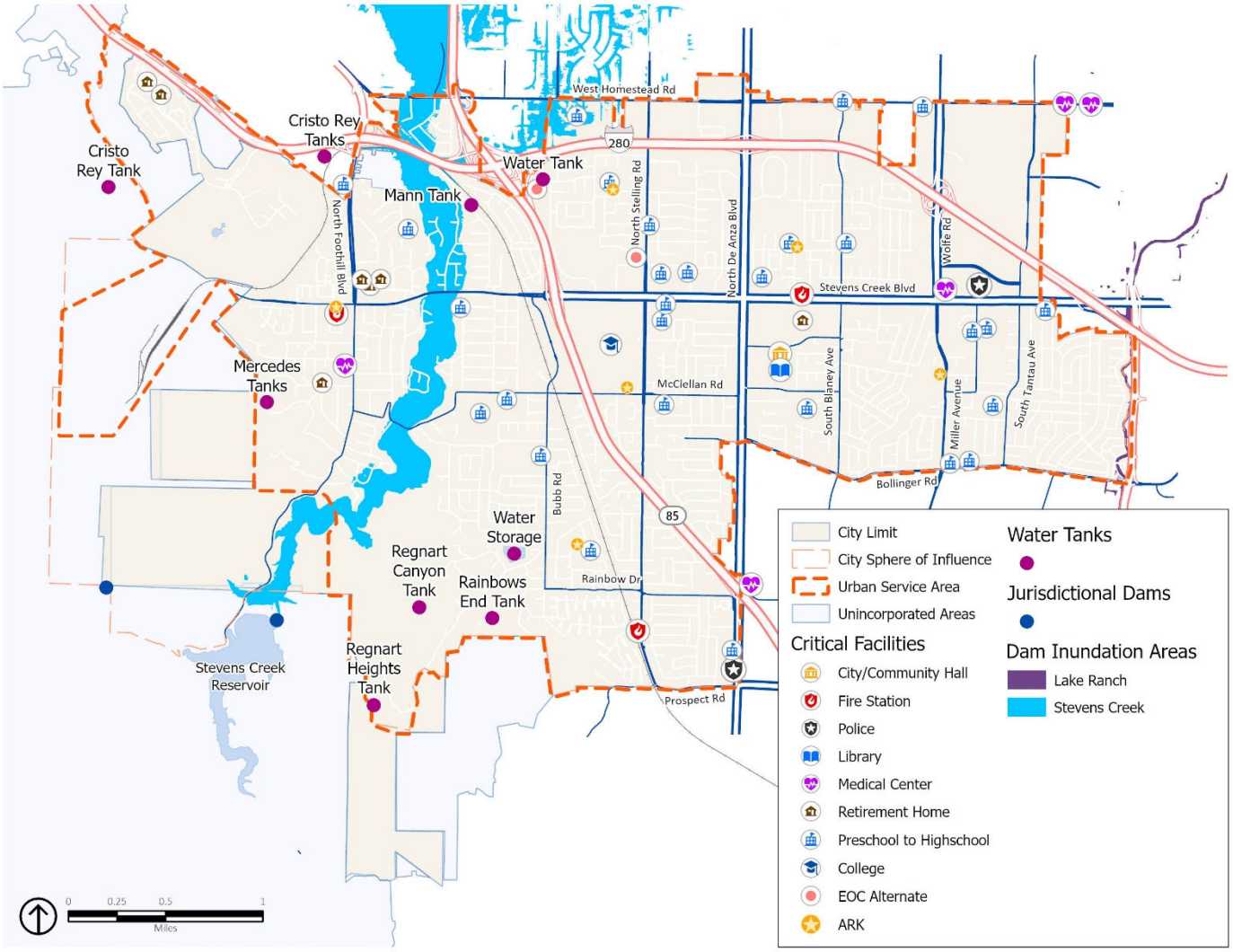
Dam or pipeline failures can range from minor to catastrophic, potentially harming human life and property downstream from the failure. In addition, ecosystems and habitats can be destroyed by fast-moving floodwaters, debris, and sedimentation from the inundation. Failures are rare but not unprecedented; they can be caused by overtopping, foundation defects, piping and seepage failures, or conduit and valve failures. Many dam or pipeline failures are the secondary result of other natural disasters, such as earthquakes, landslides, and extreme storms.

The largest body of water ~~with~~in the area is the Stevens Creek Reservoir. Stevens Creek Reservoir ~~Dam~~ meets current dam safety standards and the probability of its failure is minimal. The Stevens Creek Reservoir, owned by the Santa Clara Valley Water District, is outside of city limits, immediately to the southwest, as shown in **Figure HS-11**. In the event of a dam failure at the Stevens Creek Reservoir, land surrounding Stevens Creek would flood, including residential areas adjacent to Stevens Creek and a portion of Interstate 280.

The Santa Clara Valley Water District has a comprehensive Dam Safety Program, which includes proactive inspection of upgrades and improving its dams and water supply structures as needed and in consultation with regulatory agencies. Engineers monitor dams using instruments, monthly visual inspections, and periodic dam safety reviews to prevent loss of life, personal injury, and property damage from the failure of dams. The safety of each dam is re-evaluated with advances in geotechnical, structural, and earthquake engineering and for evidence of seepage or ongoing ground movement.

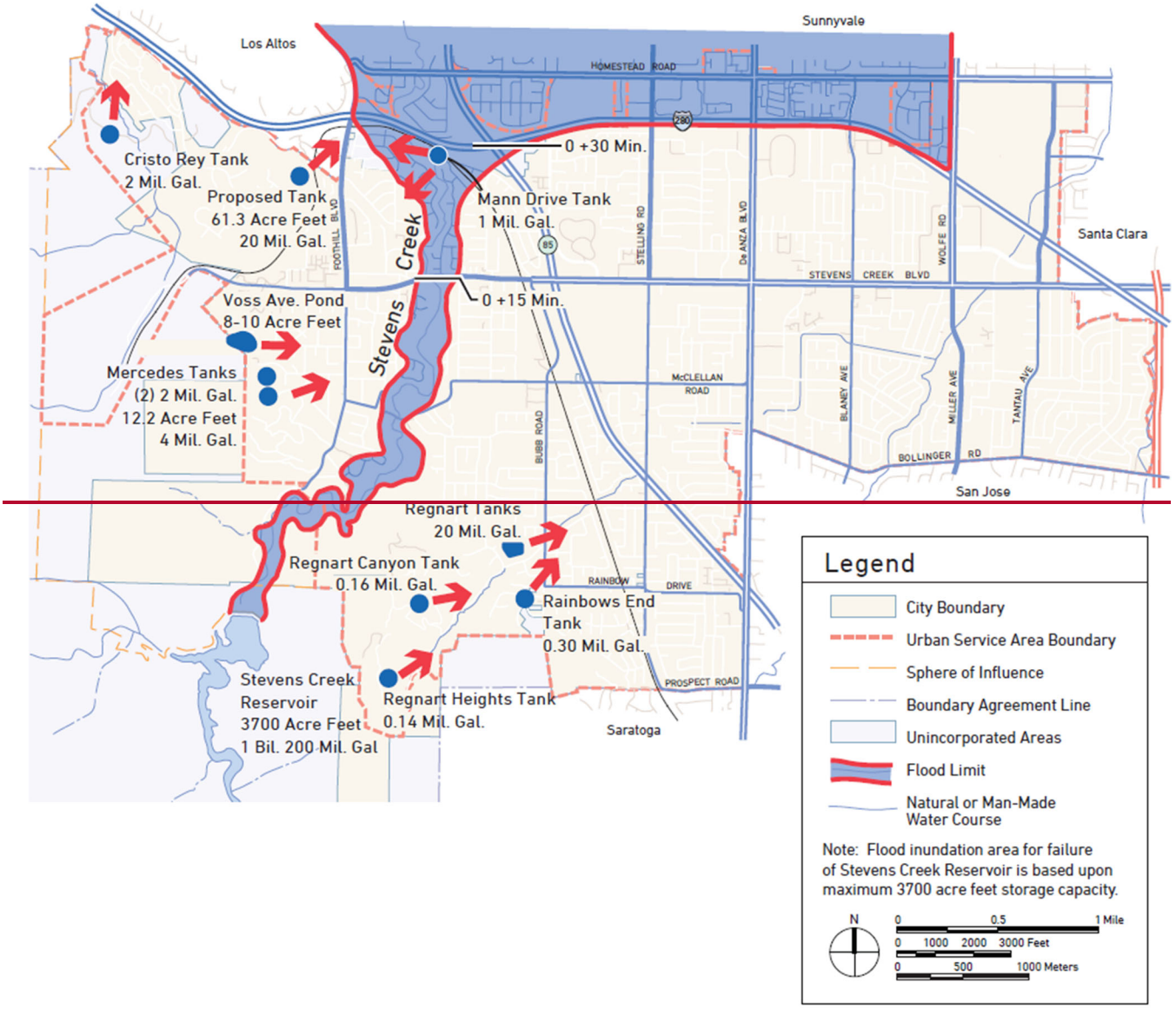
The potential for a dam failure in Cupertino is likely to remain a risk in future years, although the probability of such events is expected to remain very low.

FIGURE HS-11~~3~~
DAM INUNDATION AREAS

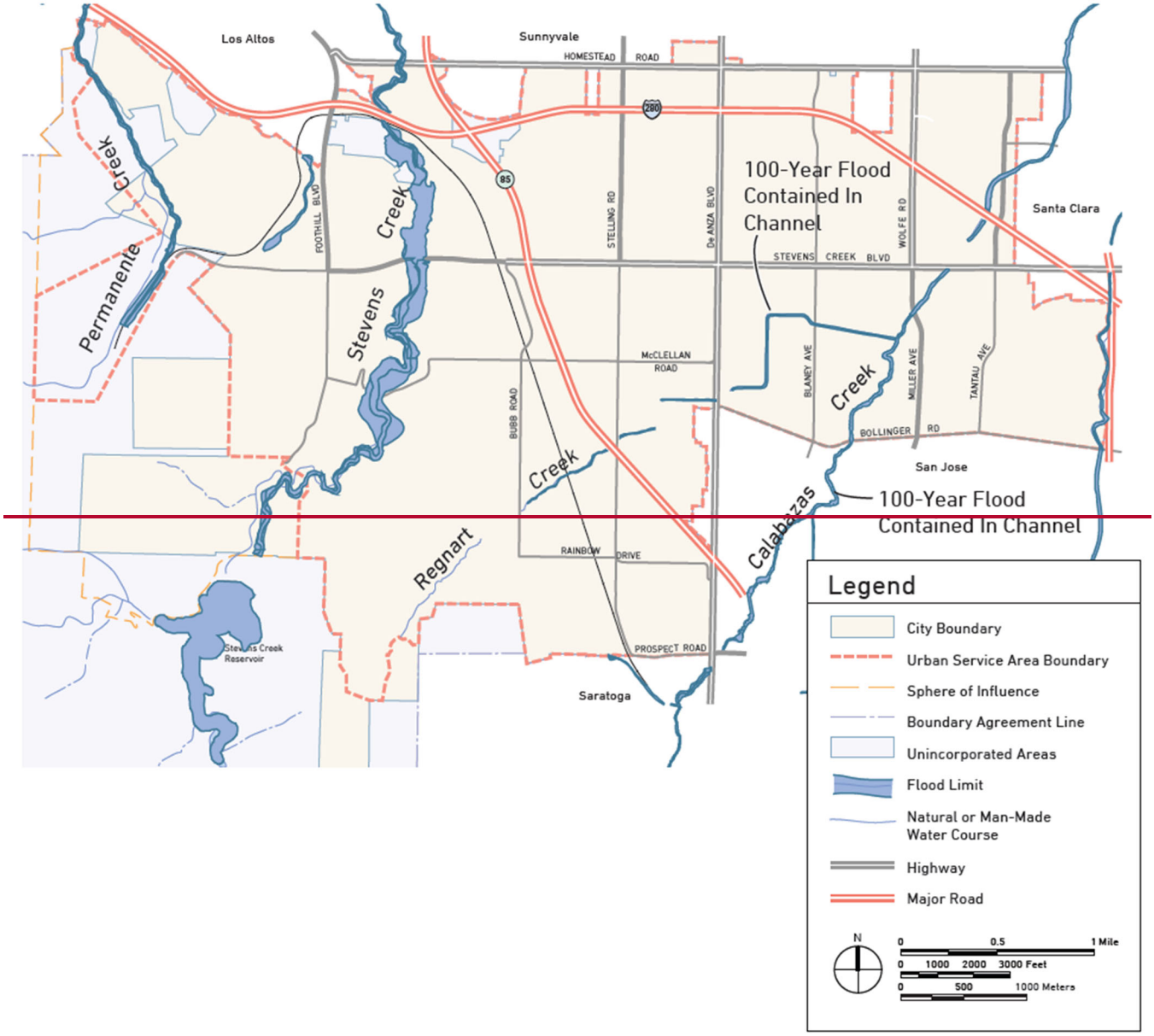


Source: City of Cupertino, 2023; Department of Water Resources, 2023

~~FIGURE HS-6~~
~~FACILITY FAILURE~~



~~FIGURE HS-7~~
~~100-YEAR FLOOD~~



CLIMATE CHANGE RESILIENCE

Climate change is the long-term shift in average weather patterns globally, characterized by significant alterations in temperature and precipitation patterns over extended periods. As global temperatures continue to rise, communities experience more frequent and intense natural hazards, including heatwaves, storms, floods, droughts, and wildfires. These events often occur simultaneously, creating cascading effects that can amplify impacts to Cupertino. Climate change hazards affecting Cupertino include poor air quality, drought, extreme heat, flooding, ~~human health hazards,~~ landslides, severe weather, and wildfire. When multiple climate hazards occur simultaneously, such as droughts amplifying wildfire risk, or extreme heat exacerbating water shortages, the impacts on the Cupertino community, infrastructure, and natural systems can be particularly severe. These changes will continue to affect the frequency, intensity, and distribution of hazards throughout the city in the coming decades.

AIR QUALITY

Air quality refers to the condition of the air within our surroundings, particularly regarding its cleanliness and the presence of pollutants. Air quality is determined by the composition of gases and particles in the atmosphere, and it is a critical aspect of environmental health. Air pollution comes from both mobile sources (e.g., cars, trucks, airplanes) and stationary sources (e.g., agricultural and industrial uses). Cupertino is highly susceptible to poor air quality due to major highways and quarry activity adjacent to the city. Wind patterns and geographical features move air pollution from other areas, such as the San Joaquin Valley, and trap pollution in the Santa Clara Valley. From 2015 to 2019, Cupertino experienced 31 days where ozone or fine particulate matter ($PM_{2.5}$) levels exceeded State standards. Because of Cupertino's proximity to major highways, quarry activity, and Santa Clara Valley's geographical features, air quality will continue to be a concern.

Increasing statewide fire frequency can create recurring air quality degradation events, leading to respiratory health effects. Wildfire smoke consists of a mix of gases and fine particulate matter from burning vegetation and materials. The pollutant of most concern from wildfire smoke is $PM_{2.5}$, which is damaging to human health because of its ability to deeply penetrate lung tissue and affect the heart and circulatory system. Although wildfire smoke presents a health risk to everyone, sensitive groups, such as children (particularly younger children), older adults, people with chronic respiratory or cardiovascular disease, and low-resourced persons~~.~~ may experience more severe acute and chronic symptoms from exposure to wildfire smoke.

In many regions of the United States, climate-driven changes in weather conditions, including temperature and precipitation, are expected to increase ground-level ozone and particulate matter, such as windblown dust from droughts or smoke from wildfires. Increased frequency of wildfires will release greater amounts of particulate matter and other pollutants into the air and drier conditions increase airborne dust. Possible changes in wind patterns may also trap a greater amount of air pollutants in the Santa Clara Valley, increasing exposure to air pollution.

DROUGHT

A drought is an extended period when precipitation levels are well below normal. Drought may affect domestic water supply, energy production, public health, and wildlife, or contribute to wildfire. Like most of California and the western United States, Cupertino chronically experiences drought cycles.

The U.S. Drought Monitor recognizes a five-point scale for drought events:

- D0 (abnormally dry)
- D1 (moderate drought)
- D2 (severe drought)
- D3 (extreme drought)
- D4 (exceptional drought)

According to the U.S. Drought Monitor, the most intensive drought in recent years occurred during most of 2014, when all of Santa Clara County was classified as "extreme" drought. More recently, in 2022, from January through the end of the year, the county was also classified as being in "severe" drought. As of July 2024, Santa Clara County, including Cupertino, was not classified as drought. During severe drought conditions, water shortages are common, and water restrictions may be imposed to meet essential community needs. The Santa Clara Valley Water District's 2020 Water Shortage Contingency Plan contains actions to implement and enforce regulations and restrictions for managing a water shortage when it declares a water shortage emergency under the authority of the California Water Code.

Cupertino's water supply comes from local and imported water. Local rainfall and runoff flow into reservoirs for storage and blend with imported water. Approximately 50 percent of Santa Clara County's water supply comes from hundreds of miles away – first as snow or rain in the Sierra Nevada range of northern and eastern California, then as water in rivers that flow into the Sacramento-San Joaquin River Delta or directly to water conveyance systems. Imported water is brought into the county through the complex infrastructure of the State Water Project, the federal Central Valley Project, and San Francisco's Hetch-Hetchy system.

Although droughts are a regular feature of California's climate, scientists expect climate change will lead to more frequent and intense droughts statewide. Reduced winter precipitation levels and warmer temperatures have greatly decreased the size of the Sierra Nevada snowpack (the volume of accumulated snow), making less fresh water available for communities throughout California, including the imported water supply for Cupertino. A continued decline in the Sierra Nevada snowpack volume is expected, which may lead to lower volumes of available imported water.

EXTREME HEAT

According to the California Extreme Heat Action Plan, extreme heat days are defined as temperatures exceeding 98 percent of historical highs, and these events are becoming more frequent and intense due

to climate change. Extended periods of extreme heat, known as heat waves, threaten community safety and raise energy costs. An extreme heat day in Cupertino is one where the maximum temperature rises above 93.2 degrees Fahrenheit.

The Center for Disease Control and Prevention recognizes extreme heat as a substantial public health concern. Seniors, persons with chronic illnesses and/or disabilities, persons experiencing homelessness, outdoor workers, low-resourced people of color, immigrant/linguistically isolated communities, and households in poverty are the most vulnerable to extreme heat.

According to the U.S. Census, approximately 66 percent of all housing in the city was built prior to 1980, some of which are unlikely to have air conditioning and may lack effective insulation to regulate indoor temperatures. During extreme heat days, temperatures in poorly insulated homes may reach unhealthy temperatures. Therefore, people living in these homes, especially vulnerable populations, are at higher risk for heat-related illnesses from extreme heat events.

Very high temperatures can also harm plants and animals that are not well adapted to these events, including natural ecosystems. Extreme heat can increase water temperature in lakes, streams, creeks, and other water bodies, especially during drought conditions when water levels are lower.

The warmer temperatures brought on by climate change are likely to cause an increase in extreme heat events locally. Depending on the location and emissions levels, the state Cal-Adapt database indicates the number of extreme heat days is expected to rise from a historical annual average of 5 to 14 days by the middle of the century (2035 to 2064), and an average of 24 days by the end of the century (2070 to 2099).

SEVERE WEATHER

Severe weather is generally any destructive weather event, but it usually occurs in Cupertino as localized storms that bring heavy rain, hail, thunderstorms, and strong winds. Severe weather is usually caused by intense storm systems, although types of strong winds can occur without a storm. Severe weather often produces high winds and lightning that can damage structures and cause power outages. Lightning from these storms can ignite wildfires and structure fires that can cause damage to buildings and endanger people.

A relatively common weather pattern that brings southwest winds and heavy rain to California is often referred to as an atmospheric river. High winds, often accompanying severe storms, can cause significant property damage, threaten public safety, and have adverse economic impacts, including business closures and widespread power loss. These winds may occur as part of a seasonal climate pattern or in relation to other severe weather events, such as thunderstorms.

Electricity utilities throughout California, including PG&E, have begun to occasionally “de-energize,” or turn off the electricity for power lines that run through areas with an elevated fire risk. Public Safety

Power Shutoff (PSPS) events are intended to reduce the risk of power lines sparking or being damaged and starting a wildfire. A ~~Public Safety Power Shutoff~~PSPS event may occur at any time of the year, particularly during high wind events and dry conditions, and may be limited to specific communities or affect broad swaths of the state. While ~~Public Safety Power Shutoff~~PSPS events have been smaller and less frequent recently, these events still pose a risk to PG&E customers across Santa Clara County, including Cupertino.

Climate change is expected to cause an increase in intense rainfall and strong storm systems, such as atmospheric rivers. This increase means that Cupertino could see more intense weather resulting from these storms in the coming years and decades, although such an increase may not affect all forms of severe weather. Heavy rainfall can increase the frequency and severity of other hazards, including flooding and landslides.

HUMAN HEALTH HAZARDS

Human health hazards are bacteria, viruses, parasites, and other organisms that can cause diseases and illness in people. Some of these diseases may cause only mild inconvenience, but others are potentially life-threatening. These diseases ~~-~~are often ~~-~~carried by animals, such as mice and rats, ticks, and mosquitoes. Warmer temperatures and high precipitation levels can lead to increased populations of these disease-carrying animals, creating a greater risk of disease and increased rates of infection.

Populations most vulnerable to human health hazards are those who spend a disproportionate amount of time outdoors (such as outdoor workers or persons experiencing homelessness), those with fragile immune systems or existing illnesses (which may include persons with chronic illnesses and seniors), and those who may live in sub-standard housing or not have access to health insurance and medical care (households in poverty, low-resourced people of color, immigrant/linguistically isolated communities, and cost-burdened/low-income/overcrowded households). While many vector-carrying organisms thrive in warm and wet environments, regional climate trends toward hotter and drier conditions may reduce some vector populations, such as mosquitoes, in certain areas. However, the increasing frequency of extreme weather events, including periods of heavy rainfall and flooding, can still create episodic conditions conducive to vector breeding, particularly during cooler seasons. As a result, the overall risk of human health hazards may still increase, especially for already vulnerable populations.

NOISE

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

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 defines 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 efforts. Two major freeways (Interstate 280 and ~~Highway~~ State Route 85) and four major corridors (Stevens Creek Boulevard, De Anza Boulevard, Homestead Road, and Foothill Boulevard) cross Cupertino. These roadways are u~~stiliz~~ed 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~~Heidelberg 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 contributors.

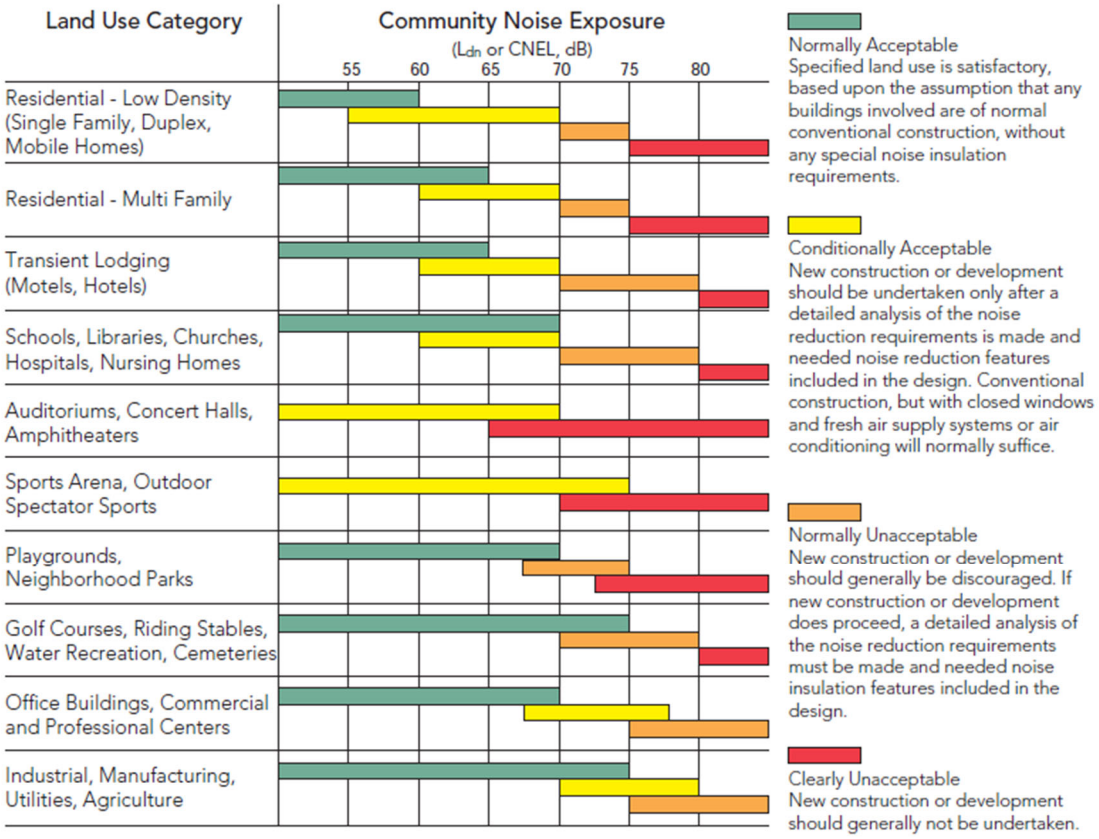
Cupertino receives some aircraft noise from facilities ~~with~~in the region, including San Jose International Airport, Moffett Federal Airfield, and Palo Alto Airport; however, the Cupertino city limit does not fall within the identified noise contours of any of these airports. One railroad line passes through the Monta Vista neighborhood and connects with the ~~Hanson Permanente~~Heidelberg 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.~~

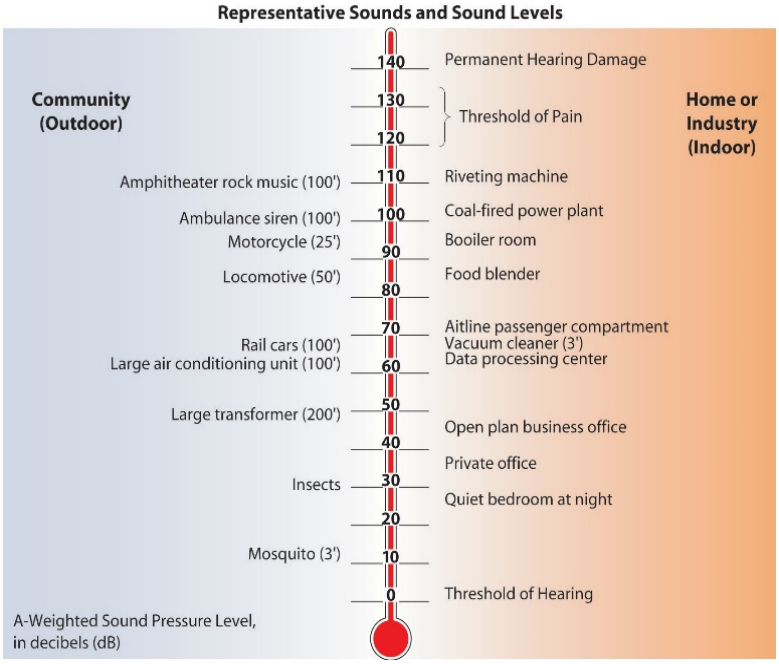
Non-transportation noise varies from stationary equipment (e.g., air conditioning units) to construction activity. Regulation to minimize excessive noise from non- transportation sources includes compliance with the City's noise standards that limit certain noise-generating activitiesy during evening 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 HHS-812**). 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 not avoiding the locationg of conflicting land uses adjacent to one another and incorporating buffers and noise control techniques, including increased building setbacks, installation and maintenance of landscaping, building transitions, site design, and building construction techniques. Selection of the appropriate noise control techniques will variesy depending on the level of noise that needs to be reduced as well as the location of the and intended noise-generating land use and the character of its surrounding uses.

FIGURE ~~H~~HS-~~8~~ 12 LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS




Representative Sounds and Sound Levels
Community (Outdoor)
Home or Industry (Indoor)
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Permanent Hearing Damage
Threshold of Pain
Riveting machine
Coal-fired power plant
Booiler room
Food blender
Aitline passenger compartment
Vacuum cleaner (3')
Data processing center
Open plan business office
Private office
Quiet bedroom at night
Threshold of Hearing
Amphitheater rock music (100')
Ambulance siren (100')
Motorcycle (25')
Locomotive (50')
Rail cars (100')
Large air conditioning unit (100')
Large transformer (200')
Insects
Mosquito (3')
A-Weighted Sound Pressure Level, in decibels (dB)

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 safety 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.

5. **EMERGENCY MANAGEMENT AND OPERATIONS**

   Measures related to emergency access, first responder training and operations, and evacuation and emergency preparedness public education and awareness can help minimize harm and protect community safety.

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GOALS, POLICIES, AND STRATEGIES

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 ~~F~~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 for Santa Clara County.

STRATEGIES:

HS-1.1.1. Monitoring and Budgeting.
Monitor and evaluate the success of the Multi-Jurisdictional Hazard Mitigation Plan, 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. Hazard Mitigation Incorporation.
Ensure that mitigation actions identified in the Multi-Jurisdictional Hazard Mitigation Plan 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: HAZARD MITIGATION PLAN INCORPORATION

Incorporate the Santa Clara County Multi-Jurisdictional

Hazard Mitigation Plan and the City of Cupertino Annex, as approved by the Federal Emergency Management Agency, into this Health and Safety Element by reference, as permitted by California Government Code Section 65302.6.

POLICY HS-1.3: PUBLIC AGENCY COOPERATION

Continue to cooperate with other public agencies to ensure adequate medical and other emergency services, including assessing and projecting future emergency service needs and maintaining clear communication protocols among jurisdictions and regional agencies to support unified decision-making, real-time information sharing, and coordinated emergency response.

STRATEGIES:

HS-1.3.1: Multiagency Emergency Response.

Coordinate with local and State emergency management agencies using the Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) to facilitate multiagency emergency response.

HS-1.3.2: Inter-jurisdictional Coordination.

Maintain inter-jurisdictional cooperation and coordination, including mutual aid agreements with fire protection and suppression agencies in Santa Clara County.

HS-1.3.3: Coordinated Disaster Response.

Continue to maintain agreements with other local, State, and federal agencies to ensure coordinated emergency and disaster response.

HS-1.3.4: New Facilities.

Coordinate with Santa Clara County Fire Department and Santa Clara County Sheriff's Department through capital improvement planning to establish fire and sheriff stations to serve Cupertino. New additions to public safety infrastructure will be determined by evaluating increased localized demand and proposed growth. Evaluate whether a combined facility is possible to reduce infrastructure costs and/or improve operational efficiency, when a need is determined.

POLICY HS-1.4: REGIONAL COORDINATION FOR FIRE PREVENTION

Coordinate wildland fire prevention efforts with adjacent jurisdictions. Work with the County and the Midpeninsula Open Space District to implement measures to reduce fire hazards, continuing efforts in fuel management, and considering the use of “green” fire break uses for open space lands.

POLICY HS-1.5: REGIONAL COORDINATION FOR FLOOD CONTROL

Consult with the Santa Clara Valley Water District as well as surrounding jurisdictions

regarding regional approaches to the planning, construction, operation, and maintenance of drainage and flood-control facilities.

POLICY HS-1.6: COORDINATION FOR ADEQUATE WATER SUPPLY

Coordinate with California Water Service and San José Water on effective management of water infrastructure systems.

POLICY HS-1.7: COORDINATION FOR ADEQUATE WASTEWATER CAPACITY

Coordinate with the Cupertino Sanitary District and San José-Santa Clara Regional Wastewater Facility to ensure wastewater infrastructure is effectively serving existing customers and has adequate capacity to provide for new demands on the infrastructure system.

POLICY HS-1.8: SEA LEVEL RISE PROTECTION

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

STRATEGIES:

HS-1.~~2~~8.1. Monitor Rising Sea Level.

Regularly coordinate with regional, S~~s~~tate, 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 for updates to the Federal Emergency Management Agency's ~~FEMA~~ flood map ~~updates~~ to identify areas in the city susceptible to sea level rise, addressing changes to ~~s~~State and regional sea and bay level rise estimates, and coordinating with adjacent municipalities on flood control improvements as appropriate.

HS-1.~~2~~8.2. 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.

POLICY HS-1.9: PFAS CONTAMINATION

Coordinate with Valley Water and the San Francisco Bay Regional Water Quality Control Board to monitor groundwater contamination, including for PFAS.

STRATEGY:

HS-1.9.1. PFAS and Environmental Review.

Ensure that environmental review analyzes and discloses all groundwater contaminants with established thresholds under federal and state regulations, as required by law.

GOAL HS-2

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

EMERGENCY PREPAREDNESS AND RESPONSE

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: BUILDING AND FIRE CODE COMPLIANCE

Ensure that all new development and redevelopment complies with the most current version of the California Building Code, California Fire Code, California Wildland-Urban Interface Code, and applicable local ordinances and ~~local fire department~~ standards to ensure improved public safety.

POLICY HS-2.2: PROMOTE EMERGENCY PREPAREDNESS

Distribute multi-hazard emergency preparedness information for all threats identified in the ~~emergency plan~~City's Emergency Operations 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 City's Emergency Preparedness website, and coordination of video and printed information at the library. Efforts will be made to provide information in multiple formats to accommodate persons of all abilities.

POLICY HS-2.3: EMERGENCY OPERATIONS AND TRAINING

Ensure ~~ongoing training of identified~~ City staff are trained on their functions/-responsibilities in the Emergency Operations Center (EOC) and in disaster preparedness, first aid, and CPR, as applicable.

STRATEGIES:

HS-2.3.1: Emergency Operations Center (EOC).

~~Review options to provide~~Complete functional, resilient, and seismic upgrades to the EOC facility at City Hall and Torre Annex to Essential Facility Standards, ~~or explore alternative~~

~~locations for the EOCand include necessary upgrades in the City's budget and~~ adopt a fully funded Capital Improvement Program and budget, as applicable, as an urgent priority.

HS-2.3.2: City Employee Training. Conduct regular emergency training exercises and participate in regional training exercises to ensure that employees are adequately trained in emergency response and recovery operations.

The City maintains storage containers, called ARKs, strategically located around the City that contain emergency response supplies used by Community Emergency Response Teams, Medical Reserve Corps, and Cupertino Amateur Radio Emergency Service.

POLICY HS-2.4: VOLUNTEER GROUPS

Continue to encourage the ongoing use of volunteer groups, such as Cupertino Emergency Response Team (CERT), to augment the City's emergency services, and clearly define responsibilities during a local emergency.

STRATEGIES:

HS-2.4.1: Cupertino Citizens Corps. Continue to support the Cupertino Amateur Radio Emergency Services (CARES), Community Emergency Response Team (CERT), and Medical Reserve Corps (MRC) programs to ensure the development of neighborhood-based emergency preparedness throughout the cCity. Encourage ongoing cooperation with CERTs in other cities.

HS-2.4.2: Community Groups. Continue pre-disaster agreements with appropriate community groups to provide specified post-disaster assistance, through the Emergency Services ~~Coordinator~~ Manager, and with the advice of the City Attorney.

HS-2.4.3: American Red Cross. Continue to implement the American Red Cross agreements under the direction of the ~~Director of Emergency Services~~Emergency Services Division during a disaster.

HS-2.4.4: Emergency Shelter Providers. Continue the agreements with designated emergency shelter sites to provide space for emergency supply containers.

HS-2.4.5: Community Areas for Refuge and Keep-safes (ARKs). Maintain and expand the availability of City ARKs through Block Leadership and volunteer efforts to adopt an ARK.

HS-2.4.6: 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.

HS-2.4.7: Block Leader Awareness. Expand support for and awareness of the Block Leader program, including ensuring residents are aware of

emergency contacts including how to contact their block leader.

HS-2.4.8: Block Leader Communication.
Conduct annual outreach to Block Leaders regarding evacuation procedures and where to find information in the event of an emergency to communicate to their blocks.

POLICY HS-2.5: EMERGENCY PUBLIC INFORMATION

Maintain Cupertino's Alert, Warning, and Notification (AWN) Program ~~an Emergency Public Information program~~ to be used during emergency situations.

STRATEGIES:

HS-2.5.1: Communication Methods. Use ~~the local~~ Cupertino TV channel, Cupertino Radio 1670 AM, AlertSCC, the City's website, City~~Internet~~ social media accounts, and other communication methods to transmit information to the public in multiple formats and languages appropriate to the demographics of Cupertino~~citizenry~~.

HS-2.5.2: Public Information Office. Activate the ~~Public~~ Joint Information System in coordination with the Sheriff and the Fire Department to provide accurate information to the public as needed.

POLICY HS-2.6: FIRE PREVENTION AND EMERGENCY PREPAREDNESS

Promote fire prevention and emergency preparedness through Ce~~i~~ity-initiated public education programs, the ~~government television channel, the Internet, and the Cupertino Scene~~ City Channel, the City's website, the Cupertino Scene, and other social media platforms.

POLICY HS-2.7: HAZARD PREPAREDNESS

Ensure that members of the community are adequately prepared for potential hazard scenarios, including geologic and seismic hazards, wildfire hazards, flooding hazards, extreme heat, poor air quality, and hazardous materials releases. Leverage the Neighborhood Block Program to advertise and incorporate its members into training efforts to expand outreach and engagement.

STRATEGIES:

HS-2.7.1: Emergency Preparedness. Publish and promote emergency preparedness tips, activities, and drills for the community. Use the City social media accounts and the website to provide safety tips and actively assist in neighborhood drills and safety exercises to increase participation and build community support. ~~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-2.7.2: Neighborhood Response Groups.
Encourage participation in Community Emergency Response Team (CERT) training by neighborhood groups and community-based organizations. ~~Train neighborhood groups to care for themselves during disasters. Activity assist in neighborhood drills and safety exercises to increase participation and build community support.~~

HS-2.7.3: ~~Dependent~~Vulnerable 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~~ the facilities conform to ~~all~~ health and safety requirements, including emergency planning, training, response exercises, and employee education.

HS-2.7.4: ~~Foreign Language~~ Multilingual Emergency Information.
~~Obtain translated~~ Prepare emergency preparedness materials in English, Spanish, and other languages commonly spoken in the community and ~~make them available~~ distribute to appropriate foreign language populations.

HS-2.7.5: Critical Needs for Vulnerable Populations During Emergencies.
Coordinate with local service organizations and regional public sector partners on response for food and other critical needs access to vulnerable populations including home-bound seniors and other mobility-limited residents living alone.

HS-2.7.6: Overlapping Hazards and Sensitive Populations.
Identify areas of overlapping hazards on sensitive populations, as data becomes available, in future Vulnerability Assessments and prioritize capital improvement, development regulations and other city projects to increase resilience such areas.

POLICY HS-2.8: EDUCATIONAL AND OUTREACH MATERIALS
Support education and expanded awareness by residents and business of ~~Distribute relevant educational and outreach materials to the public to help residents understand appropriate fire mitigation~~hazard preparedness and response activities, such as vegetation management and~~,~~ defensible space, evacuation routes, home resilience retrofits, and emergency evacuation procedures ~~during a fire hazard~~.

STRATEGY:

HS-2.8.1: Distribution of Hazard Preparedness Information.
Distribute relevant community educational and engagement materials broadly through in-person and virtual means, including the school districts, the Senior Center, City facilities, and the Cupertino Scene.

POLICY HS-2.9: POOR AIR QUALITY EVENT ASSISTANCE
Work with local agencies and community-based organizations to provide resources to help residents respond to poor air quality events

(e.g., transportation to resilience centers and supply free N95 masks).

POLICY HS-2.10: DISASTER MEDICAL RESPONSE

Continue to coordinate with the appropriate County agencies and local emergency medical 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-2.10.1: Memorandum of Understanding (MOU) with Emergency Medical Clinics.
Work with Santa Clara County to develop an MOU with local emergency clinics to provide services in the event of an emergency. 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.~~

POLICY HS-2.11: EVACUATION ROUTES

Ensure that evacuation routes into and out of the city have adequate capacity, safety, and viability in the event of an emergency. Ensure evacuation route designations are reviewed and updated, as needed.

STRATEGIES:
HS-2.11.1: Evacuation Route Coordination.
Continue to ~~C~~coordinate with emergency responders, the County, and Caltrans to ensure evacuation routes are designed and maintained to remain accessible during emergency evacuations and to ensure changes to roadways continue to maintain adequate emergency ingress and egress.

Red Flag Warnings

A red flag warning is issued by the National Weather Service before and during fire weather conditions. These conditions include strong winds, low humidity, and warm temperatures, increasing the risk of wildfires starting and spreading quickly.

HS-2.11.2: High-Hazard Day Parking Management.
In coordination with the Santa Clara County Sheriff's Office and Santa Clara County Fire Department, update the Emergency Operations Plan to establish a master list of streets with parking restrictions on designated evacuation corridors during Red Flag Warnings and other high-hazard days to preserve lane width, sight distance, and emergency access.

HS-2.11.3: Managed Traffic Control During Evacuations.
Coordinate with the Santa Clara County Fire Department, Santa Clara County Sheriff's Office, and Caltrans to implement managed traffic control measures during evacuations, including turn restrictions, signal timing adjustments, lane conversions, and route or ramp closures as needed

to maximize outbound flow from evacuation areas.

HS-2.11.4: Dynamic Traffic Assignment:
Conduct a citywide dynamic traffic assignment evacuation study, with each update of the Health and Safety Element, no less than every 8 years, modeling time-to-safety conditions under multiple evacuation scenarios given current land uses and projected future buildout. The study shall evaluate the benefits of different proposed supply-side and demand-side policies to improve the effectiveness of evacuations.

HS-2.11.5: Infrastructure Prioritization.
Prioritize infrastructure improvements on roadways that serve as a single point of ingress and egress for residential areas, particularly in a High or Very High fire hazard severity zone or in an area with a slope of at least 30%.

POLICY HS-2.12: EVACUATION AWARENESS
Ensure the public is aware of evacuation zones, evacuation routes, and how to access emergency alerts and evacuation orders. Annually provide information to members of the public about evacuation concerns for all relevant hazards, including designated evacuation routes and evacuation plan details, through multiple formats and in multiple languages, including via the Cupertino Scene and other means of communication.

STRATEGIES:

HS-2.12.1: Evacuation Mapping Availability.
Ensure easy-to-use evacuation maps, with identifiable neighborhood names, major intersections and landmarks, are prepared and made available digitally.

HS-2.12.2: Evacuation Planning Coordination.
Coordinate with schools, parks and open space areas, golf courses, and other community facilities on evacuation plans, including staging and traffic control protocols.

POLICY HS-2.13: INGRESS AND EGRESS STANDARDS FOR NEW DEVELOPMENT
Require new subdivisions or multiple unit developments of five or more lots or units to have at least two ingress and egress routes ~~that account for existing and proposed traffic evacuation volumes at buildout~~, if they are located in at least one of these areas:

- An area with evacuation constraints, as shown in **Figure HS-3,** Evacuation-Constrained Residential Areas
- A High or Very High Fire Hazard Severity Zone, as shown in **Figure HS-4**, Fire Hazard Severity Zones.
- An area with a slope of 30% or more.

Encourage new subdivisions or multiple unit developments of five or more lots or units not located in an

area identified in this policy to have at least two ingress and egress routes.

POLICY HS-2.14: ~~SECONDARY~~ INGRESS AND EGRESS FOR EXISTING DEVELOPMENT

Encourage ~~secondary means of ingress and egress in areas with evacuation constraints, as shown in~~existing developments of five or more units in areas of evacuation constraints, as shown in Figure HS-3, Evacuation-Constrained Residential Areas, ~~and slopes of less than 30% when new subdivisions of five lots or more or developments with five units or more are proposed~~to provide secondary means of ingress and egress.

~~**POLICY HS-2.15: SECONDARY INGRESS AND EGRESS SUPPORT FOR NEW DEVELOPMENT.**~~

~~Encourage new subdivisions or multiple unit developments of five or more lots or units not located in an area with evacuation constraints (as shown in **Figure HS-3**, Evacuation-Constrained Residential Areas), a High or Very High Fire Hazard Severity Zone, or an area with a slope of 30% or more, to have at least two ingress and egress routes. Require secondary means of ingress and egress in areas with evacuation constraints and slopes of 30% or greater when new subdivisions of five lots or more or developments with five units or more are proposed.~~

POLICY HS-2.15: EMERGENCY ACCESS

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

STRATEGIES:

HS-2.15.1: Roadway Design. Create an all-weather emergency road system to serve ~~rural~~ hillside and wildfire-prone areas.

HS-2.15.2: Hillside Access Routes. Require new hillside development to have frequent grade breaks in access routes, which must comply with applicable fire access and egress standards, to ensure a timely response from fire personnel.

POLICY HS-2.16: EVACUATION ROUTE ASSESSMENT REQUIREMENT

Require new subdivisions or developments of five or more lots or units to prepare, and to submit to the City for review, an evacuation route assessment, if they are located in at least one of these areas:

- An area with evacuation constraints, as shown in **Figure HS-3,** Evacuation-Constrained Residential Areas
- A High or Very High Fire Hazard Severity Zone, as shown in **Figure HS-4**, Fire Hazard Severity Zones.
- An area with a slope of 30% or more.

STRATEGY:

HS-2.16.1: Mitigate Evacuation Constraints.
Projects that conduct an evacuation review assessment which determines that the project would add evacuation demand shall identify feasible measures to avoid, reduce, or offset added evacuation constraints.

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~~ caused fire disasters, and to 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-3.1: EARLY PROJECT REVIEW

Involve the Santa Clara County Fire Department in the early design stage of all development projects ~~requiring public review~~ to ensure ~~Fire~~ ~~Department~~ input and modifications as needed.

POLICY HS-3.2: FIRE RESPONSE TIMES

Ensure Santa Clara County Fire Department maintains required response time standards for emergency response in Cupertino.

STRATEGIES:

HS-3.2.1: Response Time Standards. Work with Santa Clara County Fire Department to establish citywide response time standards, accounting for time for call, turnout time, travel time, and on scene time for both fire and emergency medical response.

POLICY HS-3.3: ADEQUATE FIRE PROTECTION

In coordination with the Santa Clara County Fire Department, require that new development be located where

fire and emergency services have sufficient capacity to meet project needs and require that the developer provide infrastructure or equipment necessary, proportional to the project's fire service demand, to maintain adequate fire protection to comply with critical response time standards, proportional to the project's fire service demand. Increased population density and new building types will impact fire life safety, capacity of water supply, traffic flow, and will contribute to greater demand on public safety resources.

STRATEGIES:

HS-3.3.1: Development Review for Adequate Service.

Review development projects, in coordination with the Santa Clara County Fire Department, to evaluate fire response times and ensure adequate service to new development. Evaluation should consider both on-site and off-site conditions that may affect emergency response, including roadway width, access to water supply, and visibility of street signage. When development projects do not meet fire response times, require that project applicants provide infrastructure, equipment, or improvements necessary to ensure adequate fire protection and compliance with critical response time standards.

HS-3.3.2: City Fire Code.

To the extent feasible, conduct periodic fire safety inspections to ensure compliance with adopted codes.

POLICY HS-3.4: NEW DEVELOPMENT IN ~~MODERATE, HIGH AND VERY~~ HIGH FIRE HAZARD SEVERITY ZONES.

Ensure new developments in designated Fire Hazard Severity Zones (see Figure HS-4) comply with the City's Municipal Code and applicable State codes, including the California Building Code, California Fire Code, California Wildland-Urban Interface Code, and California Fire Safe Regulations, or equivalent standards. Applications for proposed development must include a site plan, planting plan, irrigation plan, plan for management and long-term maintenance of defensible space, water supply source and access, as required by State or City codes and regulations. ~~regulations, and policies, including the Require review by the Community Development Department and Santa Clara County Fire Department of proposed construction projects and conceptual landscaping plans in the designated Fire Hazard Severity Zones.~~

STRATEGY~~IES~~:

~~**HS-3.5.1: Review in High and Very High Fire Hazard Severity Zones.**~~

~~High and Very High Fire Hazard Severity Zones identified by CAL FIREthe first , whether ministerial or discretionary, (see **Figure HS-4**, Fire Hazard Severity Zones). Plans for proposed development in such areas shall include, at a minimum:~~

- ~~Site plan, planting plan, planting palette, and irrigation plan with designs to reduce the risk of fire hazards and with consideration to~~

~~site conditions, including slope, structures, and adjacencies.~~

- ~~Development and maintenance of defensible space.~~
- ~~More than one point of ingress and egress to improve evacuation, emergency response, and fire equipment access and adequate water infrastructure for water supply and fire flow that meets or exceeds the standards in the California State Minimum Fire Safe Regulations (commencing with Section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3, commencing with Section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).~~
- ~~Class A roofing assemblies for new and replacement roofs.~~
- ~~Location and source of anticipated water supply.~~

HS-3.4.1: Review in Moderate Fire Severity Hazard Zones.

In the event, the California Fire, Wildland Urban Interface, and Building Codes require the implementation of different building standards in the Moderate Fire Severity Hazard Zones, ensure these are included in all permit plans prior to issuance of the first permits whether ministerial and discretionary.

POLICY HS-3.5: RESIDENTIAL DEVELOPMENT IN HIGH FIRE HAZARD SEVERITY ZONES ~~RISK AREAS~~

Avoid new subdivisions or residential development of multiple units in the High Fire Hazard Severity Zone, except as required by State law, in order to protect public safety, reduce wildfire risks, and enhance emergency response capabilities.

POLICY HS-3.6: LAND USE AND ZONING CHANGES IN VERY HIGH FIRE HAZARD SEVERITY ZONES~~RISK AREAS~~

Prohibit additional developments of multiple units and/or subdivisions in Very High Fire Hazard Severity Zone on properties with primary access from private roads and slopes greater than 30% that would increase residential density or intensity of the existing land use, except as such developments may be required by State law.

POLICY 3.7: FIRE-RESISTANT MATERIALS.

Ensure improvements and new structures within a High or Very High Fire Hazard Severity Zone comply with California Building Code Chapter 7A, California Fire Code, California Wildland Urban Interface Code, and California Fire Safe Regulations, or equivalent standards, to ensure fire-resistant roof coverings and exterior building materials. The Chief Building Official shall enforce these standards in alignment with Health and Safety Code Section 13143.4, making necessary findings as required.

STRATEGY:

HS-3.7.1: Wildfire Assistance Program.

Explore establishing a wildfire financial assistance program to help property owners enact and maintain wildfire home hardening and defensible space

features and practices on their properties.

POLICY 3.8: FIRE PROTECTION PLANS.
Require fire protection plans for all new development projects in the High and Very High Fire Hazard Severity Zone, including plans for long-term, comprehensive, fuel reduction and management. The ~~main components of a~~ fire protection plan shall be consistent with California Fire Code, Chapter 49.~~, and include:~~

~~Risk Analysis~~

~~Fire Response Capabilities~~

~~Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance~~

~~Mitigation Measures and Design Considerations for Non-Conforming Fuel Modification~~

~~Wildfire Education Maintenance and Limitations~~

POLICY HS-3.9: ACCESS FOR FIRE AND EMERGENCY VEHICLES AND EQUIPMENT
Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds applicable State and local standards.~~the California State Fire Safe Regulation standards. These standards are found in two parts of the California Fire Safe Regulations (California Code of Regulations, Title 14, Division 1.5, Chapter 7): Subchapter 2, Articles 1-5 (commencing with Section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with Section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).~~ Developments must also comply with the applicable provisions of the California Fire Code ~~(California Code of Regulations, Title 24, Part 9)~~ to ensure fire safety measures, including emergency access, fire protection systems, and defensible space requirements, align with statewide fire prevention standards.

STRATEGIES:

HS-3.9.1: Fire Hazards Response Support
Support measures that help firefighting crews and emergency response teams respond to fire hazards or work under low-visibility conditions, such as high-visibility signage for streets and building addresses that meet or exceed the standards in the California Fire Safe Regulations (Title 14 of the California Code of Regulations, Division 1.5, Chapter 7, Articles 2 and 3, Sections 1273 and 1274).

HS-3.9.2: Defensible Space.
Require all properties in the Fire Hazard Severity Zones to establish and maintain defensible space around dwellings and inhabited structures, in accordance with City and State standards.

~~**POLICY HS-3.3: EMERGENCY ACCESS**~~
~~Ensure adequate emergency access is provided for all new hillside development.~~ (Moved)

~~STRATEGIES:~~

~~**HS-3.3.1: Roadway Design.**~~
~~Create an all-weather emergency road system to serve rural areas.~~ (Moved)

~~**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.~~ (Moved)

HS-3.9.3: Hillside Road Upgrades.
Require new hillside development to upgrade existing access roads to meet State Minimum Fire Safe Regulations, California Fire Code, and City Municipal Code standards.

POLICY HS-3.10: PRIVATE RESIDENTIAL ELECTR~~ON~~IC SECURITY GATES
Discourage the use of private residential electr~~on~~ic security gates and selectively permit them only if they do not~~that~~ act as a barrier to emergency personnel.

STRATEGIES:
HS-3.10.1: Location.
Strongly discourage electric gates in high fire and very high fire hazard zones. Allow electric gates only in locations permitted by the Municipal Code. Require a fence exception for electric security gates in ~~certain areas~~ areas as outlined in the Municipal Code.

HS-3.10.2: Access to Gates.
Where electr~~on~~ic security gates are allowed, require the installation of an approved key switch to ~~be accessed~~enable vehicle access by the Fire ~~District~~Department.

~~**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 InternetCity's website, and the Cupertino Scene.~~ (Moved)

~~**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-3.11: 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.~~ Require new subdivisions and development within High and Very High Fire Hazard Severity Zones to obtain a water service extension letter, to include fire flow capacity, from water service providers prior to receiving development permit approval to ensure adequate water services for both fire protection and daily use.

POLICY HS-3.12: LONG-TERM WATER SUPPLY
Ensure long-term water supply for fire suppression and maintaining fire-flows.

POLICY HS-3.13: COORDINATION OF LONG-TERM WATER SUPPLY
~~Encourage cooperation between~~ Coordinate with water utility

~~companies~~ providers and the Santa Clara County Fire Department ~~in order~~ to keep water supply systems in pace with growth and firefighting service needs.

STRATEGIES:

HS-3.13.1: Adequate Water Service. Identify and improve areas lacking adequate water service for firefighting, including capacity for peak load under a reasonable worst-case wildland fire scenario determined by the Santa Clara County Fire Department.

HS-3.13.2: Sufficient Water Flow. Work with San Jose Water, California Water Service, and Santa Clara County Fire Department to ensure that fire hydrants are adequately distributed throughout Cupertino and have sufficient water flow.

POLICY HS-3.14 FIRE SAFE ROADWAYS

Require existing public and private roadways in Fire Hazard Severity Zones to comply with current fire safety regulations for new subdivisions and development.

STRATEGY:

HS-3.14.1: City Roadways Repair and Maintenance.

Prepare and implement plans to repair and maintain City-owned roadways as needed to meet current standards.

HS-3.14.2: Private Roadways Repair and Maintenance.

~~and r~~Require private property owners to ~~do the same~~prepare and implement plans to repair and maintain privately-owned roadways to meet current local and State standards, ~~and~~ given the absence of other site constraints. At time of development review, ensure maintenance agreements are recorded running with the land to ensure that street maintenance is the shared responsibilities of the owners. These standards include road standards for evacuation and emergency vehicle access, vegetation clearance, and other requirements of the California Fire Safe Regulations, Title 14 of the California Code of Regulations, Division 1.5, Chapter 7).~~: specifically, Subchapter 2, Articles 1-5 (commencing with Section 1270, SRA Fire Safe Regulations); and Subchapter 3, Article 3 (commencing with Section 1299.01, Fire Hazard Reduction Around Buildings and Structures Regulations).~~

POLICY HS-3.15: ROADSIDE VEGETATION MANAGEMENT

Collaborate with Santa Clara County Fire Department to provide roadside fuel reduction, defensible space, and vegetation management, particularly along evacuation routes.

POLICY HS-3.16: FIRE-RESISTANT LANDSCAPING

Promote the use of fire-resistant landscaping in public and private developments. In High and Very High Fire Severity Zones, fire- resistant landscaping shall be required.

POLICY HS-3.17: FUEL BREAKS AND EMERGENCY ACCESS ROUTES

Coordinate with CAL FIRE and Santa Clara County Fire Department to maintain existing fuel breaks and emergency access routes for effective fire suppression.

POLICY HS-3.18: RECOVERY AND REDEVELOPMENT AFTER A LARGE FIRE.

Develop and update programs as needed that ensure recovery and redevelopment after a large fire and that reduce future vulnerabilities to fire hazard risks through site

preparation, redevelopment layout design, fire-resistant landscape planning, and home hardening building design and materials.

~~**POLICY HS-3.20: LAND USE AND ZONING CHANGES IN VERY HIGH FIRE RISK AREAS**~~

~~Prohibit additional developments of multiple units and/or subdivisions in Very High Fire Hazard Severity Zone on properties with primary access from private roads and slopes greater than 30% that would increase residential density intensity of the existing land use.~~ (Repeat of Policy HS-3.6)

Goal HS-4

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

PUBLIC SAFETY~~POLICE SERVICES~~

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, Block Leader 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 new development ~~applications~~to ensure new development provides ~~for~~ appropriate security and public safety measures.

POLICY HS-4.3: FISCAL IMPACTS

~~Recognize~~ Require that new development accounts for fiscal impacts to the County Sheriff, Santa Clara County Fire, and City of Cupertino when approving various land use mixes.

POLICY HS-4.4: LAW ENFORCEMENT RESPONSE TIMES

Ensure that law enforcement emergency response times consistently meet the standards of the Santa Clara County Sheriff's Department.

~~POLICY HS-4.4: RESPONSE TIMES~~

~~Ensure that fire and emergency response times consistently meet the standards of the Santa Clara County Fire Department. Santa Clara County Fire~~

~~Department aims for the first unit to arrive to 90 percent of all emergent structural fires and emergency medical service incidents within seven minutes and forty seconds. For the purpose of this standard, response times are measured from when the call location is verified by the dispatcher, to the arrival of the first unit at the scene of the incident. For all other emergent incidents, the benchmark is for the first unit to arrive to 90 percent of emergent incidents within eight minutes and forty seconds.~~

STRATEGY:

HS-4.4.1: Response Time Review. Include requirements to conduct regular reviews of response time data for police service to identify trends, patterns, and areas for improvement in contracts for Sheriff services.

GOAL HS-5

Reduce risks associated with geologic and seismic hazards

GEOLOGIC AND SEISMIC HAZARDS

POLICY HS-5.1: SEISMIC AND GEOLOGIC REVIEW PROCESS

Evaluate new development proposals and subdivisions within mapped ~~potential~~ seismic and geologic hazard zones using a formal seismic/geologic review process. Use ~~**Table HS-3**~~General Plan Appendix E ~~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 and residential codes 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 and residential codes.

HS-5.1.3: Geologic Review.
Continue to implement and update geologic review procedures for g~~G~~eologic r~~R~~eports required by ~~the Municipal Code~~General Plan Appendix **E** 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 disclose risks to ~~tell~~ future residents in ~~high-risk~~all fault zones ~~areas about the risk~~ and inform them that more information is in City Hall

records. This requirement 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.~~ (Moved)

~~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.~~ (Moved)

~~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.~~ (Moved)

~~HS-5.2.5: Foreign Language Emergency Information.~~

~~Obtain translated emergency preparedness materials and make them available to appropriate foreign language populations.~~ (Moved)

POLICY HS-5.3: HILLSIDE GRADING

Establish standards and procedures to limit grading on hillside properties, particularly those that change natural flows or flatten existing slopes. 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.

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 as required by the Santa Clara County Fire Department and/or the Santa Clary County Department of Environmental Health. 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 (such as childcare uses or elder care) ~~or sensitive populations~~ if such hazardous conditions cannot be mitigated to an acceptable level of risk.

STRATEGIES:

HS-6.2.1: Environmental Site Assessment (ESA) required. Establish and maintain requirements for environmental site assessment report review in conjunction with development. Continue to implement requirements in the Municipal Code to ensure environmental site assessment is completed prior to project approval, including, but not limited to, projects proposed on former industrial sites or others where there is a possibility of contamination.

HS-6.2.2: Soil Remediation required. Ensure that conditions of approval are incorporated to require soil

remediation with the appropriate regulatory agency with any ministerial or discretionary project approvals. Continue to implement the requirement that soil remediation be conducted prior to issuance of any permits involving ground/soil disturbing activity.

HS-6.2.3: Other Hazardous Materials Review required.

If there is sufficient evidence about the presence or storage of hazardous materials in properties within 500 feet of property on which new residential or uses for sensitive populations are proposed, review by the authority controlling the presence of the hazardous materials is required to ensure that any requirements from that authority are included in any approvals, whether ministerial or discretionary.

HS-6.2.4: Hazardous Materials Storage.

Continue to enforce current federal, State, County, and local standards and regulations related to hazardous materials storage.

POLICY HS-6.3: ~~ELECTROMAGNETIC FIELDS (EMF)~~RADIOFREQUENCY STUDIES

Continue to require radiofrequency studies for wireless developments during ~~Ensure that projects meet Federal and State standards for EMF emissions through~~ the development review process to confirm that projects meet federal and State standards.

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~~ and 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 for residences and businesses.

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 and electronic waste collection for residents in partnership with the s~~S~~olid w~~W~~aste contractor or the County.

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

POLICY HS-6.6: RADIOFREQUENCY AWARENESS AND TRANSPARENCY

Continue to address public concerns about radiofrequency exposure and promote science-based awareness by educating residents, ensuring regulatory compliance, and fostering transparency through effective community outreach and communication led by the Technology, Information, and Communications Commission (TICC) as needed.

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~~Maintain an evacuation map for the flood hazard areas in Cupertino on ~~and distribute it to the general public~~the City's website.

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.

Coordinate with the Santa Clara Valley Water District to m~~M~~aintain and update the Stevens Creek Dam Failure Plan~~a Stevens Creek Dam Failure Plan~~, including an alert, warning, and notification system~~s~~ 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~~ W~~w~~ork 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 or open space, provided the use ~~it~~ does no~~'~~t conflict with ~~F~~federal, State, ~~and~~ or regional requirements.

POLICY HS-7.4: CONSTRUCTION IN FLOODPLAINS

Continue to implement land use, zoning, and building and residential 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~~ Prohibit new residential development or subdivisions in ~~regulated flood plains~~the 100-year floodplain or regulatory floodway which increases the density or intensity of the existing land use. Regulate all types of redevelopment in ~~natural~~ flood-plains to prevent increased density. 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).

HS-7.4.4 Land Uses in Flood Plains.
Encourage the development of compatible open space/recreational uses in regulatory floodways and the 100-year floodplain that are consistent with the provisions of the Federal Emergency Management Agency for floodway uses.

HS-7.4.5 Update Flood Damage Prevention Ordinance.
Review and update Municipal Code Section 16.52, *Prevention of Flood Damage*, to maintain compliance with the National Flood Insurance Program and ensure development standards consider changes to the flood plain due to climate change.

~~POLICY HS-7.5: HILLSIDE GRADINGRestrict 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.~~
(Moved)

POLICY HS-7.5: STABILITY OF EXISTING WATER STORAGE FACILITIES

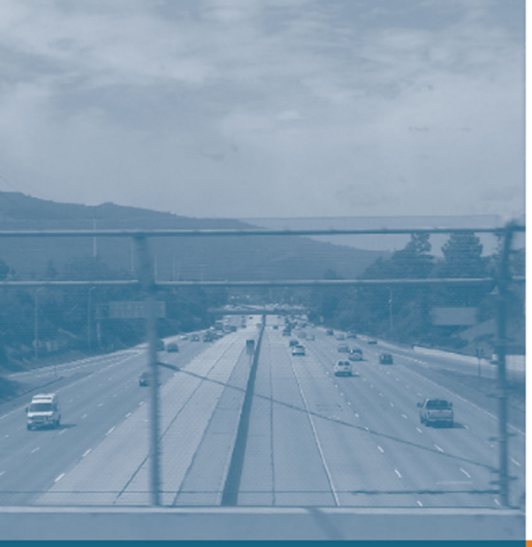
~~Assure~~ Ensure the structural integrity of water storage facilities.

STRATEGY:

HS-7.5.1: 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.

POLICY HS-7.6: REDUCE FLOOD RISK

Reduce flood risk by maintaining effective stormwater drainage systems, regulating construction, and updating stormwater infrastructure design requirements, and retrofitting storm drainage systems as needed.



GOAL HS-8

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

NOISE~~OISE~~

The City seeks to ensure that the community continues to enjoy a high quality of life through reduced 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. Ensure that new development, including multifamily residential and non-residential development, complies with the applicable interior noise standards established in the Building Code, to the satisfaction of the Building Official. Prior to issuance of any certificates of occupancy, require post-construction monitoring or reporting by an acoustical engineer certifying that the project meets the applicable interior noise standards.

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 before permitting or installation of a sound wall, and, if the installation is permitted, ensure~~that~~ the sound wall ~~blends with the~~

~~neighborhood~~is architecturally enhanced with veneer or other decorative cladding, maintained at the expense of the sponsors of the sound wall or, if a landscape screen is permitted, that the landscaping is continuously maintained and replaced as necessary to ensure a green screen, maintained at the expense of the sponsors of the sound wall. 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. Implement the noise requirements of the Municipal Code in Titles 10 and 17.

POLICY HS-8.4: FREEWAY DESIGN AND NEIGHBORHOOD NOISE

Ensure that roads and development along ~~Highway~~ State Route 85 and Interstate 280 are designed and improved in a way that minimizes neighborhood noise, including the installation of rubberized asphalt paving. Support the use of rubberized asphalt on freeways and streets that are not in the City's jurisdiction but are within the City's Sphere of Influence. Coordinate with appropriate agencies on projects to implement this requirement.

STRATEGIES:

HS-8.4.1: Freeway Soundwalls.
Support the evaluation and installation of freeway soundwalls where needed to reduce noise impacts on adjacent neighborhoods. This includes considering support for: (1) new soundwalls along freeway segments where none currently exist; and (2) evaluating whether existing soundwalls provide adequate noise attenuation for nearby residents.

HS-8.4.2: Freeway Soundwall Sponsorship.
Establish a process for neighborhoods affected by freeway noise to request City sponsorship of an application to the appropriate agency for further analysis, study, and potential installation of a soundwall. If studies by the appropriate agency determine that freeway soundwall installation is geometrically infeasible, the agency should consider alternative noise buffers, including sound fences, acoustic panels, vegetation, or other feasible treatments.

HS-8.4.3: Noise Impact Analysis.
Continue to coordinate with Caltrans and VTA on freeway projects within or adjacent to Cupertino, including interchange projects, to ensure that required environmental review evaluates potential noise impacts and identifies feasible mitigation measures, as applicable.

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

Conduct interagency coordination with Santa Clara County~~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.

HS-8.7.3: Street Signage.
Consider whether restrictions on the movement of quarry related trucks between certain quiet hours on thoroughfares, such as Stevens Creek Boulevard and Foothill Boulevard can be implemented and install signage to help enforce adopted regulations.

POLICY HS-8.8: NOISE GENERATING USES

Prior to approving noise generating uses, including public or private recreational uses, within or adjacent to established residential areas, ensure the proposed noise generating use includes adequate noise mitigation measures, including, but not limited to, posted rules and regulations which limit hours of operation, to meet the City's adopted noise standards.

POLICY HS-8.9: NOISE GENERATING GARDEN EQUIPMENT

Continue to implement and maintain Municipal Code standards regulating noise-generating garden equipment, including lawn mowers, leaf blowers, and similar equipment.

GOAL HS-9

Increase community resilience to climate change hazards

CLIMATE CHANGE RESILIENCE

The City seeks to ensure that the community adapts to the impacts of climate change through sustainable practices, innovative design techniques, public outreach and education, and agency collaboration.

POLICY HS-9.1: EQUITABLY LOCATED RESILIENCE CENTERS

Establish one or more community resilience centers in Cupertino. Ensure that resilience centers are not in areas at risk from hazard impacts to the extent possible, are equitably located, offer refuge from extreme heat and extreme weather events as well as poor air quality and disasters, and are equipped with renewable energy generation and backup power supplies. Such facilities should be in easily accessible locations and available to all community members.

STRATEGY:

HS-9.1.1: Evacuation Shelter Planning and Siting.

Update the Emergency Operations Plan to identify and maintain a network of temporary evacuation shelters and community refuge sites outside the Fire Hazard Severity Zones to reduce travel demand on primary evacuation corridors.

POLICY HS-9.2: RESILIENCE CENTER TRANSIT SERVICES

Work with transit, dial-a-ride, and paratransit service providers to provide transit services to and from community resilience centers for seniors, people with disabilities, and residents with access and functional needs.

POLICY HS-9.3: SUSTAINABLE WATER SUPPLIES

Maintain a sustainable, long-term water supply to meet community needs with consideration of the effects of more frequent and severe drought events. Work with water providers to implement extensive water conservation measures and ensure sustainable water supplies, including for fire suppression needs.

STRATEGY:

HS-9.3.1: Water Conservation.
Promote water conservation measures in all public and private development, in landscaping and potable water use.

HS-9.3.2: Dual-plumbing Water Systems.
Adopt an ordinance for installation of dual-plumbing water systems that utilize greywater for irrigation at new residential construction.

HS-9.3.3: Water Conservation Outreach and Education.
Continue to work with water providers to support their water conservation and water efficiency rebate programs as directed by Environmental Resources Policy ES-7.9. Additionally, ensure that information about water conservation and rebate programs is targeted to households with low- or fixed incomes, older adults, persons with disabilities who have access needs, historically underserved communities, and to youth via schools.

POLICY HS-9.4: EXTREME HEAT
Recognize extreme heat as a significant hazard in Cupertino, integrating extreme heat into emergency preparedness and response procedures.

HS-9.4.1: Heat Action Plan.
Develop a citywide Heat Action Plan, as an annex to the Emergency Operations Plan, which would include the identification of cooling centers to provide sufficient coverage for the entire community, in coordination with emergency service and utility providers, the minimum hours and thresholds for cooling center operations, and transportation options to cooling centers.

HS-9.4.2: Extreme Heat Vulnerable Neighborhoods.
Identify neighborhoods most at risk from extreme heat and prioritize extreme heat support and resources for these locations and for communities recognized as uniquely vulnerable to extreme heat in the Vulnerability Assessment.

HS-9.4.3: Extreme Heat Protection for Outdoor Workers.
Continue to work with labor and business groups to ensure education and enforcement of State and federal standards for extreme heat. Support industry partnerships to strengthen extreme heat resilience.

POLICY HS-9.5: EXTREME HEAT MITIGATION.
Review public projects and new nonresidential and multi-family projects for opportunities to reduce their contribution to the urban heat island effect through site design, building materials, landscaping, or other project features that provide shading and cooling onsite, and continue to support City led and

community-based efforts to increase shade and provide cooling city-wide.

STRATEGIES:

HS-9.5.1: Shading and Heat-Mitigating Materials.
Coordinate with the Santa Clara Valley Transportation Authority to increase shading and heat-mitigating materials on pedestrian walkways and at transit stops, including the planting and maintenance of trees for shade.

HS-9.5.2: Enhanced Shading for New Nonresidential and Multifamily Development.
Require new developments to enhance shading on properties by planting trees and installing shade structures and other cooling/shading features, including active cooling in high-use public hubs and corridors.

HS-9.5.3: Enhanced Shading for Existing Nonresidential and Multifamily Development.
Require the inclusion of vegetation and shade trees and/or shade structures in existing non-residential and multi-family residential parking lots, to reduce the urban heat island effect, where one or more of the following occur:

- A change of use is proposed, or
- More than 25% of the site is being modified, or
- ~~when~~ A new parking lot is proposed, or
- An existing parking lot is substantially retrofitted in compliance with the Municipal Code ~~to reduce the urban heat island effect~~.

HS-9.5.4: Enhanced Shading for Existing Parking Lots.
Encourage the inclusion of vegetation and trees and/or shade structures in existing parking lots. ~~Work with existing property owners and new developments to enhance shading on properties by promoting the installation of shade structures and features. As part of this effort, encourage the inclusion of vegetation and trees and/or shade structures in existing parking lots. Require the inclusion of vegetation and shade trees and/or shade structures in existing parking lots where a change of use is proposed or more than 25% of the site is being modified or when a new parking lot is proposed in compliance with the Municipal Code to reduce the urban heat island effect.~~

HS-9.5.5: Artificial Turf.
Assess public and environmental health impacts and environmental resource use associated with the installation and use of synthetic or artificial turf on City owned or managed property.

Environmentally regenerative features refer to design or operational features of buildings, infrastructure, and systems that help to restore, renew, or regenerate the natural environment. Examples include green roofs and living walls, permeable pavement, on-site renewable energy generation, rainwater harvesting and reuse, or use of low-impact materials and construction techniques.

POLICY HS-9.6: SUSTAINABLE, ENERGY-EFFICIENT, AND ENVIRONMENTALLY REGENERATIVE FEATURES

Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase community access to these features.

STRATEGIES:

HS-9.6.1: ~~Electrification~~Decarbonization.

Continue to encourage carbon free appliances in new and existing buildings to the extent allowed by State and federal law. This could include adopting amendments to the Building Code to increase energy efficiency standards beyond the State's requirements to the extent feasible by the law and educating residents and businesses about health and air quality benefits of carbon free appliances.~~discourage the installation of natural gas appliances and utilities in new installations or replacement projects. To the extent allowed by state law, require the installation of all electric appliances and utilities.~~

HS-9.6.2: Permeable Pavement.

Require permeable pavement (not installed on any impervious materials) in areas used for surface parking and/or driveways, such as driveways in single family homes and in at least 25% of open parking spaces in other types of projects.

POLICY HS-9.7: DROUGHT-TOLERANT GREEN INFRASTRUCTURE

Promote the use of drought-tolerant green infrastructure, including landscaped areas, as part of cooling strategies in public and private spaces.

STRATEGIES:

HS-9.7.1: Drought-tolerant Green Infrastructure in Public Projects.

Identify opportunities for and install green infrastructure in conjunction with street improvement projects and other capital improvement projects.

HS-9.7.2: Drought-tolerant Green Infrastructure in Private projects.

Identify opportunities for and encourage the installation of green infrastructure in conjunction with private development.

POLICY HS-9.8: NATURAL RESOURCES AND INFRASTRUCTURE

Encourage public and private projects to use natural resources and nature-based solutions to absorb the impacts of climate-related hazards and associated natural hazards, as feasible.

POLICY HS-9.9: SEVERE WEATHER RESILIENCY

Increase the resiliency of City-owned structures to severe weather events, including high wind events, and support homeowners and business owners to increase the resilience of their buildings and properties through retrofits, weatherization, and other improvements.

POLICY HS 9.10: NATURE-BASED SOLUTIONS.

Where feasible, encourage the use of nature-based solutions, existing

natural features, and/or ecosystem processes, or the restoration thereof, when considering alternatives for the conservation, preservation, or sustainable management of open space. This may include, but is not limited to, aquatic or terrestrial vegetated open space, systems and practices that use or mimic natural processes, and other engineered systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

POLICY HS-9.11: RESILIENT URBAN FOREST

Increase carbon sequestration by expanding and enhancing the urban tree canopy and green space, prioritizing equitable distribution, climate-resilient design, and long-term ecosystem health.

STRATEGIES:

HS-9.11.1 Urban Forest Management Plan.

Develop an Urban Forest Management Plan (UFMP) that identifies the framework and strategy for expanding the tree canopy in Cupertino. Ensure the sustainability of the urban forest (including all existing and new trees) by including tree maintenance and protection, attention to safety, resident engagement, and the planting of native and climate-appropriate trees.

HS-9.11.2: Tree Replacement

Adopt and maintain regulations to protect trees, including but not limited to public trees. Ensure trees protected are climate appropriate. Ensure any trees that may be removed to accommodate new houses are replaced at a minimum ratio of 2:1.

Consider amending the Protected Tree Ordinance of the Municipal Code to require a minimum of two replacement trees for any tree removal.

Refer to the Climate Action Plan and General Plan Environmental Resources Element for additional strategies in support of the urban forest and tree planting, including Strategies ES-2.1.5, ES-5.1.1, and ES-5.1.2